

**OREGON
ENVIRONMENTAL QUALITY
COMMISSION MEETING
MATERIALS 10/03/2002**



**State of Oregon
Department of
Environmental
Quality**

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Oregon Environmental Quality Commission Meeting

October 3-4, 2002

Columbia County Fair Grounds
4-H Building (see attached map)
Columbia County, Oregon

Thursday, October 3

Beginning at 11:00 a.m., in the 4-H Building, Columbia County Fair Grounds

Tape #
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1A, 2A,
3A

A. Long Term Planning Session: Update on Strategic Directions and Future Goals - 11:00A
 In 2001, the Commission assisted DEQ in developing four Strategic Directions for the agency: (1) delivering excellence in performance and product, (2) protecting Oregon's water, (3) protecting human health and the environment from toxics, and (4) involving Oregonians in solving environmental problems. At this meeting, DEQ Director Stephanie Hallock and Helen Lottridge, DEQ Management Services Division Administrator, will update the Commission on the Strategic Directions and executive performance measures DEQ is using to track progress. Director Hallock will also describe DEQ's development of long-term targets and seek feedback from Commissioners.

3A

B. *Rule Adoption: Revision of Fees and Requirements for Wastewater System Operator Certification - 1:26p
 State law requires DEQ to certify operators of domestic wastewater systems (i.e., treatment plants and collection sewers) and charge fees to recover our certification costs. In 2001, the Legislature eliminated state general fund for DEQ's wastewater certification program and directed us to raise fees to cover a program budget shortfall this biennium. Mike Llewelyn, DEQ Water Quality Division Administrator, will propose rules to raise fees for various small businesses (which will pay \$50 to \$60 annually), individual operators (fees will range from \$50 to \$100), and public and private wastewater system owners (fee increases will be based on facility size). Changes would also clarify requirements for operator qualification and examination, DEQ program administration, and compliance and enforcement.

MOTION BY: HARVEY BENNETT
2ND: MARK REEVE

3A

C. *Rule Adoption: Renewal of Water Quality General Permits for Fish Hatcheries (NPDES 300-J) and Log Pond Operations (NPDES 400-J) - 1:30p
 DEQ issues two general permits to control the quality of water discharged from fish hatcheries and from log ponds: the National Pollutant Discharge Elimination System (NPDES) 300-J and NPDES 400-J, respectively. These permits expired in July 2001 and have since been administratively extended. At this meeting, Mike Llewelyn, DEQ Water Quality Division Administrator, will ask the Commission to renew these permits in rule so that existing permittees and new applicants may be assigned to the revised permits. Under the renewed permits, fish hatcheries would be required to monitor water temperature and nutrient levels, and submit temperature management plans, pollution prevention plans and records of chemical usage. Log pond operations (managed by saw mills and pulp mills) would have new temperature monitoring requirements.

MOTION: MARK REEVE
2ND: DIDDI MALARKEY

3A, 4A

D. Action Item: Revision of MOU between the Commission and Oregon Department of Agriculture for the Confined Animal Feeding Operations Permit Program - 1:53p
 In 1993, the Oregon Legislature directed the Commission to enter into a Memorandum of Understanding (MOU) with the Oregon Department of Agriculture (ODA) to transition the

MOTION: DIDDI MALARKEY
2ND: HARVEY BENNETT

Tape #
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Confined Animal Feeding Operation (CAFO) permit program from DEQ to ODA. The resulting 1995 MOU transferred the state Water Pollution Control Facilities permit program for CAFOs from DEQ to ODA. In 2001, the Legislature directed DEQ to transfer the National Pollutant Discharge Elimination System permit program for CAFOs to ODA as well, upon approval from the Environmental Protection Agency. Mike Llewelyn, DEQ Water Quality Division Administrator, and Charles Craig, ODA Deputy Director, will propose a revised MOU to the Commission for approval, which would transfer the NPDES program and define the roles of each agency during the transfer process.

4A, 5A, 6A

E. Informational Item: Status of Port Westward Energy Facilities Project - 2:30p
Neil Mullane, DEQ Northwest Region Administrator, and Bob Baumgartner, DEQ Water Quality Manager, will update the Commission on a proposed wastewater discharge permit for the Port Westward Energy Facilities Project. This project would construct two natural gas fired power plants and one ethanol production plant on land owned by the Port of St. Helens (Port) adjacent to the Columbia River near Clatskanie. The Port has applied to DEQ for a wastewater permit for the collection and discharge of treated wastewater to the Columbia River from the new facilities. At a future meeting, DEQ will ask the Commission to make a determination about the impact of this project on Columbia River water quality. At this meeting, following the Department's presentation, a panel of selected speakers will provide broader background on the proposed facilities and potential issues.

6A, 7A

F. Discussion Item: Potential Benefits and Issues associated with the Port Westward Project, including an Opportunity for Public Comment - 4:25p
The Commission will hear comments from interested citizens and stakeholders on the Port Westward Project, and discuss potential benefits and issues.

Following the meeting, the Commission will hold a reception with local officials at approximately 6:00 p.m. The reception will take place at the Best Western Oak Meadows Inn, Willamette Room, located at 585 S. Columbia Highway in St. Helens, Oregon.

Friday, October 4

Beginning at 8:30 a.m., in the 4-H Building, Columbia County Fair Grounds

At approximately 8:00 a.m., the Commission will hold an executive session to consult with counsel concerning legal rights and duties regarding current and potential litigation against the Department. Executive session is held pursuant to ORS 192.660(1)(h). Only representatives of the media may attend, and media representatives may not report on any deliberations during the session.

1B

G. Approval of Minutes - 8:36A (MULTIPLE MOTIONS)
The Commission will review, amend if necessary, and approve draft minutes of the July 25-26 and the September 6, 2002, Environmental Quality Commission meetings.

1B

H. Action Item: Consideration of Pollution Control Facilities Tax Credit Requests - 8:39A
In 1967, the Oregon Legislature established the Pollution Control Facility Tax Credit Program to help businesses meet environmental requirements. The program was later expanded to encourage investment in technologies and processes that prevent, control or reduce significant amounts of pollution. In 1999, nonpoint source pollution control facilities (such as wood chippers) were made eligible for the program. At this meeting, the Commission will consider tax credit

(MULTIPLE MOTIONS)

applications for facilities that control air and water pollution, recycle solid and hazardous waste, reclaim plastic products, and control pollution from underground storage tanks.

1B

- I. ***Rule Adoption: Revised Pollution Control Facility Tax Credit Rules - 8:46A**
 In September 2001, the EQC adopted temporary rules to clarify the Pollution Control Facility Tax Credit program, based on changes made by the 2001 Legislature. At this meeting, Holly Schroeder, Acting DEQ Management Services Division Administrator, will propose permanent rules to clarify the program and to authorize DEQ to certify wood chipper tax credit applications on behalf of the Commission. Delegating approval of wood chipper applications to the Department will allow DEQ to process these tax credit requests much more efficiently.

MOTION: MARK REEVE
JMP: HARVEY BENNETT

1B

- J. **Director's Dialogue - 8:50A**
 Stephanie Hallock, DEQ Director, will discuss current events and issues involving the Department and state with the Commission.

1B, 2B

- K. **Informational Item: Update on Status of Umatilla Chemical Agent Disposal Facility - 9:10A**
 Wayne Thomas, DEQ Administrator of the Chemical Demilitarization Program, will update the Commission on the Umatilla Chemical Agent Disposal Facility, including the progress of trial burns and the status of future plans.

2B

- L. ***Rule Adoption: Dry Cleaning Facilities and Dry Stores - 9:20A**
 The 2001 Legislature modified the laws governing DEQ's dry cleaner program, which was established in 1995 to provide dry cleaners some protection from clean-up liability in exchange for meeting more stringent environmental standards than other waste generators. Dick Pedersen, DEQ Land Quality Division Administrator, will propose rules to implement the 2001 law and describe DEQ's existing dry cleaner program, which previously was outlined only in guidance and statute. The program includes requirements for dry cleaners to minimize waste and manage hazardous waste to protect the environment, and makes the Dry Cleaner Environmental Response Account available for cleaning up contaminated sites.

MOTION: MARK REEVE
JMP: DIDI MALALLEY

2B, 3B

- M. ***Rule Adoption: Hazardous Materials Emergency Response Rules - 9:56A**
 Large volumes of oil are shipped regularly along the Columbia River and Oregon coast, and hazardous materials are transported through the state on highways and by rail. DEQ's Emergency Response program coordinates with industries, other agencies and individuals to prevent spills of these materials and to respond to spills when they happen. In addition, DEQ coordinates cleanup of various other material spills, including pesticides, hazardous chemicals and common but dangerous substances. At this meeting, Dick Pedersen, DEQ Land Quality Division Administrator, will propose rules to clarify the roles of DEQ, spill responders and responsible parties during emergencies involving oil and hazardous material spills. The changes are designed to improve Oregon's overall spill response process and to clarify procedures for the maritime industry and other material handlers.

MOTION: HARVEY BENNETT
JMP: DIDI MALALLEY

3B

- N. ***Rule Adoption: Ballast Water Management Rules - 10:13A**
 Recognizing the international nature of invasive marine species problems, the 2001 Legislature passed a new law requiring ships to exchange ballast water in the open ocean prior to discharging any ballast water near the Oregon coast. Currently, ballast water exchange is optional under U.S. Coast Guard rules. The new law gave DEQ outreach, monitoring and enforcement roles in ballast water management, and required vessels to report their ballast water management plans and activities to DEQ. At this meeting, Dick Pedersen, DEQ Land Quality Division Administrator,

MOTION: DIDI MALALLEY
JMP: HARVEY BENNETT

will propose rules to implement the law and give guidance to vessel operators for meeting the new requirements.

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3B, 4B O.

Action Item: Authorize Oregon Pollution Control Bonds for DEQ Clean-up Program - 10:54A
DEQ's Orphan Site Program cleans up areas that pose a threat to the environment or to public health when no other party takes responsibility to conduct the work. This program relies on the issuance of Pollution Control Bonds to fund high priority cleanups. DEQ is currently working on about 40 active orphan cleanup projects and has identified 15 new sites that need funding. At this meeting, Dick Pedersen, DEQ Land Quality Division Administrator, will ask the Commission to authorize DEQ and the State Treasurer to issue and sell up to \$4 million in state bonds to fund the Orphan Site program as approved by the 2001 Legislature.

MOTION: DIODI MALARKEY
2ND: MARK REEVE

4B, 5B P.

***Rule Adoption: Grants Pass and Klamath Falls PM₁₀ Maintenance Plans and associated industrial rule revisions - 11:13A**

Prior to 1988 and 1992, respectively, the Grants Pass and Klamath Falls areas violated the federal clean air standard for particulate matter ten microns and smaller (PM₁₀). When inhaled, PM₁₀ particles accumulate and aggravate respiratory conditions, particularly asthma. Today, both Grants Pass and Klamath Falls claim a 10-year history of meeting the standard. Accordingly, DEQ developed rules to change the air quality designation for these areas from "nonattainment" to "maintenance" for PM₁₀, and adopt local 10-year plans designed to ensure these areas stay in compliance with the federal standard. At this meeting, Andy Ginsburg, DEQ Air Quality Division Administrator, will ask the Commission to adopt the new rules and local plans, in recognition of the progress made by these communities and to allow more flexibility for transportation projects and growth. In addition, Mr. Ginsburg will propose temporary rules to delay the extension of a distance requirement for ozone impacts to sensitive areas, in order to provide more time for data collection and scientific evaluation.

(MULTIPLE MOTIONS)

5B

***Rule Adoption: Rule Revisions Regarding Rulemaking and Contested Case Hearings - 12:01P**

Anne Price, DEQ Administrator of the Office of Compliance and Enforcement, will present procedural rules related to agency rulemaking and the process for contested case hearings. Specifically, new rules would update DEQ's reference to the Attorney General's "model rules" for rulemaking, and make permanent a temporary rule allowing certain entities appearing before the Department in a contested case hearing to be represented by a person other than an attorney.

MOTION: HARVEY BENNETT
2ND: DIODI MALARKEY

5B, 6B

Action Item: Request from U.S. Army Corps of Engineers for a Waiver to the Total Dissolved Gas Water Quality Standard on the Columbia River - 12:07P

The Commission will consider a request from the U.S. Army Corps of Engineers for a variance to Oregon's total dissolved gas water quality standard in order to conduct a spill test at The Dalles Dam in mid-October 2002. Russell Harding, DEQ Columbia River Water Quality Coordinator, will present the proposed variance and introduce a representative from the Corps to explain the request.

MOTION: MARK REEVE
2ND: DIODI MALARKEY

6B

S. Commissioners' Reports - 12:47P

Adjourn

Upcoming Environmental Quality Commission Meetings: December 12-13, 2002

Agenda Notes

*Hearings have been held on Rule Adoption items and public comment periods have closed. In accordance with ORS 183.335(13), no comments may be presented by any party to either the Commission or Department on these items at any time during this meeting.

Copies of staff reports for individual agenda items are available by contacting Emma Snodgrass in the Director's Office of the Department of Environmental Quality, 811 SW Sixth Avenue, Portland, Oregon 97204; telephone 503-229-5990, toll-free 1-800-452-4011 extension 5990, or 503-229-6993 (TTY). Please specify the agenda item letter when requesting reports. If special physical, language or other accommodations are needed for this meeting, please advise Emma Snodgrass as soon as possible, but at least 48 hours in advance of the meeting.

4B **Public Forum:** The Commission will break the meeting at approximately 11:30 a.m. on Friday, October 4, to provide members of the public an opportunity to speak to the Commission on environmental issues not part of the agenda for this meeting. Individuals wishing to speak to the Commission must sign a request form at the meeting and limit presentations to five minutes. The Commission may discontinue public forum after a reasonable time if a large number of speakers wish to appear. In accordance with ORS 183.335(13), no comments may be presented on Rule Adoption items for which public comment periods have closed.

Note: Because of the uncertain length of time needed for each agenda item, the Commission may hear any item at any time during the meeting. If a specific time is indicated for an agenda item, an effort will be made to consider that item as close to that time as possible. However, scheduled times may be modified if participants agree. Those wishing to hear discussion of an item should arrive at the beginning of the meeting to avoid missing the item.

Directions to Columbia County Fairgrounds

For a map of the fairgrounds, see: <http://www.co.columbia.or.us/Fairgrounds/Fairgrounds.asp>.

From Portland:

If traveling northbound on Interstate 5, take the I-405 exit and then the US Highway 30/West exit to St. Helens on Highway 30/West.

If traveling southbound on Interstate 5, take the US Highway 30/West exit and cross the Willamette River over the Freemont Bridge. Travel to St. Helens on Highway 30/West.

As you approach St. Helens, turn Left (West) onto Gable Road, which will be the first four-way traffic signal light when approaching from Portland. There is a US Bank and a Safeway on the left of this intersection, and a Wal-Mart on the right. Continue on Gable Road approximately 1 3/4 miles. Gable Road turns into Bachelor Flat Road. Continue to the Stop sign, at a "T" intersection. Continue straight through the intersection, where Bachelor Flat Road turns into Saulser Road. The Fairgrounds are on the right and you may enter the Fairgrounds at Gate 2.

After entering Gate 2, the 4-H building will be directly ahead. Parking is available along this route, or if full, exit Gate 4 for additional parking, including handicapped.

From Longview, WA:

Traveling on Interstate 5, take the exit marked "To Oregon" (Exit 36). Follow the signs which will lead to crossing the Lewis & Clark Bridge and Highway 30. Travel southeast on Highway 30, towards Rainier, continue heading south to St. Helens. Once in St. Helens, continue going southeast to the Gable Road intersection which will have a four-way traffic signal light. There is a US Bank and a Safeway on the right of this intersection, and a Wal-Mart on the left. Turn right (west) on to Gable Road and continue for approximately 1 3/4 miles where Gable Road turns into Bachelor Flat Road. Continue to the Stop sign at a "T" intersection. Continue straight through the intersection, where Bachelor Flat Road will become Saulser Road. The Fairgrounds are on the right and you may enter the Fairgrounds at Gate 2.

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Directions to Best Western Inn, 585 S Columbia River Hwy, St. Helens

The Best Western is located on Highway US-30. Follow the directions above for reaching US-30 if coming from Longview or Portland. The Best Western will be on your right if coming from Portland; on your left if coming from Longview.

From Columbia County Fairgrounds to the Best Western; you may retrace the above directions to return to US-30. Turn left onto US-30. The Best Western will be on the right.

Environmental Quality Commission Members

The Environmental Quality Commission is a five-member, all volunteer, citizen panel appointed by the governor for four-year terms to serve as DEQ's policy and rule-making board. Members are eligible for reappointment but may not serve more than two consecutive terms.

Melinda S. Eden, Chair

Melinda Eden is an attorney, farm owner and former reporter for the Associated Press. Her education includes a J.D. from the University of Oregon and a certificate in Natural Resources from the University of Oregon Law School. Chair Eden was appointed to the EQC in 1996 and reappointed for an additional term in 2000. She became vice chair in 1998 and chair in 1999. Chair Eden currently resides in Milton-Freewater.

Tony Van Vliet, Vice Chair

Tony Van Vliet received his B.S. and M.S. in Forest Production at Oregon State University. He has a Ph.D. from Michigan State University in Wood Industry Management. Commissioner Van Vliet served sixteen years as a member of the Public Lands Advisory Committee, has been a member of the Workforce Quality Council, served sixteen years as a State Representative on the Legislative Joint Ways and Means Committee, and served eighteen years on the Legislative Emergency Board. He currently resides in Corvallis. Commissioner Van Vliet was appointed to the EQC in 1995 and reappointed for an additional term in 1999.

Mark Reeve, Commissioner

Mark Reeve is an attorney with Reeve & Reeve in Portland. He received his A.B. at Harvard University and his J.D. at the University of Washington. Commissioner Reeve was appointed to the EQC in 1997 and reappointed for an additional term in 2001. He serves as the Commission's representative to the Oregon Watershed Enhancement Board, for which he is Co-Chair.

Harvey Bennett, Commissioner

Harvey Bennett is a retired educator. He has taught and administered at all levels of education, concluding as president emeritus of Rogue Community College. Commissioner Bennett has a B.S., M. Ed. and Ph.D. from the University of Oregon. Commissioner Bennett was appointed to the EQC in 1999 and he currently resides in Grants Pass.

Deirdre Malarkey, Commissioner

Deirdre Malarkey is a graduate of Reed College and has graduate degrees from the University of Oregon in library science, Middle Eastern urban and arid land geography, and a Ph.D. in geography. Commissioner Malarkey has served on the Water Resources Commission, the Governor's Watershed Enhancement Board, and the Natural Heritage Advisory Board for the State Land Board. Commissioner Malarkey was appointed to the EQC in 1999 and she currently resides in Eugene.

Stephanie Hallock, Director

Department of Environmental Quality

811 SW Sixth Avenue, Portland, OR 97204-1390

Telephone: (503) 229-5696 Toll Free in Oregon: (800) 452-4011

TTY: (503) 229-6993 Fax: (503) 229-6124

E-mail: deq.info@deq.state.or.us

Mikell O'Mealy, Assistant to the Commission

Telephone: (503) 229-5301

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Confined Animal Feeding Operation (CAFO) permit program from DEQ to ODA. The resulting 1995 MOU transferred the state Water Pollution Control Facilities permit program for CAFOs from DEQ to ODA. In 2001, the Legislature directed DEQ to transfer the National Pollutant Discharge Elimination System permit program for CAFOs to ODA as well, upon approval from the Environmental Protection Agency. Mike Llewelyn, DEQ Water Quality Division Administrator, and Charles Craig, ODA Deputy Director, will propose a revised MOU to the Commission for approval, which would transfer the NPDES program and define the roles of each agency during the transfer process.

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S. Commissioners' Reports

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Copies of staff reports for individual agenda items are available by contacting Emma Snodgrass in the Director's Office of the Department of Environmental Quality, 811 SW Sixth Avenue, Portland, Oregon 97204; telephone 503-229-5990, toll-free 1-800-452-4011 extension 5990, or 503-229-6993 (TTY). Please specify the agenda item letter when requesting reports. If special physical, language or other accommodations are needed for this meeting, please advise Emma Snodgrass as soon as possible, but at least 48 hours in advance of the meeting.

Public Forum: The Commission will break the meeting at approximately 11:30 a.m. on Friday, October 4, to provide members of the public an opportunity to speak to the Commission on environmental issues not part of the agenda for this meeting. Individuals wishing to speak to the Commission must sign a request form at the meeting and limit presentations to five minutes. The Commission may discontinue public forum after a reasonable time if a large number of speakers wish to appear. In accordance with ORS 183.335(13), no comments may be presented on Rule Adoption items for which public comment periods have closed.

Note: Because of the uncertain length of time needed for each agenda item, the Commission may hear any item at any time during the meeting. If a specific time is indicated for an agenda item, an effort will be made to consider that item as close to that time as possible. However, scheduled times may be modified if participants agree. Those wishing to hear discussion of an item should arrive at the beginning of the meeting to avoid missing the item.

Directions to Columbia County Fairgrounds

For a map of the fairgrounds, see: <http://www.co.columbia.or.us/Fairgrounds/Fairgrounds.asp>.

From Portland:

If traveling northbound on Interstate 5, take the I-405 exit and then the US Highway 30/West exit to St. Helens on Highway 30/West.

If traveling southbound on Interstate 5, take the US Highway 30/West exit and cross the Willamette River over the Freemont Bridge. Travel to St. Helens on Highway 30/West.

As you approach St. Helens, turn Left (West) onto Gable Road, which will be the first four-way traffic signal light when approaching from Portland. There is a US Bank and a Safeway on the left of this intersection, and a Wal-Mart on the right. Continue on Gable Road approximately 1 3/4 miles. Gable Road turns into Bachelor Flat Road. Continue to the Stop sign, at a "T" intersection. Continue straight through the intersection, where Bachelor Flat Road turns into Saulser Road. The Fairgrounds are on the right and you may enter the Fairgrounds at Gate 2.

After entering Gate 2, the 4-H building will be directly ahead. Parking is available along this route, or if full, exit Gate 4 for additional parking, including handicapped.

From Longview, WA:

Traveling on Interstate 5, take the exit marked "To Oregon" (Exit 36). Follow the signs which will lead to crossing the Lewis & Clark Bridge and Highway 30. Travel southeast on Highway 30, towards Rainier, continue heading south to St. Helens. Once in St. Helens, continue going southeast to the Gable Road intersection which will have a four-way traffic signal light. There is a US Bank and a Safeway on the right of this intersection, and a Wal-Mart on the left. Turn right (west) on to Gable Road and continue for approximately 1 3/4 miles where Gable Road turns into Bachelor Flat Road. Continue to the Stop sign at a "T" intersection. Continue straight through the intersection, where Bachelor Flat Road will become Saulser Road. The Fairgrounds are on the right and you may enter the Fairgrounds at Gate 2.

After entering Gate 2, the 4-H building will be directly ahead. Parking is available along this route, or if full, exit Gate 4 for additional parking including handicapped.

Directions to Best Western Inn, 585 S Columbia River Hwy, St. Helens

The Best Western is located on Highway US-30. Follow the directions above for reaching US-30 if coming from Longview or Portland. The Best Western will be on your right if coming from Portland; on your left if coming from Longview.

From Columbia County Fairgrounds to the Best Western; you may retrace the above directions to return to US-30. Turn left onto US-30. The Best Western will be on the right.

Environmental Quality Commission Members

The Environmental Quality Commission is a five-member, all volunteer, citizen panel appointed by the governor for four-year terms to serve as DEQ's policy and rule-making board. Members are eligible for reappointment but may not serve more than two consecutive terms.

Melinda S. Eden, Chair

Melinda Eden is an attorney, farm owner and former reporter for the Associated Press. Her education includes a J.D. from the University of Oregon and a certificate in Natural Resources from the University of Oregon Law School. Chair Eden was appointed to the EQC in 1996 and reappointed for an additional term in 2000. She became vice chair in 1998 and chair in 1999. Chair Eden currently resides in Milton-Freewater.

Tony Van Vliet, Vice Chair

Tony Van Vliet received his B.S. and M.S. in Forest Production at Oregon State University. He has a Ph.D. from Michigan State University in Wood Industry Management. Commissioner Van Vliet served sixteen years as a member of the Public Lands Advisory Committee, has been a member of the Workforce Quality Council, served sixteen years as a State Representative on the Legislative Joint Ways and Means Committee, and served eighteen years on the Legislative Emergency Board. He currently resides in Corvallis. Commissioner Van Vliet was appointed to the EQC in 1995 and reappointed for an additional term in 1999.

Mark Reeve, Commissioner

Mark Reeve is an attorney with Reeve & Reeve in Portland. He received his A.B. at Harvard University and his J.D. at the University of Washington. Commissioner Reeve was appointed to the EQC in 1997 and reappointed for an additional term in 2001. He serves as the Commission's representative to the Oregon Watershed Enhancement Board, for which he is Co-Chair.

Harvey Bennett, Commissioner

Harvey Bennett is a retired educator. He has taught and administered at all levels of education, concluding as president emeritus of Rogue Community College. Commissioner Bennett has a B.S., M. Ed. and Ph.D. from the University of Oregon. Commissioner Bennett was appointed to the EQC in 1999 and he currently resides in Grants Pass.

Deirdre Malarkey, Commissioner

Deirdre Malarkey is a graduate of Reed College and has graduate degrees from the University of Oregon in library science, Middle Eastern urban and arid land geography, and a Ph.D. in geography. Commissioner Malarkey has served on the Water Resources Commission, the Governor's Watershed Enhancement Board, and the Natural Heritage Advisory Board for the State Land Board. Commissioner Malarkey was appointed to the EQC in 1999 and she currently resides in Eugene.

Stephanie Hallock, Director

Department of Environmental Quality

811 SW Sixth Avenue, Portland, OR 97204-1390

Telephone: (503) 229-5696 Toll Free in Oregon: (800) 452-4011

TTY: (503) 229-6993 Fax: (503) 229-6124

E-mail: deq.info@deq.state.or.us

Mikell O'Mealy, Assistant to the Commission

Telephone: (503) 229-5301

10/3/02 - EAC Meeting Item A Handout.

Compliance Rate for Compliance Monitoring Actions

State:	Delaware
Program Area:	Hazardous Waste
Time Period:	1999 to 2001

Is the time period the same for all data? Yes

column 1	column 2	column 3 Is this # complete?	column 4 *	column 5	column 6	column 7	column 8 *	column 9	column 10	column 11 *	column 12
Sector, facility type or program focus	Compliance Monitoring Actions (CMA)	No. of facilities with CMAs conducted	Reason for CMA	Methodology for CMA	No. of facilities in each category	Percent of facilities where CMAs were conducted	No. of facilities with violations	total number of violations	compliance rate (%) for facilities where CMAs were conducted	No. of facilities w/ significant violations**	Significant Violation Non-compliance rate (%)
1999 LQGs	CI	25	Regularly Scheduled/General	Unannounced	80	31.25	14	86	44.00	2	8.00
1999 TSDFs	CI	6	Regularly Scheduled/General	Unannounced	8	75.00	4	15	33.33	2	33.33
2000 LQGs	CI	19	Regularly Scheduled/General	Unannounced	72	26.39	10	44	47.37	2	10.53
2000 TSDFs	CI	8	Regularly Scheduled/General	Unannounced	8	100.00	5	15	37.50	2	25.00
2001 LQGs	CI	11	Regularly Scheduled/General	Unannounced	60	18.33	5	35	54.55	0	0.00
2001 TSDFs	CI	3	Regularly Scheduled/General	Unannounced	8	37.50	1	4	66.67	0	0.00

* Use the standard definitions for these columns.

**Defined as those sites being identified as Significant Non-Compliers

LQGs = Large Quantity Generators of Hazardous Waste

TSDFs = Permitted Hazardous Waste Treatment, Storage, and Disposal Facilities

Graphic Overview of DEQ's Strategic Directions

<p><u>Priorities</u> define DEQ's strategic priorities for achieving the Agency's mission & vision</p>	<p><u>Key Actions</u> represent important actions tracked by the Executive Management Team</p>	<p><u>Targets</u> identify desired outcomes to be achieved by certain dates</p>	<p><u>Executive Measures</u> measure progress toward achieving the outcomes</p>
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DEQ's

Mission is to be a leader in restoring, maintaining and enhancing the quality of Oregon's air, water and land.

Vision is to work collaboratively with all Oregonians for a healthy, sustainable environment

- Values are:**
- Environmental Results
 - Customer Service
 - Partnerships
 - Excellence & Integrity
 - Teamwork
 - Employee Growth
 - Diversity

BENCHMARKS
Provide an indication on the condition of the environment

I. Performance Excellence

1. Make it easier to do business with DEQ.
2. Reinforce effect management.
3. Emphasize cross-program environmental problem solving.
4. Ensure understandable and equitable compliance and enforcement.

II. Protect Oregon's Water

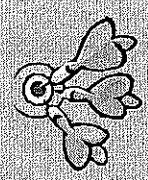
1. Implement a comprehensive watershed approach.
2. Develop a strategy to encourage broader reuse of wastewater.

III. Protection from Toxics

1. Prepare for and minimize the danger posed by the catastrophic release of dangerous chemicals.
2. Develop and implement a strategy to reduce toxic releases to air, water and land.
3. Reduce risks from toxic contaminants already in our environment.

IV. Involve Oregonians

1. Encourage personal actions by Oregonians to protect the environment.
2. Provide Oregonians with better access to information on local environmental conditions and issues.
3. Support communities in solving local problems.



Under Development

1. Results from customer service survey
- 2a. Completed performance appraisals
- 2b. Completed work plans
- 2c. Operating budget review
- 2d. Results from employee survey
3. Cross-program work plans completed
- 4a. Progress on Div. 12 rulemaking
- 4b. Enforcement Excellence (Being developed)

- 1a. Statewide measures (OWQI, TMDL development status, permit backlog status)
- 1b. Basin reports
2. Percent of wastewater reclaimed

- 1a. Preparedness measures
- 1b. Umatilla project measures
2. Toxics measures, including air toxics (Being developed)
- 3a. Number of mines assessed
- 3b. Sediments measures

1. Survey of Oregonians behaviors
2. IMAP progress measure, web-hits
- 3a. CST measures
- 3b. EPOC measures

PROGRAM PLANS
Provide information on the priorities of the divisions, programs & sections

Success at DEQ with the Executive Measures

DEQ is taking concrete steps towards being a more outcome-oriented, success-oriented agency that bases its decisions on a strong foundation of information. We are accomplishing this through an increased use of environmental and management measures. For the past 12 months, the Executive Management Team at Oregon DEQ has reported data reflecting changes in environmental conditions and the activities intended to effect those conditions.

The Good News

Water Quality – Water quality as measured by the Water Quality Index shows significant improvement in Oregon's rivers. 47% of our monitored sites have shown improvements in the past ten years. More recently, Oregon has agreed with the US EPA to complete 310 pollutant reduction strategies (TMDLs) by the year 2004. As of this summer, we have already completed 392.

Excellence in Performance and Product – The results from a survey of those doing business with the Air and Water Quality Divisions show that between 60 and 70% of representatives from the regulated community rate the service from DEQ as good or excellent. Less than 10% gave negative ratings.

Reducing Exposure to Toxics – In response to the September 11, 2001 terrorist attacks, DEQ and other state agencies developed a state preparedness plan to ensure readiness for biological or chemical attacks; for DEQ this also applies to other environmental emergencies. DEQ's recently implemented preparedness program passes its responsiveness testing with flying colors. During weekly tests of a pager system, a DEQ Executive Management Team member can always be contacted within 15 minutes to initiate activities of the Emergency Response Team.

Engaging Oregonians – EPOC (Environmental Partnership with Oregon Communities) continues to result in environmental improvements at the community level. In 2001, an additional 12 communities received funding or agreed to increased compliance tracking as a result of working cooperatively with DEQ.

The Bad News

Water quality – The Water Quality Division continues to struggle with keeping up on its backlog of permits to be re-issued. Expanding demand and budget limitations make it difficult for the Division to achieve progress on this task.

Excellence in Performance and Product – The implementation of a series of cross-program initiatives is going slower than we initially desired. The Executive Management Team is focusing its efforts on five of the nine activities.

Reducing Exposure to Toxics – While not necessarily an increase in toxics exposure, our ability to track the level of toxics exposures and the sources of those toxics is challenging. This year, we are focusing on mercury and hope to have some baseline information on the sources of mercury deposition to contaminated sediments and that relationship to fish tissue concentrations.

Engaging Oregonians – Budget cuts have required the Executive Management Team to delay the implementation of an outreach strategy that will result in changing behaviors of Oregonians. We intend to move forward on this initiative in the near future.

The Baseline is Set for Next Year's News

Excellence in Performance and Product (Managing our staff)– Program managers are increasing their attention to carry out performance appraisals in a timely fashion. In June, two-thirds of the appraisals were completed on time. We are also tracking the staff turnover at DEQ recognizing that strong management is at least one factor that allows us to retain our skilled workers.

Excellence in Performance and Product (Managing our budget) We have developed a tracking mechanism to ensure that each program is spending its resources in a fashion consistent with the operating budget. Each quarter we report the degree to which programs are within spending targets. Our goal is to reduce the “surprises” and improve our ability to forecast expenditures.

Reducing Exposure to Toxics (abandoned mines) – Abandoned mines are a significant source of pollutant loadings via sediments that move downstream from old sites. In order to address these pollutants, DEQ must identify and assess the potential threats. In 2001, we identified 72 such sites and completed 34 assessments. The measure allows us to track number of sites identified and assessed, and may be revised to include intermittent clean-up steps.

Reducing Exposure to Toxics (Umatilla) – DEQ is working with the US government to reduce the risk from chemical agents stored at the Umatilla Army Depot. The munitions destruction process is still in the testing stage, but when the destruction process begins, our measures will allow the us to report the reduced risk from remaining munitions as well as the air quality changes resulting from the incineration activities.

Engaging Oregonians – The transfer of information to the regulated community and other Oregon stakeholders is enhanced through the intelligent use of computerized information technologies. DEQ has just completed its Information Management Assessment Project and identified some strategies that will take advantage of the new technologies. We already track the use of information on our external web site and the number of permitting functions that are accessible through the internet. The changes in these numbers will give us a better understanding of our success and the opportunities for greater improvement.

Measures for future development

Water quality – The Division of Water is working to increase the re-use of water and is establishing a program for water reclamation through its work with permitted facilities and the watershed

programs in place across the state. A first step is to identify the key strategies to accomplish this work. Then we will want to identify data exists and what new information we might need to support a measure that quantifies our progress at achieving the strategies outlined and the increases in water re-use.

Reducing Exposure to Toxics – Measuring mercury reductions from DEQ’s activities in Oregon will give us a better understanding of the role of DEQ activities in addressing the complex problem of mercury contamination. We will also expand our toxics program and the toxics tracked within our Executive Measures process based upon the results of our mercury reduction program and data reporting. The development of an air toxics measure is also planned for the near future.

Engaging Oregonians (CSTs and Oregon municipalities) –The Community Solutions Teams are an important mechanism for DEQ to work with municipalities and other state agencies to address challenges in environmental infrastructure development. While we already track the number of communities that we work with, we want to focus our measures and our activities on communities for which DEQ participation will result in significant environmental improvements. The Regional offices have developed criteria for setting priorities and we are going to track our efforts in working with the specific communities that we believe will yield the greatest success from our participation in this program.

Engaging Oregonians (personal behavior changes) DEQ is initiating a pilot in two communities to change individuals behaviors that affect water quality. Washing cars on your lawn, rather than in your driveway, reducing the use of lawn pesticides, and cleaning up after pets are some target activities that should lead to increased water quality. As a first step, we are doing market research to establish a baseline for these behaviors.

Excellence in Performance and Product – The Office of Compliance and Enforcement is implementing a systematic review of its enforcement process. The sequence of inspection, notification (NON), referral and formal enforcement follow-through is the basis for ensuring a more effective compliance and enforcement program. Measures showing the progress in moving through the stages is in draft form. In addition, the Enforcement program is evaluating equity in the penalty assessment process. The mechanism for carrying this out is to work through the Division 12 rules and related enforcement guidance. A measure showing progress going through those procedures is in development.

A foundation for future results

For all of our priorities - The Executive Management Team has developed measures and a reporting mechanism that has already increased the focus on results as we evaluate selected measures at each quarterly Executive Measures review sessions. In order to maintain the momentum behind the Executive Measures process, we are working with each of the Program Management Teams to designate a set of long term targets for environmental improvements and management progress.

Priority One: Involve Oregonians in Solving Environmental Problems

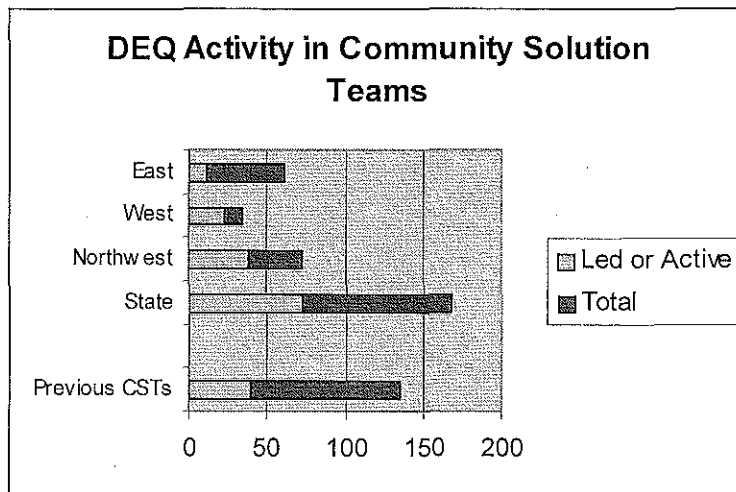
Key Action: Support communities in solving local problems.

DA Lead: Neil, report prepared by Peggy Halferty and Pete Dalke

- *Are CST and EPOC efforts helping DEQ assist communities to solve local problems?*

Executive Measures:

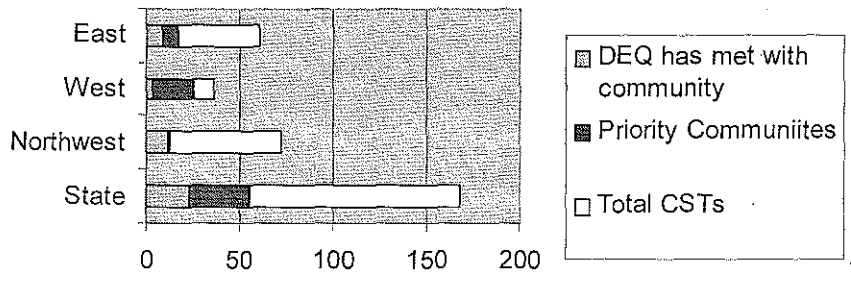
1. The number of CST projects where DEQ has a leadership or "significant" role.
Regional CST projects with "significant" DEQ involvement are those where:
 - a) DEQ takes the lead in coordinating the project
 - b) DEQ program staff spend at least one hour in supporting the project



2. The number of CST communities identified as high priority communities for DEQ that meet with the Regional Community Solutions teams.

In order to ensure that DEQ efforts on CST accomplish the greatest benefit, each region has identified priority communities and records those cases where the community has held its first meeting with the CST. As of September, the Regions have identified 55 high priority communities compared to 168 communities identified for CST activities. DEQ has met with 23 of these high priority communities.

DEQ activity in Priority CSTs



The CST Executive Measures Story

During the summer of 2001, the Executive Management Team agreed that the Community Solutions Team program should be a focus of DEQ activities to address the priority for Engaging Oregonians in solving environmental problems.

The November, 2001 report of the CST project identified an increasing number of CST projects between 1999 and 2001 with a general target for more projects in 2002. (although the data may not have been generated consistently from the different regions). This report prompted two questions:

Is there a priority system to determine if some CSTs should gain greater focus?

Is there a way to measure the number of new projects that CST resulted in? (i.e. without CST, are there some programs that would not have happened.

After the November meeting, a team of regional CST staff developed a priority scheme and the data which identified more detail regarding the direction for individual CST efforts.

During the August, 2002 Executive Measures discussion, in addition to a report on the overall participation of DEQ in CST, the CST team reported the total number of CST projects, the priority projects, and those priority projects that have benefited from an initial community meeting. The intent of the prioritization scheme is to provide a greater emphasis on DEQ initiating community meetings to keep those projects moving forward.

Findings from the CST measurement reporting

The prioritization scheme is new. In the future, we will be able to show how the priority setting does or does not lead to a more rapid initiation of community meetings.

We are still unable to determine if certain projects would not have occurred without CST.

COMMUNITY SOLUTIONS TEAM PROJECTS BY DEQ REGION AND TEAM AS OF 9/23/02

NOTATIONS AND DEFINITIONS

ACTIVE PROJECTS:

Column 1: **Q**=DEQ is Project Lead for at least one of the projects listed for this community.
 Column 2: DEQ is a significant player (more than an hour of staff time spent in addition to CST members' time); DEQ Issue: **A**=Air Quality; **L**=Land Quality; **W**= Water Quality.

LONG-TERM, MONITORED, AND COMPLETED PROJECTS:

Each team has a number of projects that they were actively involved in during the planning stages and are now being monitored as they progress or are constructed. The team may become actively involved again in another phase of the project, or if the project hits a snag or can benefit from CST attention. During this time, one or more of the Community Solutions state agencies may be actively involved in the project through their agency programs. Most of these projects include the year that active CST involvement was completed.

DEQ NORTHWEST REGION

Pete Dalke, DEQ CST Regional Rep
503-229-5588

Northwest CST – Pete Dalke, DEQ Member and Team Chair, 503-229-5588

Active Projects:

LW	Astoria – (1) redevelopment (2) regional water supply (3) Lower Columbia channel maintenance
Q W	(4) combined sewer overflows
Q L	(5) new Brownfields projects
Q W	Clatsop County – (1) duck shacks and floating homes
W	(2) rural community planning Coastal communities – economic impact of fisheries closures
W	Gearhart – community planning
W	Hebo – (1) community planning
Q	(2) wastewater issues
L	Lewis and Clark Bicentennial (Clatsop County) – impacts on infrastructure and the economy, including traffic and signage
Q W	Miles Crossing Sanitary District – (1) sewer system
Q	(2) rural community planning
W	Port of Astoria – Skippanon golf course
Q L W	Port of Tillamook – (1) manure to bio-gas digester permitting/composting project
W	(2) Highway 101 bypass transportation planning
W	Port Westward (1) rail improvements
Q	(2) Port of St. Helens permitting (3) road intersection improvements
W	Rainier – (1) senior center and housing complex (river front development) (2) transportation – local street improvements and rail
Q W	(3) wastewater treatment
W	Rockaway Beach – (1) city hall/community center
Q W	(2) sewer expansion
W	Scappoose – (1) rail corridor study

- (2) Urban Growth Boundary expansion
- (3) downtown redevelopment
- (4) transportation – Route 30 and Crown Zellerbach intersection improvements
- W Seaside – Highway 101 couplet project
- W Tillamook County – (1) Tillamook Basin Study
 - (2) transportation planning
 - (3) rural community planning
- LW Tillamook City – (1) flooding on Hwy 101 and impact on businesses
- Q W (2) wastewater treatment (also, unsewered areas)
 - (3) Hoguarten Slough
 - (4) Periodic Review
 - (5) economic development plan
 - (6) transportation
- Q W Vernonia – (1) community learning center
 - (2) wastewater treatment
- W Warrenton – (1) infrastructure for the North Clatsop Business Park
- Q W (2) water and wastewater
 - (3) job retention/ Pacific Coast Seafoods
 - (4) US National Park Service Fort Clatsop access
 - (5) periodic review and wetlands planning
- W Wheeler – (1) mainstreet redevelopment and tourism
 - (2) Botts Marsh

Long-Term, Monitored and Completed Projects (year completed):

- Q L Astoria – (1) clean-up and redevelopment of Mill Pond (2001)
 - (2) Clatsop Community College relocation
 - (3) relocation of downtown Safeway
- W Clatskanie – (1) wastewater issues (2002)
 - (2) river trail completion
 - (3) Wauna Mill expansion (2002)
- W Columbia City – sewer collection and drinking water systems (2002)
- Q W Garibaldi – wastewater treatment improvements (2002)
- Q W Hebo – emergency wastewater facility project (2001)
- W Nestucca Valley School District – school relocation and on-site disposal (2001)
- W Rainier – planning for impact of U.S. Gypsum Plant (2000)
- Q W Regional Water and Wastewater Needs and Compliance Issues Identification
- Rockaway Beach – (1) new school (2001)
 - (2) Urban Growth Boundary expansion
- Seaside – siting assisted living facility (2000)
- Tillamook City – redevelopment of IOOF Building (2002)
- Wheeler – signage and pedestrian access in downtown

Metro/Hood River CST – Sally Puent, DEQ Member, 503-229-5072

Active Projects:

- Banks/ Vernonia – linear trail park completion
- Cascade Locks – issues around undergrounding 16 miles of utilities
- Cornelius – (1) Main Street revitalization
 - (2) infrastructure
- W Damascus/ Pleasant Valley urban reserve planning
- L Estacada – (1) prepare for Periodic Review

- (2) City Hall/Library Project
- Forest Grove – improve downtown area
- Government Camp – (1) community planning
- Q W (2) stormwater work
- Gresham – develop Rockwood area
- L Hillsboro – Town Center Development Plan
- W Hood River – (1) complete unincorporated area plan
- Q W (2) Windmaster Corner failing on-site systems
- Q A (3) Columbia Gorge air quality
- L Metro – (1) Regional Industrial Lands Study
- (2) 2040 Centers and regional place-making
- Q LW Milwaukie – (1) downtown revitalization projects
- (2) redevelop Safeway block
- L North Plains – growth and revitalization
- Portland – (1) housing imbalance
- Q L (2) North Macadam Urban Renewal area redevelopment (brownfields)
- LW Wilsonville – (1) redeveloping Dammasch
- (2) Boeckman Road extension

Long-Term, Monitored and Completed Projects (year completed):

- Damascus – crossing at Gresham Station (2002)
- Forest Grove – repave main street (2002)
- Government Camp – (1) repave main street (2002)
- (2) heated sidewalks (2002)
- Gresham – (1) site semi-conductor plant (2002)
- (2) “distressed area” designation (2002)
- Hood River – farmworker housing (2002)
- Metro – 2040 Town Center Plan (2002)
- Milwaukie – housing analysis (2002)
- North Plains – expansion of Urban Growth Boundary (2001)
- Oregon City – Employment Center Plan (2001)
- L Portland – (1) Martin Luther King Jr. Boulevard redevelopment and streetscaping (19??)
- (2) Interstate-5 Trade Corridor Study (North and Northeast Portland) (2002)
- Timberline – impacts of increased parking at Lodge (2000)

DEQ WESTERN REGION

Mike Wolf, DEQ Regional CST Rep
541-686-7838, ext. 275

Willamette Valley/Mid-Coast CST – Bill Mason, DEQ Member, 541-686-7838, ext. 257

Active Projects:

- W Carlton – leverage ODOT overlay to Main Street into other improvements.
- L Independence – downtown redevelopment
- W Junction City – impacts of proposed prison
- ALW Lane County – 2050 Growth Management Strategy
- Lincoln City – Taft Village redevelopment
- AW Newburg/Dundee – by-pass planning
- Q W Millersburg/Albany – joint water system
- L Salem – expand Agri-Plas agricultural plastics recycling facility
- Q LW Sheridan – industrial park wetlands

- AW Springfield – Downtown revitalization including: (1) cultural district
- A (2) bus rapid transit center
- (3) public space
- (4) housing
- W (5) millrace restoration
- Woodburn – downtown revitalization

Long-Term, Monitored and Completed Projects (year completed):

- Florence – (1) downtown parking
- (2) Highway 101 safety improvements (2001)
- Linn and Benton Counties – Regional Housing/Economic Development Study (2001)
- AW Marion County – urban growth management (2000)
- W Silverton – coordinate State participation in opening of The Oregon Gardens (2000)

Coos-Curry-Douglas CST – Merlyn Hough, DEQ Member and Team Chair, 541-686-7838, ext. 227

Active Projects:

- Bandon – boardwalk improvements
- Brookings – (1) Downtown Center Plan
- (2) Chetco River water rights
- Canyonville – site South County Family Resource Center
- Coastal Communities – economic impact of fisheries closures
- Q W Coos County – (1) in water log storage permits
- (2) land use streamlining
- ALW Douglas County – shovel-ready industrial sites
- Q W Lakeside – wastewater facility needs
- Q W Myrtle Point – bio-gas facility
- L Roseburg – Grand Hotel rehabilitation
- LW Sutherlin – industrial park development (with wetlands)

Long-Term, Monitored and Completed Projects (year completed):

- Brookings – highway couplet (2001)
- Chrissy Field – (1) new State Welcome Center
- (2) highway access
- Q LW Coos Bay – (1) waterfront revitalization including rezoning, and mitigating impacts on Highway 101(2000)
- (2) fund transportation system plan (2001)
- LW (3) waterfront properties assessment and clean-up
- (4) Waterfront Heritage Plan (2000)
- LW Coquille – (1) highway access (2000)
- LW (2) mill site redevelopment (2002)
- (3) improve downtown pedestrian connections (2002)
- (4) downtown revitalization (2002)
- Gold Beach – (1) downtown master plan (2001)
- (2) port redevelopment design (2001)
- Q W (3) wastewater facility (2002)
- LW (4) Enterprise Zone designation (2002)
- Myrtle Point – community center/extension office (2002)
- W North Bend – waterfront redevelopment planning (2000)
- Oakland – historic school renovation (2001)
- Q W Port Orford/Garrison Lake – flooding and ocean wastewater outfall (2002)

- LW Reedsport/Douglas County – Bolon Island Industrial Park Master Plan (2000)
- A Riddle – coordinate zoning and permitting of Roseburg Forest Products plant (2000)
- W Sutherlin – (1) review of wetlands constraints (2001)
- ALW (2) Urban Growth Boundary expansion (2002)

Jackson-Josephine CST – John Becker, DEQ Member, 541-776-6010, ext. 224

Active Projects:

- LW Central Point – (1) new rail crossing
- W (2) restoration of Griffin Creek
- W Gold Hill – Rogue River diversion dam
- W Grants Pass –4th Bridge
- ALW Josephine County – destination resort siting
- ALW Josephine and Jackson Counties – (1) industrial land supply
- Q A (2) regional air quality
- Talent – downtown civic center

Long-Term, Monitored and Completed Projects (year completed):

- ALW Cave Junction – (1) increase industrial land base (2002)
- (2) revitalize main street (2001)
- (3) health clinic relocation (2001)
- ALW Central Point – (1) develop new residential and light industrial close to transit (2002)
- (2) downtown mixed-use building (2002)
- (3) permitting (2002)
- Q L Eagle Point – underground storage tank removal, brownfield cleanup and redevelopment (2001)
- Gold Hill – (1) relocation or restoration of school (2000)
- ALW (2) industrial lands review (2001)
- (3) mainstreet project (2002)
- Grants Pass – (1) Access and street connectivity for industrial park (2001)
- ALW (2) Spaulding Mill site expansion (2002)
- Jackson County – participate in Regional Problem-Solving project (2002)
- Jacksonville – (1) downtown streetscape improvements (19??)
- (2) highway by-pass route (2000)
- Kerby – farmers market (19??)
- AL Medford – (1) facilitate key business expansion (2001)
- Q ALW (2) retain Boise-Cascade lumber mill after fire (19??)
- (3) revitalize downtown (2001)
- W Phoenix – (1) Fern Valley Interchange (2000)
- (2) City Center plan (2001)
- Rogue River – (1) Depot Street rail crossing (2001)
- (2) sidewalk connections to downtown (2001)
- Q A Rogue Valley – (1) air quality (2000)
- (2) business retention (2000)
- L Talent – (1) access across rail line to light industrial park (2001)
- (2) rail depot/transit center (2002)

DEQ EASTERN REGION

Scott Fairley, DEQ Regional CST Rep (Eastern), 541-278-4612
William Knight, DEQ Regional CST Rep (Central), 503-229-5491

Lower John Day CST – Terry Hosaka, DEQ Member, 541-298-7255, ext. 29

Active Projects:

- Condon – (1) redevelop downtown
 - (2) Memorial Hall
- Fossil, Condon, Rufus, Wasco – redevelop old school buildings into eco-industrial facilities
- L Fossil/Sherman County – (1) develop eco-tourism
 - (2) locate geologic/cultural distance learning center in Fossil Elementary School (“Paleo Project”)
 - (3) industrial land development
 - (4) business expansion
- Gilliam County – business development opportunity
- Lower John Day Partnership Project – revitalize the regional economy, including (1) implement Infrastructure Assessment
 - (2) develop regional image
- Maupin – White River Health and Living Center
- Moro – senior center
- Mosier – downtown development
- Rufus – implement downtown development plan
- The Dalles – (1) improve downtown streetscape
 - (2) reconnect downtown to Columbia River

Long-Term, Monitored and Completed Projects (year completed):

- Condon – (1) rehab Bank Block Building for Frontier Learning Network (2000)
 - (2) rehab Condon Hotel
- Lower John Day Partnership – (1) create an Agricultural Council (2000)
 - (2) assess infrastructure needs of sixteen rural communities (2001)
- Moro – (1) Assisted Living Center (2001)
- Q W (2) coordinate Highway 97 repaving with drinking water expansion and sidewalk improvements (2002)
- Q Mosier – redevelop riverfront (2001)
- A Sherman County – coordinate permitting of Wind Farm (2001)
- The Dalles – (1) improve streetscape (2001)
 - (2) rehab of Commodore Hotel (2002)

Central CST – Dick Nichols, DEQ Member, 541-388-6146, ext. 251

Active Projects:

- Crook County – (1) Powell Butte growth issues
 - (2) destination resort opportunities
- LW La Pine – Implement Regional Problem Solving solutions
- Madras – (1) impact of proposed prison
 - (2) “J” Street extension
 - (3) FEMA and flood zone issues
 - (4) industrial land development

- (5) city-wide parking
- (6) Urban Growth Boundary expansion
- Q W Oregon Water Wonderland – sewer upgrade and expansion
- LW Prineville – impacts of growth including (1) wastewater issues
 - (2) redevelop downtown core (brownfield)
 - (3) growth planning
- Redmond – (1) BLM collaborative planning
 - (2) redevelop downtown
 - (3) plan for truck by-pass

Long-Term, Monitored and Completed Projects (year completed):

- L Bend – brownfield clean-up as part of the Highway 20 upgrade (2002)
- Crook County – (1) proposed Speedway complex (2000)
 - (2) tri-county regional landfill (2000)
 - (3) Millican Road (2002)
- La Pine – impact of proposed residential development on Highway 97 (2000)
- L Madras – redevelop brownfield in downtown (2002)
- Prineville – (1) resolve population projection issue (2001)
 - (2) 4th Street extension (2002)
 - (3) affordable housing issues (2001)
- LW Redmond – (1) develop interim Street Standards (2000)
 - (2) new school siting (2001)
 - (3) tallow plant (2001)
- Sisters – community planning (2001)

South Central CST – Peter Brewer, DEQ Member and Team Chair, 541-388-6146, ext. 243

Active Projects:

- Q W Bonanza – water issues
- Chiloquin – (1) strategic planning
- Q L (2) mill site redevelopment
- Klamath County – agricultural development committee
- ALW Klamath Falls – (1) redevelop Modoc Lumber Company site (TimberMill Shore Development)
 - (2) improve air quality
 - (3) increase industrial land supply
- Lakeview – impact of proposed prison
- Q W Merrill – wastewater issues

Long-Term, Monitored and Completed Projects (year completed):

- Highway 140 – Economic Impact Study (2001)
- Klamath Falls – (1) improve air quality (2001)
 - (2) Southview Development (2002)
- W Lakeview – (1) coordinate and leverage the repaving of Highway 395 with sewer and streetscape improvements (2001)
 - (2) affordable housing (2002)

Eastern CST – Scott Fairley, DEQ Member, 541-278-4612

Active Projects:

- W Baker City – (1) Sky Taxi Project
 - (2) Pacific Northwest Training Center
 - (3) Idaho Power Dam re-licensing

- W Boardman – (1) city center plan;
 (2) assess impact of proposed Oregon Motor Speedway;
 (3) site chemical plant;
 (4) community livability issues
- La Grande – (1) downtown redevelopment;
 (2) streetscape improvements
- Milton-Freewater – (1) diversify local economy
 (2) evaluate industrial lands
 (3) business retention/expansion program
- L Nyssa – redevelop brownfield
- Ontario – Urban Growth Boundary expansion issues
- Pendleton – ready industrial lands at airport and improve access
- Pilot Rock – increase affordable housing in downtown
- Q W Reith – wastewater issues
- Wallowa/Union Counties – railroad acquisition
- Weston – (1) redevelop downtown
 (2) housing subdivision

Long-Term, Monitored and Completed Projects (year completed):

- Baker City – National Guard Armory/community facility (2001)
- L Crane – brownfield redevelopment (2001)
- Enterprise – downtown revitalization and streetscape improvements (2001)
- L Harney County – brownfield clean-up in Crane
- Heppner – evaluate economic development opportunity (2001)
- Hermiston – (1) feed lot relocation issues (2000)
 (2) feed lot redevelopment (2001)
- John Day – telework center (2001)
- Jordon Valley – airport development (2001)
- Joseph – (1) Manuel Museum expansion (2001)
 (2) site tire manufacturing facility at airport (2001)
- L Long Creek – brownfield cleanup (2001)
- Malheur County – coordinate permits for diasource mining operation
- Nyssa – (1) assist with finding a site for beef processing plant (2000)
 (2) cleanup brownfield (2001)
- Ontario/Malheur County – site and issue permits for ore refining facility at industrial park
- Pendleton – (1) retain business in downtown (2000)
 (2) increase affordable housing in downtown (2000)
- Pilot Rock – redevelop wood product manufacturing site (2001)
- Stanfield – assess impacts of new development (2001)
- Vale – (1) site a beef processing facility
 (2) evaluate industrial site and impacts of proposed new business (2001)
- Weston – redevelop downtown

DEQ HIGH PRIORITY COMMUNITIES BY REGION AND COMMUNITY SOLUTIONS TEAM

Notes:

- C:** Community has met with the Regional Community Solutions Team on the DEQ issue(s).
Y: Yes, the community is working with the Regional Community Solutions Team on this issue.
N: No, the community is not working with the Regional Community Solutions Team on this issue. DEQ or the Regional Community Solutions Team has decided that this issue is not appropriate for resolution through Community Solutions.
E: Environmental Partnerships for Oregon Communities (EPOC) is also working with this community on this issue.

See the end of the report for the criteria used by each Region to select Priority Communities.

DEQ NORTHWEST REGION

Pete Dalke, DEQ Regional CST Rep

Northwest CST – Pete Dalke, DEQ Member and Team Chair

- CY Clatsop County floating homes and duck shacks
CYE Garibaldi – wastewater issues
CY Port Westward – City of Clatskanie; Port of St. Helens
CYE Rainier – wastewater compliance issues and system improvements
CYE Rockaway Beach – wastewater issues
CY Tillamook City – wastewater treatment, including unsewered areas
CY Warrenton/Astoria including Miles Crossing/Jeffers Gardens – area-wide water and wastewater issues
CYE Vernonia – wastewater issues

Metro/Hood River CST – Sally Puent, DEQ Member

- N Columbia Slough
Y Johnson Creek and Damascus Area
CY Estacada
Y Interstate-5 Corridor Neighborhood (North/Northeast Portland)
CY North Macadam Redevelopment

DEQ WESTERN REGION

Mike Wolf, DEQ Regional CST Rep

Willamette Valley/Mid-Coast CST – Bill Mason, DEQ Member

- E Amity – Treatment plant cannot adequately treat the wastewater. EPOC project with an MAO.
Brownsville – Inflow and infiltration improvements needed; winter irrigation needed. Currently under an MAO.
Cottage Grove – Treatment plant cannot consistently meet permit limits. Currently under an MAO.
Creswell – Land irrigation system and area needs major upgrade/expansion. Currently under a MAO.

- Eugene – Lane Community College – Inadequate wastewater system.
- E Falls City – Inflow and Infiltration improvements needed. EPOC project with a MAO.
- Lafayette – Inadequate wastewater system.
- E Monroe – Inflow and Infiltration improvements needed. EPOC project with a MAO.
- Rice Hill – Current privately owned lagoon systems may be inadequate and receiving stream may not have adequate capacity.
- YE Westfir – Inadequate wastewater system. EPOC project With a MAO.

Coos-Curry-Douglas CST – Merlyn Hough, DEQ Member and Team Chair

- Coquille – Inadequate wastewater system.
- Drain – Inadequate wastewater system. Under a MAO.
- E Glendale – Wastewater system has exceeded capacity. Under a MAO.
- Gold Beach – Inflow and Infiltration improvements needed.
- CY Lakeside – Inadequate treatment plant capacity and inadequate receiving stream flows for dilution and mixing.
- CY Myrtle Point – Inadequate wastewater system.
- Port Orford – Treated wastewater is currently being discharged on public beach. Under a MAO.
- E Powers – Collection system and treatment plant need replacement. EPOC project with a MAO.
- C Reedsport – Treatment plant cannot adequately treat or disinfect the wastewater and receiving stream has high summertime recreational use downstream.
- Wedderburn/Knoxtown – Inflow and Infiltration improvements needed.
- Winchester Bay/Florence – treatment plant cannot adequately treat or disinfect the wastewater and receiving stream has high summertime recreational use.

Jackson-Josephine CST – John Becker, DEQ Member

- Ashland – Major Modification permit action is needed to allow summer discharges, completion of the upgrades to their treatment plant and a TMP submittal to meet MAO compliance schedule.
- Merlin – Fleming Middle School – Inadequately treated or disinfected effluent being land irrigated on playgrounds.
- Merlin – North Valley High School – Inadequately treated or disinfected effluent being land irrigated on playgrounds.
- Shady Cove – Treatment plant cannot consistently meet permit limits. Under a MAO.

DEQ EASTERN REGION

Scott Fairley and William Knight, DEQ Regional CST Reps

Lower John Day CST – Terry Hosaka, DEQ Member

- CY Fossil – brownfield redevelopment (“Paleo Project”)
- E Moro – wastewater and drinking water improvements
- E Mosier – wastewater and drinking water improvements
- E Paisley – wastewater and drinking water improvements
- E Rufus – wastewater and drinking water improvements
- E Wasco – wastewater and drinking water improvements

Central CST – Dick Nichols, DEQ Member

- CY La Pine – LaPine demonstration project; special sewer district

CYE Oregon Water Wonderland – wastewater improvement

South Central CST – Peter Brewer, DEQ Member and Team Chair

- CY Bonanza – contaminated shallow wells and groundwater from Lost River during dry years
- CY Chiloquin – TMDL implementation; Chiloquin mill site brownfield
- CY Klamath Falls – TMDL implementation; cleanup program brownfield outreach; landfill closure and transfer station siting; air quality attainment plan; mill site redevelopment
- CY Lakeview – brownfield outreach; air quality non-attainment area
- E Merrill – wastewater and drinking water improvements

Eastern CST – Scott Fairley, DEQ Member

- La Grande – air quality non-attainment; adopted TMDL; pending landfill closure
- E Nyssa – wastewater and drinking water improvements
- CY Rieth – failing on-site systems; community investigating feasibility of connection to Pendleton sewer system
- E Vale – wastewater and drinking water improvements

SELECTION CRITERIA

Eastern Region:

- Criteria 1: Communities where DEQ staff and/or resources are being directed toward solving environmental problems or opportunities (including communities where CST's have projects and DEQ has or shares the lead and communities participating in EPOC).
 - Criteria 2: Communities with cross-media opportunities or problems OR one overwhelming opportunity or problem; AND lacking economic and/or community capacity to address environmental opportunities or problems.
- Communities must meet one of the above criteria to be on the "high priority" list.

Northwest Region:

- Criteria 1: Communities where DEQ technical assistance staff and/or other resources are available and have been directed toward addressing an opportunity/problem in a more focused effort. This includes Regional CST priority communities where DEQ has or share the lead, and EPOC communities. Other "high priority" communities may include those undertaking Drinking Water Protection Planning or implementing Water Quality Management Plans that require multi-agency coordination for their success.
 - Criteria 2: Communities with known cross-media opportunities/problems OR one overwhelming opportunity/problem; AND lacking economic/community capacity to address the opportunities/problems.
- Communities have to meet either criteria 1 or 2 to be on the "high priority" community list.

Western Region:

Western Region's high priority communities list is currently the list of communities prioritized on the basis of wastewater problems.

Priority 2: Protect Oregon's Water

Key Action: Implement a comprehensive watershed approach

Measures Team: Mike (DA Lead), Neil, Joni, Mary, and Greg Pettit

Executive Measures:

1. Statewide Measure. This measure provides information on the status of water quality for the state using tools such as the water quality index and reports on permit backlog reduction and TMDL schedule development.
2. Basin Measure. This measure integrates water quality data, TMDLs, permitting, and groundwater protection to provide a holistic approach to water quality management for a particular watershed.

Status of Measures Development: In November 2001, the EMT identified a few follow-up actions and provided feedback that has been incorporated into a revised presentation of the executive measures. This report will present

1. Information to resolve questions raised in November related to the water quality index (Speaker Greg Pettit)
2. A comprehensive report on water quality and related issues for the Grande Ronde basin (Speaker: Mitch Wogamatt and Joni Hammond)
3. Updated information on statewide water quality management issues (Speaker: Mike Llewelyn)

1. Information on OWQI (relates to the statewide measure)

Three questions will be discussed that relate to the OWQI:

- What is the Oregon Water Quality Index (OWQI)?
- What portion of the States rivers does it represent?
- What is the relationship between the Index and Standards?

What is the OWQI? What Parameters does it include?

The following characteristics define the OWQI:

- Single number integrating eight parameters. These eight parameters are reported as OWQI Sub-indexes and include:
 - Temperature
 - Dissolved Oxygen (concentration and percent saturation)
 - Biochemical Oxygen Demand
 - Ammonia + Nitrate Nitrogen
 - Total phosphates
 - pH

- Total Solids (varies by basin)
- Fecal Coliform
- Utilizes data generated from routine ambient water quality monitoring
- Provides temporal and spatial trends
- Provides a benchmark to measure results of water quality programs
- Improves communication of water quality issues with the general public

The OWQI, like any measurement tool, has some inherent limitations.

- General water quality vs. specific use impairment
- Not a public health hazard assessment
- Conventional pollutants vs. complete stream quality analysis (i.e. chemical, physical, and biological assessment)
- Currently only based on ambient data

What portion of the State's rivers does it represent?

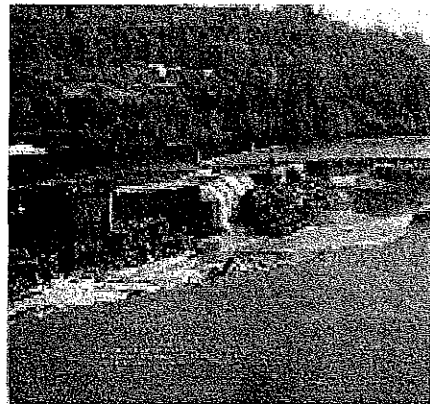
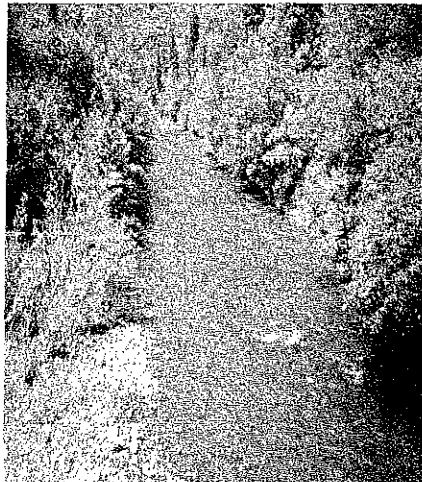
Typically the data used is from the ambient river monitoring network. The ambient river monitoring network includes 151 sites on the larger streams and rivers of the state. There is approximately one site for every 50 miles of fourth order and larger streams. Sites were chosen to reflect integrated water quality impacts.

Examples of Stream Orders

1st Order

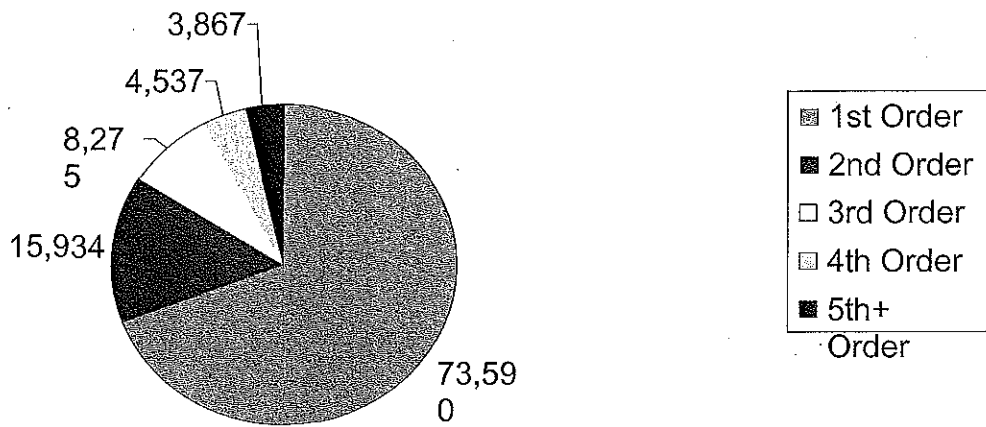


3rd Order



5th Order

Oregon Stream Miles by Stream Order



(Missing GIS WQI Map)

What is the relationship between the Index and Standards?

In many ways the OWQI reflects beneficial use support in a general sense, better than comparisons with individual standards. The OWQI sub-index scores compare well with the standards. Different beneficial uses have different standards established for a given parameter. For a given parameter, the OWQI sub-index would give a higher score where all beneficial uses are supported than where some or none are supported. The OWQI sub-index scores reflect the magnitude of deviation from the standard, which also provides a better indication of beneficial use support. And finally, the overall OWQI score integrates the affects of multiple stressors.

OWQI Temperature Subindex

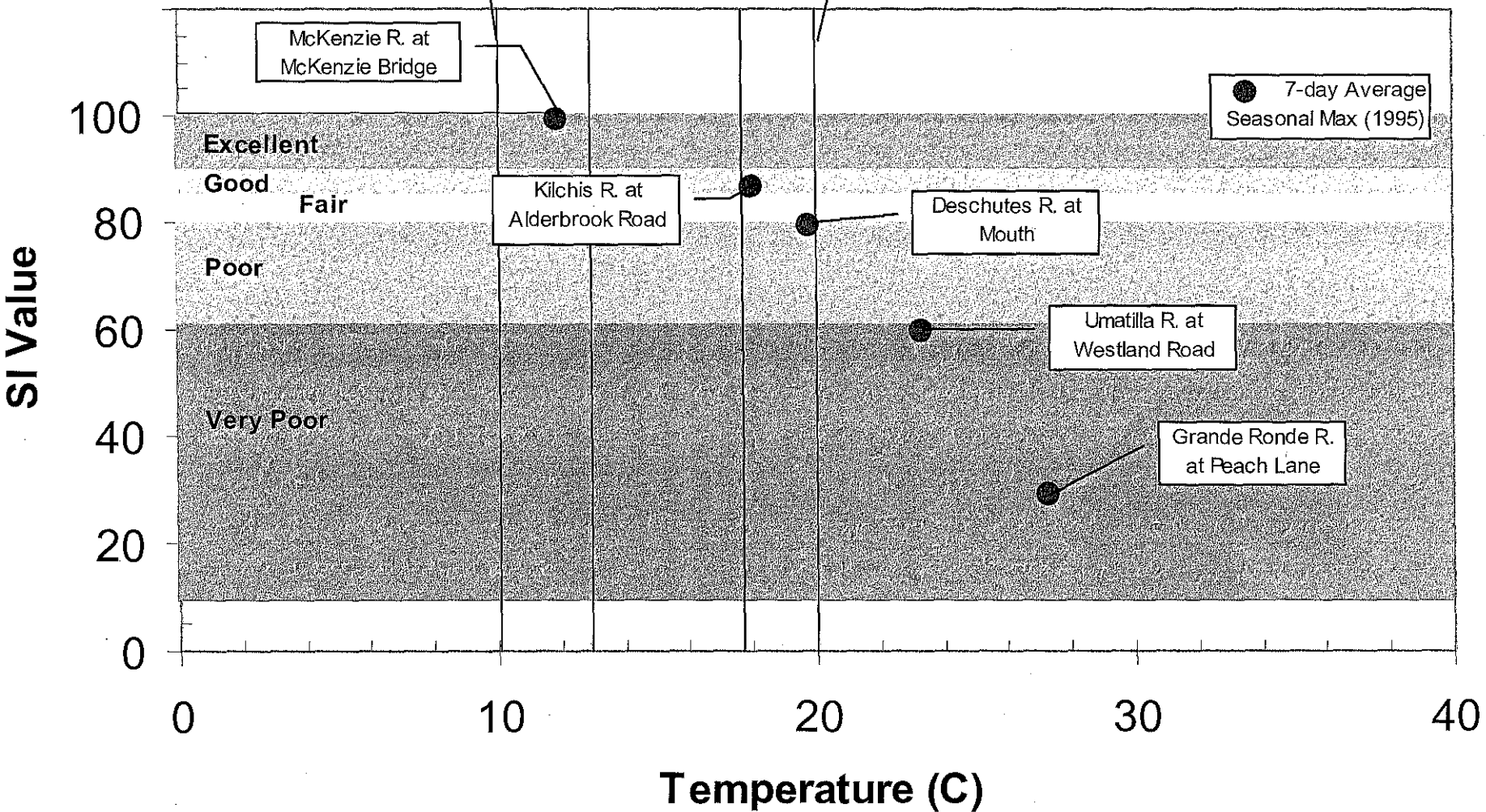
Standards

Bull Trout
(10 C)

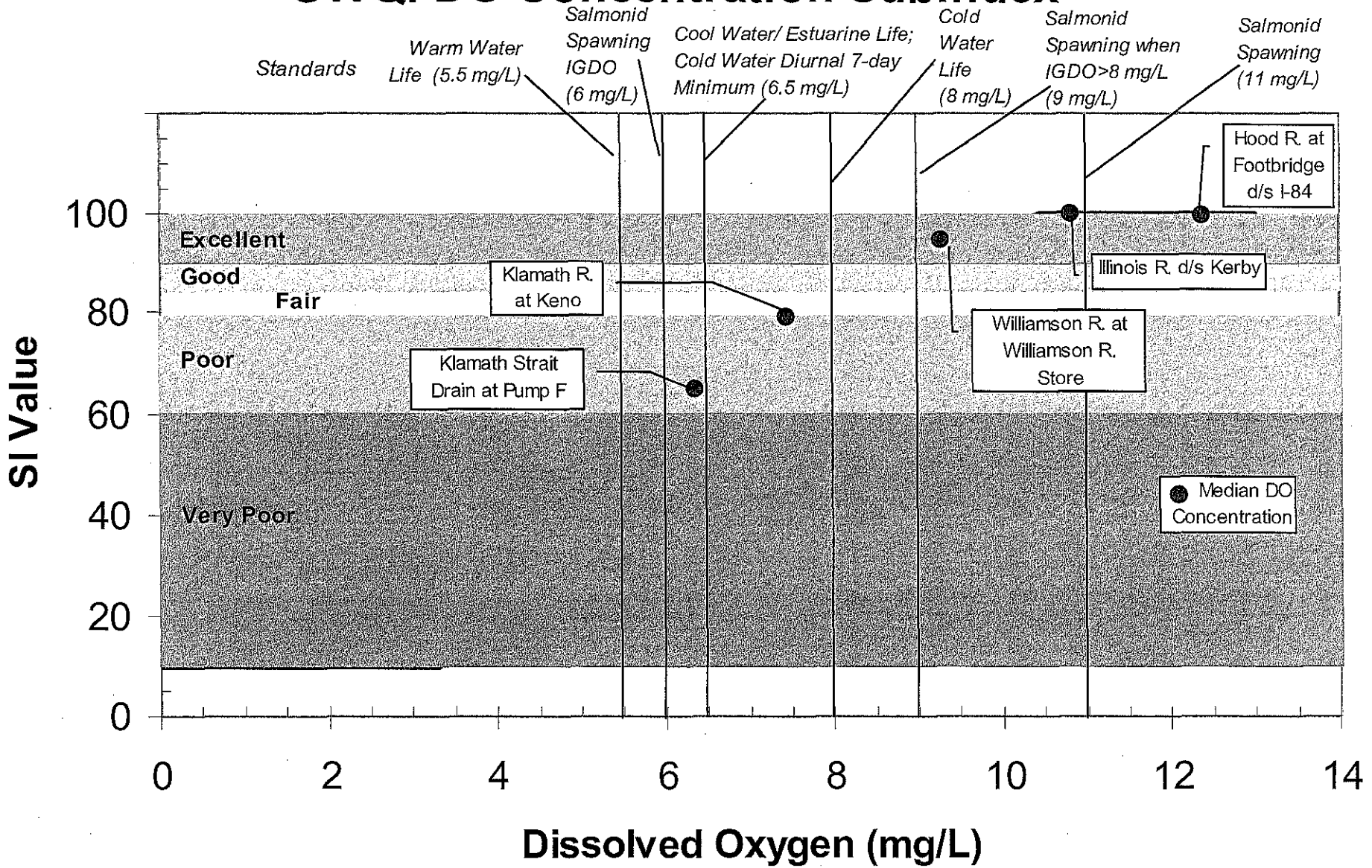
Salmonid
Spawning
(12.8 C)

Salmonid
Rearing
(17.8 C)

Lower Columbia &
Lower Willamette
(20 C)



OWQI DO Concentration Subindex



2. Report on the Grande Ronde (Basin Measure)

(Missing Grande Ronde Basin WQI Map)

There are five ambient monitoring sites in the basin:

- Minam River near it's confluence with the Willowa. The OWQI is "excellent" for all parameters including temperature, which is odd because the lower end does exceed standard and is on the 303(d) list for temperature – will come back to that.
- Willowa river near confluence with Minam. The OWQI is "fair", but just barely.
- Main Stem GRR water quality decrease from u/s site at Hillgard. The OWQI is "good".
- Peach Lane, middle of agriculture land below La Grande. The OWQI is "fair", but not by much
- Elgin, at the bottom of the Grande Ronde Valley u/s canyon. The OWQI is "fair", but lower than Peach

The following table provides a summary of the OWQI Sub-Index values for the Grande Ronde.

OWQI Sub-Index Summary for the Grande Ronde

Site	Subindex	Summer Average	Category
Grande Ronde River @ Hillgard	Temperature	86.9	G
	Dissolved Oxygen	86.5	G
	BOD	83.0	F
	pH	81.0	F
	Total Solids	100.0	E
	Ammonia + Nitrate N	98.0	E
	Total Phosphorus	88.0	G
	Bacteria	94.7	E
	OWQI	86.8	GOOD
Grande Ronde River @ Peach Lane	Temperature	88.6	G
	Dissolved Oxygen	82.0	F
	BOD	73.3	P
	pH	81.5	F
	Total Solids	99.9	E
	Ammonia + Nitrate N	96.6	E
	Total Phosphorus	81.9	F
	Bacteria	87.7	G
	OWQI	82.2	FAIR
Grande Ronde River @ Elgin	Temperature	85.6	G
	Dissolved Oxygen	87.0	G
	BOD	68.4	P
	pH	89.2	G
	Total Solids	98.4	E
	Ammonia + Nitrate N	95.8	E
	Total Phosphorus	69.9	P
	Bacteria	92.6	E
	OWQI	81.0	FAIR

From this table you can see is that

- Temperature is good at all three sites, even in the summer time
- D.O. is Good, Fair, Good
- pH is Fair, Fair, and good at the most down stream site

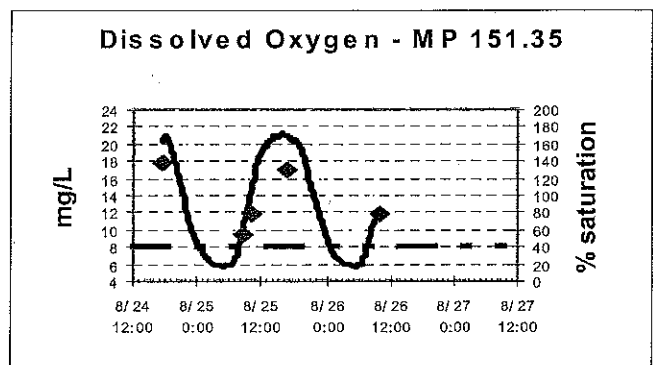
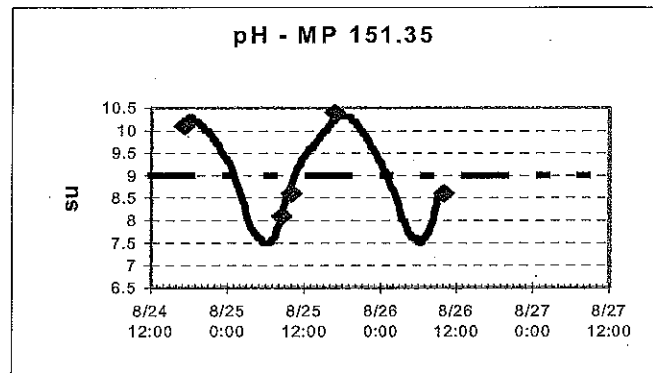
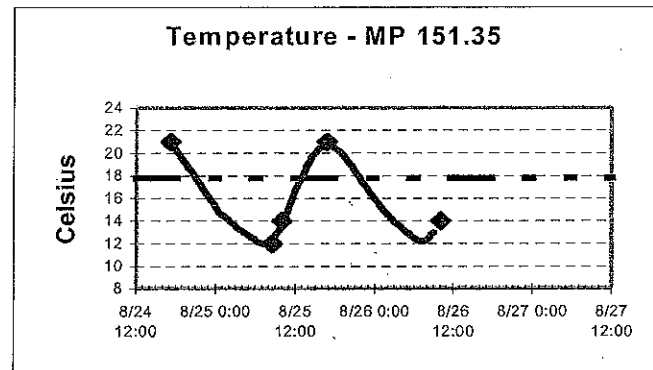
This seems contradictory given that we just spent a great deal of energy doing TMDLs because of temperature, dissolved oxygen and pH problems, but there is an explanation. Things are really not that good in the UGG esp. in the valley.

So why does the index come out looking that way?

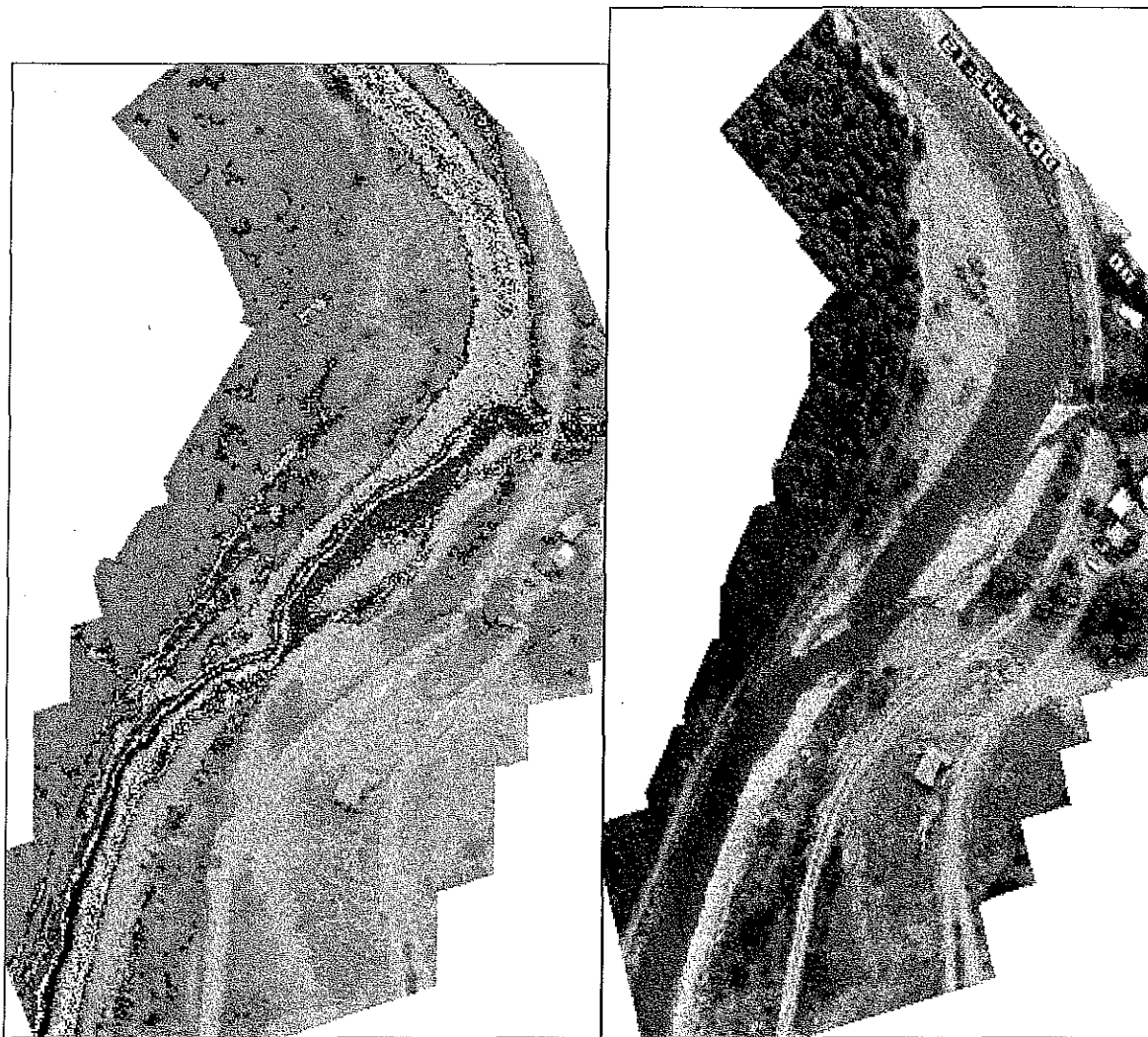
If you look at the diurnal fluctuation for temperature, pH, and dissolved oxygen at Peach Lane on the Grande Ronde, you will see that all three of these parameters fluctuate greatly over a 24 hr daily cycle. They tend to be a minimum in the morning and at a maximum late in the daylight hours. The worse the pollution problem, the greater that fluctuation becomes.

The logistics of our ambient monitoring network results in these sites essentially always being sampled in the morning. So for temperature and pH, in particular, we tend to get samples at the best time of the day. By late in the day things can be dramatically different, and can be very poor at same location.

This diurnal fluctuation data can only be collected with continuous data loggers capable of recording data 24 hours a day. That's not practical to do every where. The routine ambient sampling that is used for WQI collects a grab sample at one point in time.

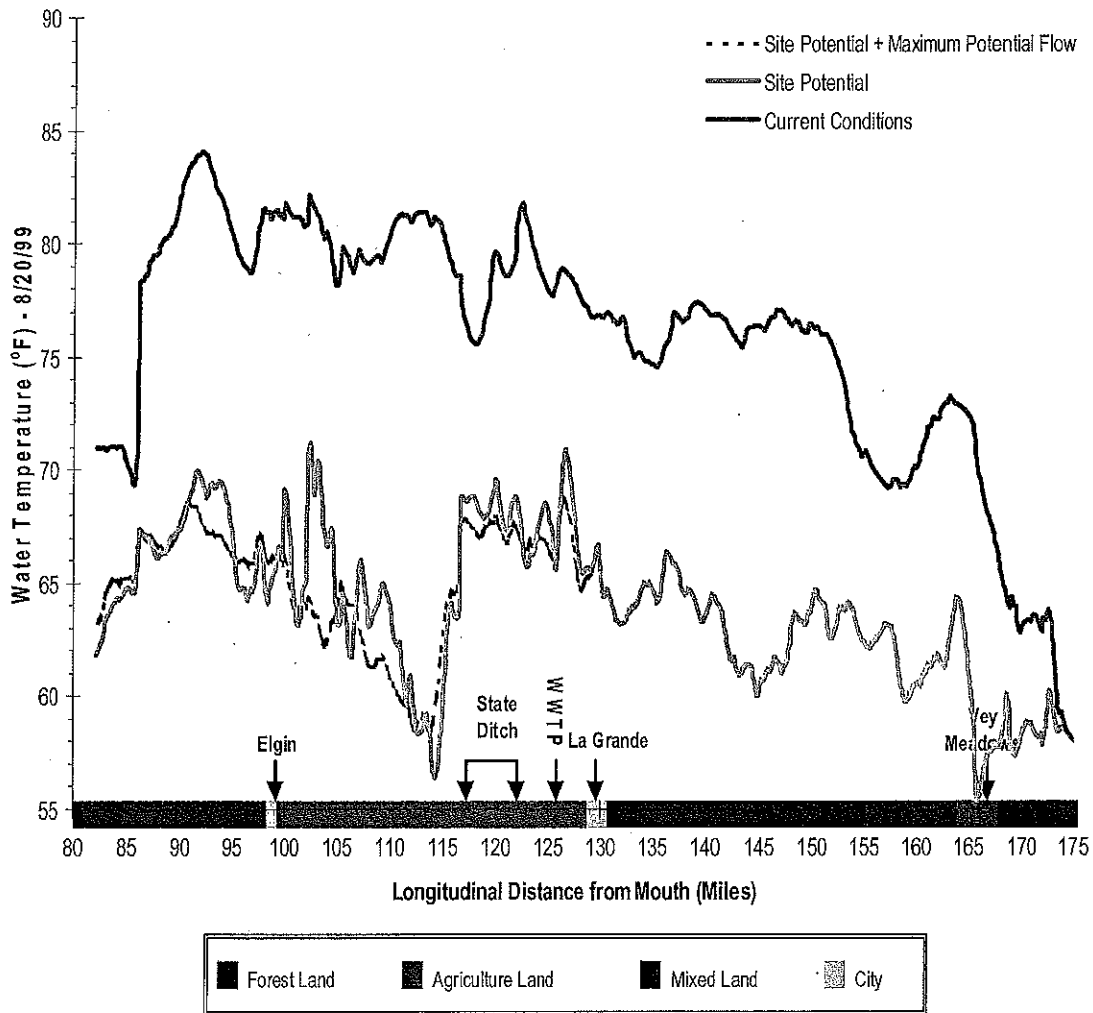


Another way to get temperature data is with Forward Looking Infrared Radiometry (FLIR). Looking at the image below, the FLIR image is on left, a regular video image is on right. The Grande Ronde River is flowing from top to bottom (pink). Lookingglass Creek is entering the river from the right side (blue). The pink color indicates that the river is approximately 79 degrees, and that Lookingglass Creek is about 64 degrees. As the water mixes, you can see that the whole river is cooled off down stream.

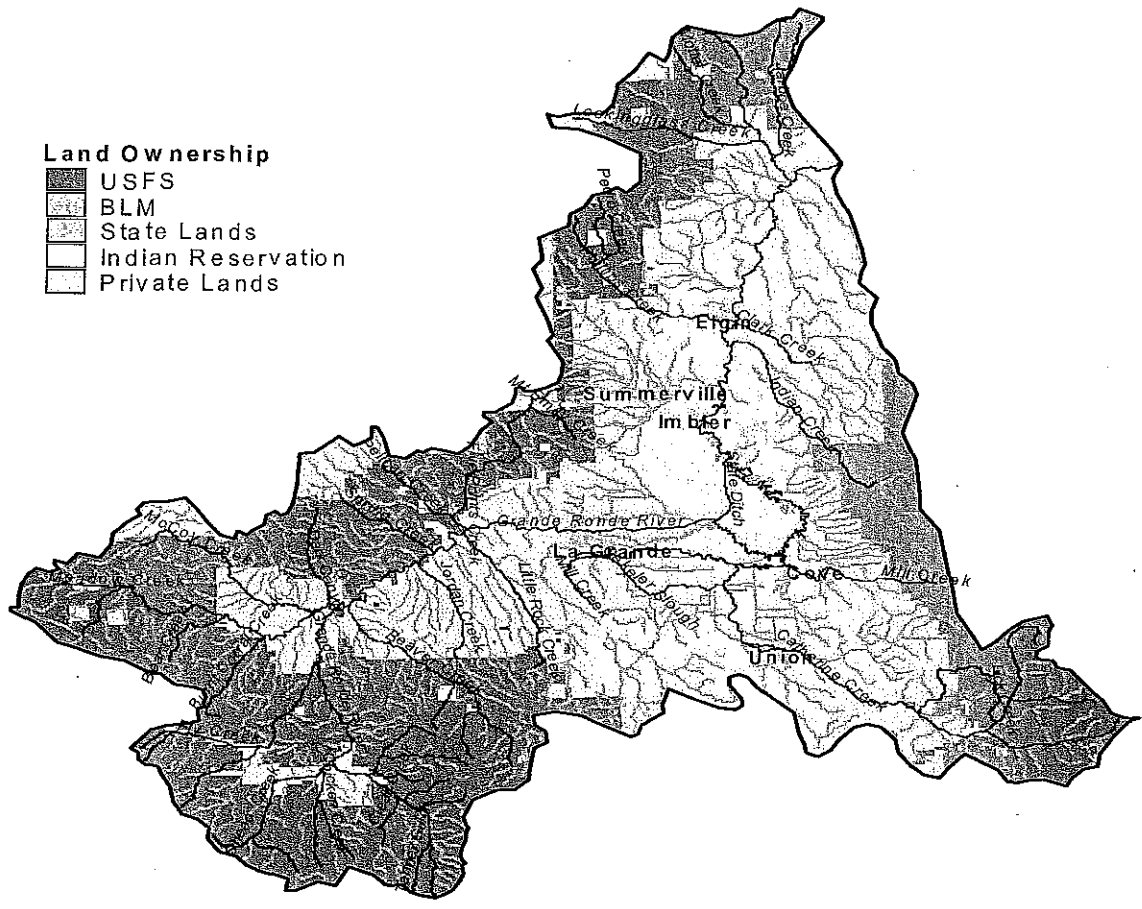


With the FLIR data we can create a longitudinal profile of the length of river. The following graph outlines this profile, the red line is actual measured river temperature generated from FLIR image and the blue line is a computer-simulated temperature that would result if conditions improved. Following the red line you see it starts out cool at headwaters on right side (RM 175). Temperature increases rapidly as you move downstream, past La Grande, through agriculture land, to reach a maximum of about 84 degrees just before enter the canyon below Elgin. The water begins cooling in the canyon, probably as result of topographic shade. The water temperature drops dramatically when Lookingglass creek enters. The blue line demonstrates that warming will still occurs, but at much slower rate. The result is dramatically lower water temperature throughout most of river length. This blue line essentially becomes the target for the temperature TMDL in upper Grande Ronde.

Grande Ronde Temperatures at Current Conditions and Site Potential



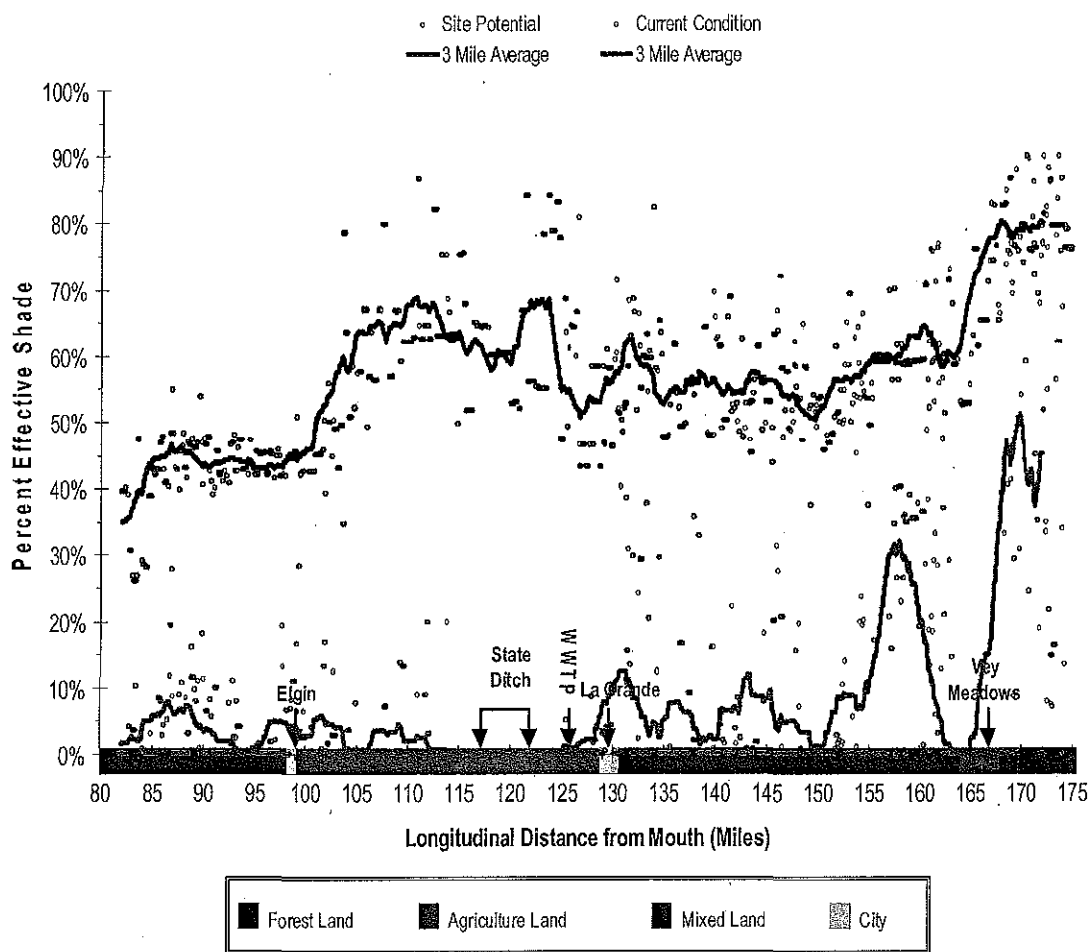
In the basin there is roughly a 50/50 split between public & private land ownership. Private land tends to be lower elevation along major streams (where the water is), and public land tends to be higher elevation around the edges of the sub-basin. Major population centers include: La Grande (biggest), Union, Elgin, Cove, Imbler, and Summerville. There is intensive crop agriculture in the valley, while most lands near La Grande are forested. Much of the forested land is also grazed. There are also range lands, which are areas that were either originally meadows or were mechanically cleared and are now pastures.



In the basin on three point sources discharge to river: The La Grande WWTP enters the river just below La Grande, Boise Cascade (a very small WWTP discharge), and Union WWTP enters Catherine Creek at Union.

Analysis indicates that there is no load capacity available for temperature, so the load allocation available to pollution sources is zero. This isn't very useful to a land manager trying to figure out what to do, so we've provided surrogate measures, the main one being shade.

Percentage Effective Shade Surrogate Measures



The red dots above measure existing shade at various sites, and the red line is the 3-mile running average of the measured shade. The blue dots are calculated potential shade at various sites, and the blue line is 3-mile running average of the calculated site potential. The blue line is the target you are attempting to achieve, so if you had land on the river at Elgin, you would attempt to achieve about 40% effective shade. Please note that, while the red and blue lines are quite a bit different, the dots actually overlap, especially above La Grande. Even on the lower end, there are red dots almost as high as the blue. This means that even down in agriculture land there is isolated remnant vegetation that is pretty good. The estimate site potential is not perfect, but it's probably not too far off and will be refined over time. We could use changes in the measured shade or even vegetation height to track progress.

The following photo exemplifies a typical river bank condition. You can see that there is virtually no tall woody vegetation capable of producing shade, and there is extremely low flow in late summer (this is September). The channel is very wide and shallow with sloughing banks.



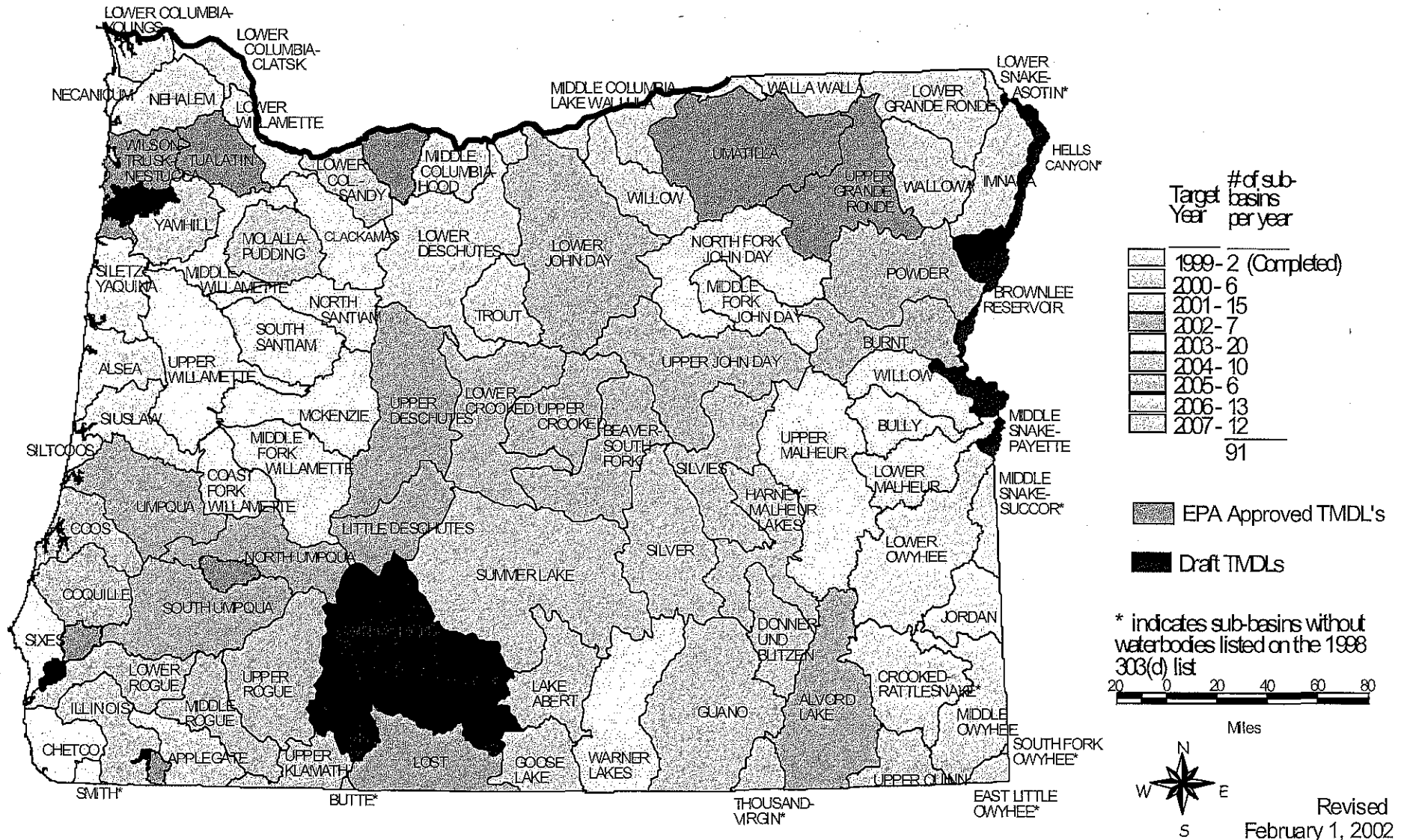
Here's some summary information on the status and progress on the TMDL for the Grande Ronde basin.

- The TMDL was approved by EPA in May 2000
- Listed parameters are temperature, dissolved oxygen, pH, bacteria, sediment
- The status of NPDES & WPCF permits is that there are 12 total in Sub-basin. Three are dischargers only, and all are up to date. Of the remaining nine, six are up to date and three are in process
- Total point source costs to date are ~\$20 million
- Nonpoint source costs are organized into the following categories:
 - Transportation -- implement BMPs using existing resources and grants
 - Municipal -- implement BMPs using existing resources and grants
 - Forestry -- continue to implement FPA, no new cost
 - Agriculture -- implement SB 1010, unknown cost
- Monitoring costs about \$300,000 annually

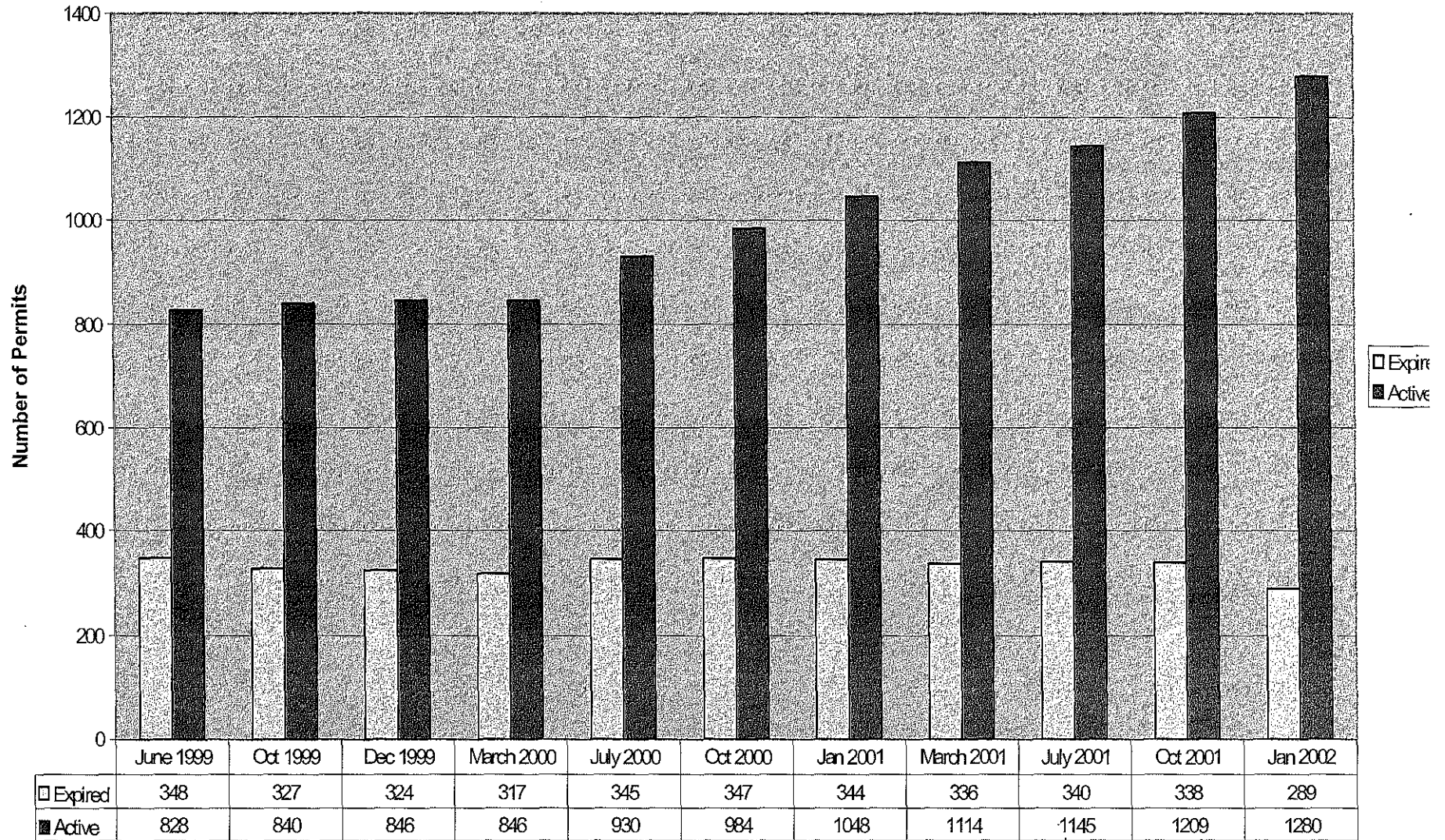
3. Report on Statewide Measures

The statewide presentation will focus on the status of TMDL implementation and permit issuance. The following graph outlines the revised plan for implementation of TMDLs. When our current status is compared to the consent degree, we are slightly ahead of schedule, but when status is tracked as a basin you'll see that we are lagging slightly behind schedule. It's important that you understand this tracking distinction, and that the WQ program is satisfied with our progress to date.

Sub-Basin Target Dates for Completion of TMDL's for Waters Listed in the 1998 303(d) List



Total Individual Permit Backlog



The second graphic summarizes the status of the permit backlog. When you look at this graph, it doesn't appear that we are making any substantial progress. We do have a vulnerability here related the NPDES major permits. EPA has begun a program audit and is particularly interested in this class of permits.

Reporting Process and Frequency:

The Statewide report will be provided in detail on an annual basis with updates on policy issues as need during each evaluation. A sub-basin report for a different basin will be provided during each measures evaluation. The selection of a sub-basin will alternate between RDAs unless emerging issues justify a report on a particular basin.

Key Action: Develop a strategy to ensure broader reuse of wastewater

Team: Mike (DA lead)

Executive Measures:

The measure being developed for this action will provide an indication of the changes (increases) in water reclamation over time. The WQ program does not currently have information readily available to report on this measure. An internal workgroup is being formed to outline the plan for developing this action. They will also determine the best method for reporting a baseline value, and a process for more readily capturing the data need to report on this measure.

Reporting Process and Frequency: To be determined.

Targets Development

The Process

On September 10th the EMT began developing draft targets for the Strategic Direction's Key Actions and Executive Measures. Targets specify DEQ's desired results by 2012; although, some are intermittent targets (progressive sub-targets that take the agency to a final end point) or shorter range targets (end points sooner than 2012.) The purpose for developing targets is to give a longer-range view to planning, to provide a clear message on the expected outcomes from the agency Strategic Directions, and to inform on the level of effort we are investing in our key actions. The EMT completed draft targets for the first two priorities on September 10th, and will continue developing Priorities 3 and 4 on September 24th.

How We Get From Draft to Actual Targets

The draft targets will be further developed and evaluated by sub-groups (in some cases) and the PMTs. The EMT sometimes asks for specific input from sub-groups or the PMTs, however, in general, the EMT would like the following feedback:

- Ground-truth the draft targets,
- Offer comments on the feasibility of the targets,
- Pick preferred targets (not all the brainstormed ideas will necessarily remain as final selected targets); and, in some cases,
- Propose new targets

In addition, to ultimately complete the "Questions for PMTs" distributed at the August 2002 QMC, PMTs will need to:

- Identify additional work in program plans in order to accomplish targets
- Identify what might need to come off the plate to achieve the targets, and
- Supply data on baselines

On October 22nd, the EMT will review and discuss the input provided from the sub-groups and PMTs. This process may take more than one meeting. Time is also being reserved on the November QMC agenda for targets development, if necessary.

The EMT hopes to have an initial set of targets selected by the end of the year. Targets will be evaluated periodically, probably either annually or biennially. Once targets are finalized, new executive measures may be added to support the reporting process. Future targets development will coincide with biennium reviews of the Strategic Directions.

What follows is the work accomplished by the EMT on September 10th. Notes in *italic* represent specific requests or guidance from the EMT.

Draft Targets for Priority 1: Excellence

Key Action: Make it easier to do business with DEQ.	
Potential Targets	Executive Measures
<p>The EMT is interested in targeting customer satisfaction, process improvement & customer accessibility to what they want/need. <i>PMTs can offer target suggestions.</i></p> <ul style="list-style-type: none"> • 80% of customers surveyed rate DEQ's service as good or excellent by 2004 (90% by 2006). • ___% of forms that could be available on-line are put on-line (100% by 2012). <i>Corralling Subgroup (Holly, Helen, Dawn & Mikell) to identify baseline, definitions and determine intermittent targets.</i> • 100% of identified key processes have status tracking on-line by ___ (before 2012.) <i>PMT's provide input on which key processes, and timeline for implementation.</i> • 100% of new or identified process improvements are completed. <i>EMT likes the concept, needs wordsmithing.</i> <p><u>On Hold</u>: # or % of information requests responded to from a central service (interested in both responsiveness and ease, central might include Info Center, OD, Nina, Regions) <i>EMT will discuss after IMAP discussion.</i></p>	<p>Results from customer service survey</p>
Key Action: Reinforce effective management.	
Potential Targets	Executive Measures
<p><i>PMT may react to these measures; although, target owners are the MSD Managers.</i></p> <ul style="list-style-type: none"> • 95% of performance appraisals are completed on time by 2005. <i>Adjust later for new performance appraisal system.</i> • 95% of employees have up-to-date workplans by 2005. • 95% of subprograms are within 10% variance between actual expenditures and operating budget forecasts. • 100% of managers attend one growth opportunity (training) per biennium. • 50% of managers' time is spent managing. <i>Need to define "managing."</i> • 100% of concerns "identified" from surveys (which specific surveys) are addressed. ___% of concerns addressed showed improving trends next survey. <i>Corralling Subgroup to further develop the concept.</i> <p><u>On Hold</u> ___% of surveyed employees are satisfied working at DEQ. <i>EMT to evaluate employee survey targets after results presentation.</i></p>	<ul style="list-style-type: none"> • Completed performance appraisals • Completed work plans • Turnover • Operating budget review • Results from employee survey

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Key Action: Emphasize cross-program environmental problem solving.	
Draft Targets	Executive Measures
<p><i>A subgroup that includes Keith Andersen, Keith Johnson, Lissa Druback, Sally Puente, and Dick Pederson are asked to develop some proposed target that identifies where cross-program should occur and what actions will occur. Some actions that are already occurring include: rule review, sediments, place based environmental benefits, and toxics.</i></p> <p><i>Be sure to consider Enforcement, MSD, and the Lab.</i></p> <p><i>Also consider target from Water:</i></p> <ul style="list-style-type: none"> • 100% of target watershed will have a scoping document by second year of cycle (achievable by 2012.) 	<ul style="list-style-type: none"> • Cross-program work plans completed
Key Action: Ensure understandable and equitable compliance and enforcement.	
Potential Targets	Executive Measures
<p><i>A subgroup of the RDA's and Anne will define these targets for the existing key action; however, the key action may need reworking.</i></p> <ul style="list-style-type: none"> • ___ lbs. of pollutant reduced as a result of enforcement, TA, & compliance actions (check this against all environmental media) • ___ % of enforcement, TA, & compliance actions result in a high level of environmental benefit (P2) • ___ % of regulated universe ranks compliance and enforcement as understandable and equitable (from survey; split compliance from enforcement?) • ___ % facilities returned to compliance within ___ # of days. (when does clock start) • ___ % of compliance and enforcement actions meeting timeline expectations. • ___ % of programs conducting biennial guidance review. <p>Note: What's a good a division 12 related target?</p>	<ul style="list-style-type: none"> • Progress on Div. 12 rulemaking • Excellence in enforcement (Being developed)

Draft Targets for Priority 2: Water

Key Action: Implement a comprehensive watershed approach.	
Draft Targets	Executive Measures
<p><i>WQ PMT should provide input on all the Water draft targets.</i></p> <ul style="list-style-type: none"> • 80% of planned permits to be issued in a year are in a targeted watershed (by 2012) • 95% of all planned permits to be issued in a year are issued annually (by 2012, resolve timing issue) • 100% of target watershed will have a scoping document by 	<ul style="list-style-type: none"> • Statewide measure (OWQI, TMDL development status, permit backlog status) • Basin reports

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<p>second year of cycle (achievable by 2012.)</p> <ul style="list-style-type: none"> • 100% of targeted watershed will have an implementation plan by 2 years after TMDL approval (by 2012). • Develop a simple target for “clean water” (___ % of listed waterbodies meet WQ standards by 2012) [<i>WQ PMT should propose something here.</i>] • 100 % of TMDLs are completed on time and/or with consent order. <p><i>Have some enforcement and compliance targets. Consider:</i></p> <ul style="list-style-type: none"> • Complete 100% compliance inspections within watershed cycle. • lbs. of pollutant reduced as a result of enforcement, TA, & compliance actions (check this against all environmental media) • ___ % of enforcement, TA, & compliance actions result in a high level of environmental benefit (P2) <p><i>Have cross-program links. Consider:</i></p> <ul style="list-style-type: none"> • ___ % of targeted watershed that are receiving formalized cross-program TA. (better to do by watershed, or pollutant, or industry sector?) 	
Key Action: Develop a strategy to encourage broader reuse of wastewater.	
Draft Targets	Executive Measures
<p><i>WQ Sub-group working on this issue should provide input on all the Water draft targets.</i></p> <ul style="list-style-type: none"> • 5% by 2004, and 20% by 2012 of wastewater in Oregon reclaimed. • ___ % of facilities are reclaiming water. <p><i>Sub-group should define “reclaimed water.”</i></p>	<p>Percent of wastewater reclaimed</p>

The draft targets for Priorities 3 and 4 have not been discussed by the EMT, so what follows are just examples. PMTs or Sub-groups can begin to do some advance work on Priorities 3 & 4 in preparation for the EMT discussion on 9/24, or can plan for a discussion after the 9/24 EMT meeting.

Discussion Targets for Priority 3: Toxics

Key Action: Prepare for and minimize the danger posed by the catastrophic release of dangerous chemicals.	
Draft Targets	Executive Measures
<ul style="list-style-type: none"> • <i>On-call EMT members</i> 	<ul style="list-style-type: none"> • Ability to contact on-call EMT member

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<p><i>respond within 15 minutes __% of time.</i></p> <ul style="list-style-type: none"> • <i>Umatilla risk levels are reduced by __% by 20__.</i> • <i>__ total munitions will be destroyed by 20__.</i> 	<ul style="list-style-type: none"> • Ability to launch Crisis Action Team • Readiness to respond to a disaster event • Baseline of munitions to be destroyed • Baseline of risk assessment and reduction over time • Report on the implementation timeline
<p>Key Action: Develop and implement a strategy to reduce toxic releases to air, water and land.</p>	
Draft Targets	Executive Measures
<p><i>__ pounds of mercury are removed from the environment each year.</i></p>	<ul style="list-style-type: none"> • Pounds of mercury removed from DEQ's reduction efforts • Long-term toxics measure to be developed • Air toxics measure to be developed
<p>Key Action: Reduce risks from toxic contaminants already in our environment.</p>	
Draft Targets	Executive Measures
<ul style="list-style-type: none"> • <i>__ abandoned mines will be cleaned up by 20__.</i> • <i>Contaminant loading to sediments will be reduced __% by 20__.</i> 	<ul style="list-style-type: none"> • Number of abandoned mines assessed. • Percentage of completed sediments streamlining activities. • % reduction of contaminant loading to sediments. • Completion of plans for addressing sediments. • % completion of activities according to plan.

Discussion Targets for Priority 4: Involvement

<p>Key Action: Encourage personal actions by Oregonians to protect the environment.</p>	
Draft Targets	Executive Measures
<p><i>__% of Oregonians will shift from washing their cars in their driveways to washing their cars on their lawns.</i></p>	<p>Survey of Oregonians behaviors</p>
<p>Key Action: Provide Oregonians with better access to information on local environmental conditions and issues.</p>	
Draft Targets	Executive Measures
<p><i>__% of central IM service users are satisfied with the service provided</i></p> <p><i>__% of Oregonians rate DEQ's web-site as good to excellent.</i></p> <p><i>__% of DEQ's core business information is accessible to all employees.</i></p>	<p>IMAP progress measure, web-hits</p>
<p>Key Action: Support communities in solving local problems.</p>	
Draft Targets	Executive Measures
<ul style="list-style-type: none"> • <i>DEQ provides project leadership or program involvement for __% of all</i> 	<ul style="list-style-type: none"> • The number of CST projects where DEQ has a leadership or significant

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<p><i>active CST projects.</i></p> <ul style="list-style-type: none">• <i>__% of the priority communities have met with the Regional Community Solutions Team about DEQ issue(s).</i>• <i>__ new EPOC projects are funded each biennium.</i>	<p>role.</p> <ul style="list-style-type: none">• Number of priority communities that have met with the Regional Community Solutions Team about DEQ's issues of concern.• The number of EPOC community compliance schedules tracked.• The number of EPOC communities with funded projects for drinking water, wastewater or waste management compliance.
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Date: September 10, 2002
To: Environmental Quality Commission
From: Stephanie Hallock, Director *S. Hallock*
Subject: Agenda Item B, Amend Rules to Revise Fees and Requirements for Wastewater System Operator Certification
October 3-4, 2002 EQC Meeting

Department Recommendation The Department recommends the Environmental Quality Commission (EQC) adopt the proposed amendments to OAR 340-049, *Regulations Pertaining to Certification of Wastewater System Operator Personnel*, as presented in Attachment A.

Need for Rulemaking ORS 448.410 requires the EQC to adopt rules to certify operators of wastewater systems (domestic wastewater collection and treatment systems) and to establish fees to cover the Department's costs for the certification program. The EQC has increased operator certification fees only once in the program's 14 year history, in 1994.

Historically, the Department has funded the program with both operator certification fees and general funds. In 2001, the legislature, consistent with the Governor's recommended budget, shifted the certification program general funds to the wastewater management program. Those general funds contributed over half the program's revenue. At the same time, the legislature authorized 2.0 FTE for the certification program and acknowledged a fee increase would be needed to maintain the program. Projected program costs for this biennium are \$377,000, and revenue forecasts with existing fees are \$153,000, leaving a shortfall of \$224,000, or 59% of the total program budget. The proposed rule amendments would increase fees to cover this shortfall.

Although the proposed fee increases and new fees will be collected for only the second year of this biennium, fee revenue combined with funds carried over from the last biennium will cover certification program costs for the biennium at current service level of 2.0 FTE. When collected for a full biennium, the proposed fees should support the operating costs of the program in the future.

The proposed amendments also strengthen and improve the efficiency of the program by correcting long-standing deficiencies in the rules governing operator qualification and examination, program administration, and compliance and enforcement. These changes are highlighted in *Effect of Rule* below and itemized in detail in Attachment A-1, *Summary of Rule Revisions*.

- Effect of Rule** The rule amendments would:
- Revise and increase operator certification fees to:
 - Increase most fees for examinations and certificate renewal,
 - Increase all fees for new certificates and certificate reinstatement, and
 - Establish a fee for open scheduling of examinations.
 - Establish new annual fees for wastewater system owners required to employ certified operators.
 - Revise the criteria for classifying wastewater systems to incorporate long-standing practices into rule.
 - Revise requirements for operator certification to:
 - Expand qualification options for examination and certification;
 - Lengthen the certificate reinstatement period;
 - Clarify high school and GED education requirements, and criteria to evaluate post high school, continuing education, and experience credits;
 - Establish a compliance option for system owners who are without a qualified operator unexpectedly; and
 - Clarify exception to rules for very small subsurface sewage disposal systems permitted under ORS 454.655.
 - Streamline the certification process to balance workload and revenue throughout the biennium.
 - Modify definitions to:
 - Move requirements for system supervision from definitions into general requirements, and
 - Clarify and add definitions.
 - Edit and organize the rules to improve clarity, consistency and readability.

Commission Authority The Commission has authority to take this action under ORS 448.410, 468.020, and 468B.030.

Stakeholder Involvement Program staff worked with the Department's standing Wastewater System Operator Certification Advisory Committee to develop the proposed rule revisions. The committee consists of representatives of wastewater system owners and operators, professional technical educators and trainers, and interested parties including the Oregon Association of Clean Water Agencies (ACWA), League of Cities (LOC), Oregon Association of Water Utilities (OAWU), the Pacific Northwest Clean Water Association (PNCWA, formerly PNPCA). The Department of Human Services' (DHS) Drinking Water Operator Certification Program is represented at advisory committee meetings and worked with the Department on the proposed amendments. See Attachment H for committee membership.

Over several meetings, the committee considered the program's needs, budget issues and current fees, and various proposed strategies to support the program at its present level of service. Program staff also discussed certification and workload issues and process improvement needs with the committee.

The advisory committee recognized the need for a stable and effective operator certification program and recommended retaining staffing at the current 2.0 FTE. The committee recommended splitting the costs of the program equally between certified operators and owners of wastewater systems with National Pollutant Discharge Elimination System (NPDES) or Water Pollution Control Facilities (WPCF) permits who are required to employ certified operators. Operators would pay higher fees for new or renewed certification. System owners would pay the new annual program support fee based on treatment plant size using Average Dry Weather Flow (ADWF) design capacity in Million Gallons per Day (MGD), with a minimum fee established. Without program revenues from the new fees on system owners, fees for system operators would more than double. Unemployed or non-supervisory operators, who comprise the certified operator labor pool, would likely drop their voluntary certification and diminish the pool of qualified operators.

Public Comment

The Department opened public comment for the proposed amendments from May 20, 2002, to June 19, 2002, and conducted a public hearing in Portland on June 17, 2002. Three people submitted written comments during the comment period and one person attended the hearing but did not provide oral or written comment. Results of public input are provided in the Public Input and Department's Response statement in Attachment B.

Key Issues

Invoicing wastewater system owners twice in one year

To generate funds and cash flow for the '01-'03 biennium, the Department proposes to make the new program support fees for wastewater system owners retroactive to July 1, 2002, to cover the full fiscal year '03. The Department normally invoices fees in advance, during April or May before the July 1 start of a new fiscal year. To collect fees retroactively for this fiscal year, the Department plans to invoice system owners in October. To return to its normal billing cycle, the Department will invoice system owners again next April and May for fiscal year '04. The Department will explain the new fees and billing cycles to system owners with its October invoice. The program will also look at opportunities to combine invoicing for various fees in the future.

Next Steps

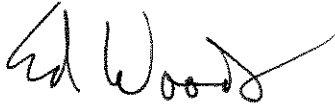
If adopted, the proposed amendments will become effective upon filing with the Secretary of State. The Department will invoice wastewater system owners for the new program support fees in October. The Rule Implementation Plan is available upon request.

- Attachments**
- A. Proposed Rule Revisions
 - 1. Summary of Rule Revisions
 - 2. Proposed Rule Revisions
 - B. Public Input and Department's Response
 - C. Presiding Officer's Report on Public Hearings
 - D. Relationship to Federal Requirements
 - E. Fiscal and Economic Impact Statement
 - F. Land Use Evaluation Statement
 - G. Revised and Restructured Fee Comparison Tables
 - H. Advisory Committee Membership

- Available Upon Request**
- 1. Legal Notice of Hearing
 - 2. Cover Memorandum from Public Notice
 - 3. Written Comment Received
 - 4. Rule Implementation Plan
 - 5. DAS Request for Fee Increase and Approval – 01/02

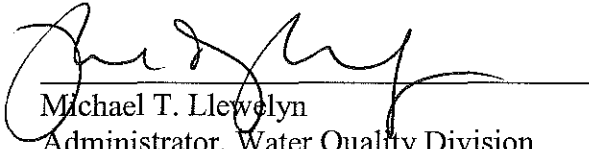
Approved:

Section:



Ed Woods
Manager, Land Application and Licensing

Division:



Michael T. Llewelyn
Administrator, Water Quality Division

Report Prepared By: Steve Desmond
Phone: (503) 229-6824

Attachment A-1 Summary of Rule Revisions

The proposed rule revisions amend existing rules under OAR 340-049 as follows:

1. Preface (OAR 340-049-0005)

- Modify language for consistency and readability.
- Clarify purpose of rules to include persons required to be certified, types of certificates, classifications of wastewater systems and establishment of fees.

2. Definitions (OAR 340-049-0010)

- Modify language for clarity, rule consistency and readability.
- Add and modify various definitions as appropriate, such as for Operator, Operating Experience, Post High School Education, and Wastewater System.
- Move specific requirements regarding wastewater system supervision out of Definitions and into General Requirements.

3. General Requirements (OAR 340-049-0015)

- Transfer language from Definitions and clarify and make minor revisions to requirements for system supervisors, contracts for system supervisors, and filing notices on system supervision.
- Clarify exemption for very small subsurface sewage disposal systems permitted in accordance with ORS 454.655.
- Clarify that the Department may require the operation of NPDES and WPCF permitted systems using subsurface sewage disposal with an Average Dry Weather Flow (ADWF) design capacity greater than 2,500 gallons per day to be under the supervision of one or more certified operators.
- Establish procedure for a conditional time extension when a designated system supervisor position is unexpectedly vacated.
- Modify language for clarity, rule consistency, and readability.

4. Classification of Wastewater Systems (OAR 340-049-0020 and 0025)

- Revise wastewater treatment system classification criteria to clarify and put in rule a long standing practice to assign points for septage or truck hauled waste treatment, biological nitrogen removal, extreme variation in raw waste characteristics, and sampling and laboratory testing.
- Put in rule a long-standing practice of assigning 15 points minimum for any treatment system using activated sludge technology to assure a Class II or higher designation.
- Place in rule a long-standing practice to assign points for extreme raw waste variation that requires operation changes, whether or not a pretreatment management program is required.
- Modify language and organize for clarity, consistency and readability.

5. Qualifications for Operator Certification (OAR 340-049-0030, 0040, 0045, 0050, and 0055)

- Clarify the pre-requisite secondary education requirements for all certificate types and grades is a high school diploma, GED certificate, or equivalent. This requires completing established or recognized equivalent requirements for curriculum credit, core competencies or examination, and not attendance only.

Attachment A-1 Summary of Rule Revisions

- Clarify criteria for evaluating Post High School and Continuing Education credits and experience credits.
- Clarify and revise criteria for evaluation of operating experience, including related experience credit.
- Allow a six-month reduction in required experience for Grade I certification for persons who have an Associate of Science (AS) Degree in water and wastewater technology or equivalent college or university education, or other Department approved AS Degree.
- Clarify that the Director may refuse to issue certification by reciprocity from another state or province based on an applicant's failure to meet education, experience and examination qualifications under these rules, or any grounds under OAR 340-049-0080 – *Refusal and Revocation of Certificate and Appeal Process*.
- Modify language and organize for clarity, consistency and readability.

6. Certification Procedures (OAR 340-049-0035, 0040, 0045, 0050, and 0055)

- Repeal outdated sections regarding the pre-1989 Voluntary Certification Program.
- Allow the Department to vary the expiration dates of certificates and to prorate renewal fees and continuing education requirements as appropriate to cover renewal periods of less than two years. This amendment enables the Department to balance renewal workload and revenue flow by establishing initial renewal periods of between six months and two years, with the next and subsequent renewal periods at two-year intervals. This should occur one time only and primarily affect operators with standard certificates due to renew on about June 30, 2003.
- Revise reinstatement procedures and establish a one-year reinstatement period for expired standard certificates.
- Revise certification-by-reciprocity procedures.
- Revise examination procedures.
- Establish procedures that allow admission to examinations prior to meeting certification requirements for education and experience.
- Place in rule the long-standing practice that allows the expiration date and renewal requirement for any new upgrade or type of standard certificate issued to a person with a current standard certificate to be the same as the pre-existing certificate.
- Modify language and organize for clarity, consistency and readability.

7. Certification and Program Support Fees (OAR 340-049-0060)

- Require fees for operator certification.
- Require annual operator certification program support fees from owners of National Pollutant Discharge Elimination System (NPDES) or Water Pollution Control Facility (WPCF) permitted wastewater systems required to employ and required to pay in advance of each operating year defined as July 1 through June 30. This fee will be retroactive and payable for the current operating year that began on July 1, 2002.
- Establish procedures for billing system owners and assessing late fees.
- Modify and transfer provisions from another rule to improve clarity and organization. Example: Incorporates application submittal and fee payment requirements formerly in the schedule of fees.

8. Fee Schedules (OAR 340-049-0065)

- Revise fees for wastewater system operators, including increased fees for new certificate applications, examinations, rescheduling of examinations, certificate renewals and reinstatements, and document replacement.
- Establish a fee for evaluation of post-exam education or experience qualifications for all certificate grades.
- Establish a fee for examinations at times other than the Department's regularly scheduled exam dates.
- Establish annual fees for system owners.
- Delete or transfer to another rule provisions specific to the application process other than fee amounts.

9. Contracts for Part-time Supervision (OAR 340-049-0070)

- Clarify that this contract rule applies to owners of wastewater systems and certified operators or entities employing certified operators.
- Modify language for clarity, rule consistency and readability.

10. Variances (OAR-340-049-0075)

- Make minor revisions.
- Correct rule references.

11. Certificate Refusal or Revocation and Appeal Process (OAR 340-049-0080)

- Clarify the reasons the Director may refuse to issue, renew or reinstate, or may suspend or revoke a certificate, including for non-compliance with regulations of any state or province when certified by reciprocity.

12. Advisory Committee (OAR 340-049-0085)

- Acknowledge existing standing Advisory Committee.

13. Statutory Authority and Statutes Implemented (All rules under OAR 340-049)

- Correct statutory references.

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Attachment A-2

(Strikeout indicates deleted text; underline indicates proposed revisions)

**AMENDMENTS TO DIVISION 049
REGULATIONS PERTAINING TO CERTIFICATION OF
WASTEWATER SYSTEM OPERATOR PERSONNEL**

**DIVISION 49,
REGULATIONS PERTAINING TO CERTIFICATION OF WASTEWATER SYSTEM
OPERATOR PERSONNEL CERTIFICATION RULES**

340-049-0005

Preface

- (1) The purpose of these rules is to help protect public health, the environment, and the water resources of Oregon ~~through~~ by establishing requirements regarding certification of wastewater system (sewage treatment works) operators proper operation and maintenance of wastewater collection and treatment systems by establishing requirements regarding certification of wastewater treatment works personnel. The principal objectives of the rules are to:
- (a) Establish criteria for classifying wastewater treatment and collection systems;
 - (b) Define the requirements and fees of for wastewater system owners whose systems must be supervised by an person operator who holds a valid certified at a grade level equal to or greater than wastewater treatment works classification under these rules;
 - (c) Define the minimum qualifications for certifying wastewater system operating personnel and those who supervise the operation of wastewater systems in accordance with wastewater systems classifications supervisors;
 - (d) Define the requirements and fees for persons who apply for certification, including examination requirements, renewal certification, and certification through reciprocity;
 - (e) Establish criteria for variances;
 - (f) Establish penalties for violations of these rules; ~~and~~
 - (g) Establish fees for operator certification; and
 - (gh) ~~Assure a reservoir~~ Encourage an adequate number of qualified wastewater treatment system operators personnel that are certified and maintain sewage treatment works wastewater treatment or wastewater collection systems in Oregon.
- (2) ~~Certification, under these regulations, is available to a~~ All personnel persons who meet the minimum qualifications in a given classification for certificate types and grades can be certified under these rules. All wastewater system personnel are encouraged to apply for certification ~~in~~ at the highest ~~classification and grade~~ consistent with their qualification. Maintenance and laboratory personnel in wastewater systems are encouraged to participate in the respective voluntary certification programs.

Stat. Auth.: ~~ORS 183-448.410, 468.020 & 468B.030~~

Stats. Implemented: ~~ORS 448.410405 to 448.430, 448.992, 468B.010 to 468B.020 & 468B.030~~

Hist.: DEQ 4-1988(Temp), f. & cert. ef. 1-29-88; DEQ 23-1988, f. & cert. ef. 9-15-88

340-049-0010

Definitions

As used in these regulations unless otherwise required by context:

- (1) "~~Approved~~Average Dry Weather Flow" (ADWF) means the design average dry weather design flow capacity of the sewagewastewater treatment system in gallons per day or Million Gallons per Day (MGD), as approved by the Department, or the population equivalent design of the system.
- (2) "~~Certified~~" for the purpose of these rules, means an individual holds as a current valid Oregon operator certificate for wastewater operator/treatment system or wastewater collection certificate system operation issued by the State of Oregon, Department of Environmental Quality.
- (3) "Commission" means the Environmental Quality Commission.
- (4) "Continuing Education Unit (CEU)" means a nationally recognized unit of measurement for assigning credits for accredited education or training that provides the participant with advanced or post high school learning. One CEU is equivalent equals to 10 contact hours of lectureparticipation in an organized continuing education experience and/or formal-organized training conducted under responsible sponsorship, capable direction and qualified instruction. Forty-five CEU are equal to one year of post high school education (30 semester hours or 45 college quarter hours).
- (5) "Contract Operations" means the wastewater system owner has a written contract with another wastewater treatment systems owner, an operations services company, entity or a certified personoperator; for supervising the operation of theits wastewater treatment system or wastewater collection system in accordance with these rules.
- (6) "Department" means the Department of Environmental Quality.
- (7) "Director" means the Director of the Department of Environmental Quality or any official designee of the Director.
- (8) "Industrial Waste" means liquid wastes from an industrial or commercial process discharged into a sanitary sewerwastewater system for conveyance and treatment.
- (9) "NPDES Permit" means a waste discharge permit issued in accordance with requirements and procedures of the National Pollutant Discharge Elimination System authorized by Section 402 of the Federal Clean Water Act and OAR Chapter 340, Division 45.
- (10) "Operating Experience" means the routine performance of duties, tasks and responsibilities at a wastewater treatment system or wastewater collection system, or in a related field as allowed under OAR 340-049-0030(4), that affect wastewater system performance or effluent quality.
- (11) "Operator" or "Wastewater System Operator" means any person engaged in the routine on site performance of duties, tasks and responsibilities in the operation of a wastewater treatment system or a wastewater collection system. This term does not include officials, managers, engineers, directors of public works or equivalent whose duties do not include the actual "hands-on" operation or supervision on site of wastewater system facilities or operators.
- (12) "Oral Examination" means an examination administered by the Department where the applicant provides verbal answers to the written examination for the type and level-grade of certification the applicant is seeking.
- (13) "Population" means the design population of the sewage-works-wastewater system represented as the number of people or the population equivalent the system is designed to serve. Equivalent population ordinarily is determined based on 70 gallons per person per day approvedaverage dry weather design-flow (ADWF) or 0.17 lbs. BOD₅ per person per day, whichever is greater.

- (1214) "Provisional Certificate" means a temporary and conditional certificate issued by the Department to a person meeting the requirements of these rules in OAR 340-049-0030(1)(a) or (2)(a).
- (1315) "Post High School Education" means relevant continuing professional, technical or academic education acquired through accredited programs such as short schools, bona fide correspondence or distance learning courses, armed services training, trade schools, community colleges, universities, colleges, formalized workshops, or seminars, etc., for which a continuing education credit CEU, or college credit, or the equivalent is issued by the training sponsor earned and acceptable to the Department. One Each year of relevant post high school education is equal to 45 CEUs, or 30 college-semester-hours, or 45 college-quarter hours, or 45 CEUs of college or university credit.
- (1416) "Shift Supervisor" means the person operator to whom delegated authority by the system owner designates authority for executing the specific practice and procedures for operating the wastewater treatment system or wastewater collection system when the system is operated on more than one daily shift. The shift supervisor is not required to be on site. The shift supervisor shall be available to the system owner and to any other operator during the shift supervisor's assigned shift. The system owner is not required to have a shift supervisor if another certified supervisor is available.
- (1517) "Supervise" means to have full and active responsibility for the daily on site technical operation of a wastewater sewage-treatment system or wastewater collection works-system, performance which may affect its performance or the quality of the effluent produced by such sewage treatment works.
- (1618) "Supervisor" means the person operator to whom the delegated authority by the system owner designates the authority for establishing and executing the specific practice and procedures for operating the wastewater treatment system or wastewater collection system in accordance with the policies of the owner of the system and the any permit requirements. The supervisor may be employed part-time when acting as the supervising party in a contractual agreement for wastewater treatment systems with an approved dry weather design flow of less than 75,000 gallons per day. The supervisor is not required to be on site at all times. The supervisor or part-time supervisor shall be available to the system owner and to any other operator.
- (1719) "Wastewater" or ("Sewage)" means the water-carried human or animal waste, from residences, buildings, industrial establishments or other places, together with such groundwater infiltration and surface water as may be present. The admixture of domestic and industrial waste, or other by-products, such as sludge, shall is also be considered wastewater or sewage.
- (1820) "Wastewater Treatment System" or ("Sewage Treatment Systems)" for the purpose of these rules and as defined in ORS 454.010, means any structure, equipment or process for treating and disposing of, or recycling or reusing of wastewater domestic waste and sludge (including industrial waste) that is discharged to the sewage-wastewater treatment works system.
- (1921) "Wastewater Collection System" or ("Sewage Collection System)" for the purpose of these rules means the trunks, arterials, pumps, pump/lift stations, piping and other appurtenances necessary to collect and carry away domestic and/or industrial liquid wastes from a community, individual, corporation or entity, which produces sewage wastewater or other liquid waste treatable in a community or private wastewater treatment facility.
- (2022) "Wastewater System" means "Sewage Treatment Works" defined in ORS 448.405 as means any structure, equipment or process required to collect, carry away and treat domestic waste and dispose of sewage as defined in ORS 454.010. Typically, components of a sewage

~~treatment work~~wastewater system include a wastewater collection system and a wastewater treatment system.

(21) ~~"Wastewater System Personnel" (Sewage System Personnel) means any person engaged in the on-site, day-to-day operation of a wastewater treatment system or a wastewater collection system. It is not intended that this title shall include city officials, county managers, engineers, directors of public works or equivalent, whose duties do not include the actual operation or on-site supervision of facilities and/or operator personnel. Other common terms that mean the same are wastewater treatment operator and wastewater collection system operator.~~

(2223) "WPCF Permit" means a Water Pollution Control Facilities permit to construct and operate a collection, treatment and/or disposal system with no discharge to navigable waters. A WPCF permit is issued by the Department in accordance with the procedures of OAR Chapter 340, Division 1445 and Division 4571.

Stat. Auth.: ORS 183-448.410, 468.020 & 468B.030

Stats. Implemented: ORS 448.405 & ORS 454.010405 to 448.430, 448.992, 468B.010 to 468B.020 & 468B.030

Hist.: DEQ 4-1988(Temp), f. & cert. ef. 1-29-88; DEQ 23-1988, f. & cert. ef. 9-15-88

340-049-0015

General Requirements

(1) ~~After July 1, 1989, eEach owner of a wastewater system owner with an approved Average dDry wWeather design fFlow (ADWF) of 0.075 MGD (75,000 gallons per day) or greater design capacity shall must have their its system supervised full-time by one or more operators who hold a valid certificate for the type of system, wastewater treatment or wastewater collection, and at a grade-level equal to or greater than the wastewater treatmentsystem classification. as defined in OAR-340-049-0020 and OAR 340-049-0025.~~

(2) ~~After July 1, 1989, aAny wastewater treatment system or wastewater collection system owner with a system having more than one daily shift shall must have their its shift supervisor, if any, certified at no less more than one grade level-lower than the wastewater system classification. The system owner is not required to have a shift supervisor if another properly certified operator is available to supervise operation of the system.~~

(3) ~~After July 1, 1989, eEach owner of a wastewater system owner with an approved A-dayD wWeather design fFlow less than 0.075 MGD (75,000 gallons per day) design capacity shall must either have their its system supervised on a part-time or full-time basis by one or more operators who hold a valid certificate for the type of system, wastewater treatment or wastewater collection, and at a grade level-equal to or greater than the wastewater treatment system classification, or contract for part-time supervision with an operator who holds a valid certificate at a grade level equal to or greater than the wastewater treatment-system classification.~~

(4) These rules shall not apply to Owners of on-site wastewater subsurface sewage disposal systems as defined under ORS 454.605 and installed or constructed under a permitted in accordance with ORS 454.605 454.655 are exempt from these requirements. Based on complexity of the wastewater system, the Department may require an owner of a NPDES or WPCF permitted wastewater system using subsurface sewage disposal with a ADWF greater

- 0.0025 MGD (2,500 gallons per day) to have its system supervised by one or more operators certified in accordance these rules.
- (5) By July 1, 1989, and in accordance with permit conditions thereafter, eEach wastewater treatment and wastewater collection system owner shall file withmust notify the Department in writing of the name of all operators, including shift supervisors, if any, designateddelegated authority by the owner the responsibility ofto supervising the operation of their-its wastewater system in accordance with these rules. The written notice must be filed with the Department's Water Quality Division, Operator Certification Program, and include the operator's certificate type, grade, and expiration date.
- (6) The system supervisor or shift supervisor is not required to be on site at all times. The system supervisor must be available to the wastewater system owner and to any other operator, and able to immediately respond on site. A shift supervisor must be available and able to immediately respond on site during an assigned shift.
- (7) An operator holding a valid Grade I Provisional wastewater treatment or wastewater collection certificate may be designated by a system owner to supervise the operation of a Class I wastewater treatment or wastewater collection system respectively.
- (8) The wastewater system owner may re-designate or replace designated operators responsible for supervising system operation with other properly certified operators at any time and shallmust notify the Department in writing within 30 days of replacement or re-designation of operators certified in accordance with these rules.
- (69) A wastewater treatment or wastewater collection system may not be without an individual operator as required in Sections (1) or (3) of this rule certified at the classification of the system for more than 30 days. During this period, the system owner must ensure a person an operator is certified for the type of system at no lessmore than one grade lower than the system classification, is-and is available to the system owner and to any other operator. This operator must also be delegated authority by the system owner to supervise the operation of the system.
- (10) When compliance with requirements in Sections (1) or (3) of this rule is not possible or practicable because the system supervisor is not available or the position is vacated unexpectedly, and another certified operator is not qualified to assume supervisory responsibility, the Director may grant a time extension of up to 120 days for compliance with the requirements in response to a written request from the system owner.
- (a) The request must justify the need for the time extension and include at least the following:
- (A) The date the system supervisor position or availability was or will be vacated;
- (B) A time schedule to recruit, hire, or otherwise make available and designate another qualified operator; and
- (C) The name of an interim supervisor and the supervisor's certificate type, grade and expiration date.
- (b) Any time extension granted will be (b) conditioned on a time schedule for the system owner to obtain the services of a qualified operator to supervise the wastewater system in accordance with these rules, and may be revoked if the system is operated in violation of a NPDES or WPCF permit limit or ORS 468B.025.
- (11) For contract operations as defined in OAR 340-049-0010(5), the system owner must have and maintain a written contract on file and, upon request by the Department, must provide a copy of contract provisions for supervising the operation of its system for Department review. Contracts for part-time system supervision allowed under Section 3 of this rule must meet all requirements in OAR 340-049-0070.

Stat. Auth.: ORS ~~183~~448.410, 468.020 & 468B.030

Stats. Implemented: ORS 448.405 to 448.430, 448.992, 468B.010 to 468B.020, 468B.030410,
ORS 448.415, ORS 448.430 & ORS 468B.050

Hist.: DEQ 4-1988(Temp), f. & cert. ef. 1-29-88; DEQ 23-1988, f. & cert. ef. 9-15-88

340-049-0020

Classification of Wastewater Systems

- (1) All wastewater systems ~~shall~~ will be classified by the Department as a wastewater treatment systems and/or wastewater collection systems, as appropriate, in accordance with the following classification system:
 - (a) Wastewater Treatment Systems:
 - (A) Class I -- 30 total points or less;
 - (B) Class II -- 31-55 total points;
 - (C) Class III -- 56-75 total points;
 - (D) Class IV -- 76 or more points.
 - (b) Wastewater Collection Systems:
 - (A) Class I -- 1,500 or less design population;
 - (B) Class II -- 1,501 to 15,000 design population;
 - (C) Class III -- 15,001 to 50,000 design population;
 - (D) Class IV -- 50,001 or more design population.
- (2) Wastewater treatment system classifications ~~shall~~ will be derived ~~by~~ from the total points assigned based on criteria shown in OAR 340-049-0025.
- (3) The Director ~~shall~~ will advise wastewater system owners of the classification of their system(s).
- (4) If the complexity of a wastewater treatment system is not reflected in OAR 340-049-0025—~~Criteria for Classifying Wastewater Treatment Systems (OAR 340-049-0025)~~, the Director may ~~designate a classification~~ designate a wastewater treatment system higher than that which would ~~be the classification~~ based on accumulated points upon written notice to the wastewater treatment system owner ~~and in accordance with OAR 340-045-0005, et seq., and OAR 340-014-0005, et seq., as applicable.~~ The designation ~~shall~~ must be consistent with the intent of the classification system.
- (5) If deemed appropriate, the Director may ~~designate a classification~~ designate a classification for a wastewater collection system higher than that, which would be ~~solely~~ the classification based on population upon written notice to the wastewater collection system owner ~~and in accordance with permit issuance procedures contained in OAR 340-045-0005, et seq., and OAR 340-014-0005, et seq., as applicable.~~ The designation ~~shall~~ must be consistent with the intent of the classification system.
- (6) The Director may change the classification of a wastewater system upon written notice to the system owner ~~in accordance with OAR 340-045-0005, et seq., and OAR 340-014-0005, et seq., as applicable,~~ and ~~shall~~ will give the owner a reasonable time to comply with the requirements of the new classification.
- (7) A wastewater system owner may appeal ~~the classification~~ classification of their ~~its~~ system in accordance with applicable variance requirements in OAR 340-049-0075, ~~Variances,~~ and OAR 340-045-0005, et seq., or OAR 340-014-0005, et seq.

Stat. Auth.: ORS 183-448.410, 468.020 & 468B.030

Stats. Implemented: ORS 448.405 to 448.430 & 448.992 410

Hist.: DEQ 4-1988(Temp), f. & cert. ef. 1-29-88; DEQ 23-1988, f. & cert. ef. 9-15-88

340-049-0025

Criteria for Classifying Wastewater Treatment Systems

(1) Design Population or Population Equivalent —Points:

- (a) Less than 750 -- 0.5 points;
- (b) 751 to 2000 -- 1 point;
- (c) 2001 to 5000 -- 1.5 points;
- (d) 5001 to 10,000 -- 2 points;
- (e) Greater than 10,000 -- 3 points plus 1 point per 10,000.

(2) ~~Approved Dry Weather Design Flow (ADWFMGD)~~ Points:

- (a) Less than 0.075 MGD -- 0.5 point;
- (b) Greater than 0.075 to 0.1 MGD -- 1 point;
- (c) Greater than 0.1 to 0.5 MGD -- 1.5 points;
- (d) Greater than 0.5 to 1.0 MGD -- 2 points;
- (e) Greater than 1.0 MGD -- 3 points plus; 1 point per 1 MGD.

(3) Unit Processes— Points:

(a) Preliminary-Treatment and Plant Hydraulics:

- (A) Comminution -- 1 point;
- (B) Grit ~~r~~Removal, gravity -- 1 point;
- (C) Grit ~~r~~Removal, mechanical -- 2 points;
- (D) Screen(s), in-situ or mechanical -- 1 point;
- (E) Influent-Pump/Lift Station(s) -- 2 points;
- (F) Flow Equalization-Unit -- 1 point.

(b) Primary Treatment:

- (A) Community Septic Tank(s) -- 2 points;
- (B) Clarifier(s) -- 5 points;
- (C) Flotation Clarifier(s) -- 7 points;
- (D) Chemical Addition System -- 2 points;
- (E) Imhoff Tank -- 3 points.

(c) Secondary, Advanced, and Tertiary Treatment:

- (A) Low Rate Trickling Filter(s) -- 7 points;
- (B) High Rate Trickling Filter(s) -- 10 points;
- (C) Trickling Filter - Solids Contact System -- 12 points;
- (D) ~~Single mode a~~Activated sSludge less than 0.1 MGD -- ~~6~~15 points;
- (E) ~~Two or more modes activated sludge less than 0.1 MGD~~ -- 8 points;
- (~~H~~E) Pure ~~e~~Oxygen aActivated ~~s~~Sludge -- 20 points;
- (~~F~~G) Activated Bio Filter Tower less than 0.1 MGD -- 6 points;
- (~~J~~G) Activated Bio Filter Tower greater than 0.1 MGD -- 12 points;
- (~~K~~H) Rotating Biological Contactors 1 to 4 shafts -- 7 points;
- (~~L~~I) Rotating Biological Contactors, 5 or more shafts -- 12 points;
- (~~M~~J) Stabilization Lagoons, 1 to 3 cells without aeration -- 5 points;
- (~~N~~K) Stabilization Lagoons, 2 or more cells with primary aeration -- 7 points;
- (~~O~~L) Stabilization Lagoons, 2 or more with full aeration -- 9 points;
- (~~P~~M) Recirculating ~~g~~Gravel fFilter -- 7 points;

- (~~QN~~) Chemical Precipitation Unit(s) -- 3 points;
- (~~RO~~) Gravity Filtration Unit(s) -- 2 points;
- (~~SP~~) Pressure Filtration Unit(s) -- 4 points;
- (~~FQ~~) Nitrogen Removal, Meehanical~~Biological~~ or eChemical~~/Biological~~ sSystem -- 4 points;
- (~~UR~~) Nitrogen Removal, Biological~~/anoxic system~~ Designed Extended Aeration Only -- 2 points;
- (~~VS~~) Phosphorus Removal Units -- 4 points;
- (~~WT~~) Effluent Microscreen(s) -- 2 points;
- (~~XU~~) Chemical Flocculation Units -- 3 points;
- (~~V~~) Chemical Addition System -- 2 points.

(d) Solids Handling:

- (~~YA~~) Anaerobic Primary Sludge Digester(s) without Mixing and Heating -- 5 points;
- (~~ZB~~) Anaerobic Primary Sludge Digester(s) with Mixing and Heating -- 7 points;
- (~~AAC~~) Anaerobic Primary and Secondary Sludge Digesters -- 10 points;
- (~~BBD~~) Sludge Digester Gas reuse -- 3 points;
- (~~CCE~~) Aerobic Sludge Digester(s) -- 8 points;
- (~~DDF~~) Sludge Storage Lagoon(s) -- 2 points;
- (~~EEG~~) Sludge Lagoon(s) with aeration -- 3 points;
- (~~FFH~~) Sludge Drying Bed(s) -- 1 point;
- (~~GGI~~) Sludge Air or Gravity Thickening -- 3 points;
- (~~HHJ~~) Sludge Composting, In Vessel -- 12 points;
- (~~HK~~) Sludge Belt(s) or Vacuum Press(es)/Dewatering -- 5 points;
- (~~JL~~) Sludge Centrifuge(s) -- 5 points;
- (~~KKM~~) Sludge Incineration -- 12 points;
- (~~LLN~~) Sludge Chemical Addition Unit(s) -- 2 points;
- (~~MMO~~) Non-Beneficial Sludge Disposal -- 1 point;
- (~~NNP~~) Beneficial Sludge Utilization -- 3 points;

(e) Disinfection:

- (~~OOA~~) Liquid eChlorine dDisinfection -- 2 points;
- (~~PPB~~) Gas eChlorine dDisinfection -- 5 points;
- (~~QQC~~) Dechlorination sSystem -- 4 points;
- (~~RRD~~) Other disinfection systems including ultraviolet and ozonation -- 5 points.

(4) Effluent Permit Requirements —Points:

- (a) Minimum of secondary effluent limitations for BOD and/or Total Suspended solids -- 2 points;
- (b) Minimum of 20 mg/4L BOD and/or †Total Suspended Solids -- 3 points;
- (c) Minimum of 10 mg/4L BOD and/or Total Suspended Solids -- 4 points;
- (d) Minimum of 5 mg/4L BOD and/or Total Suspended Solids -- 5 points;
- (e) Effluent limitations for effluent oxygen -- 1 point.

(5) Variation in Raw Waste—Variation Points. Points in this category will be awarded only when conditions are extreme; to the extent that operation and handling procedure changes are needed to adequately treat the waste due to variation of raw waste:

- (a) Recurring deviations or excessive variations of 100% to 200% in strength or flow — 2 points;

(b) Recurring deviations or excessive variations of more than 200% in strength or flow, or conveyance and treatment of industrial wastes covered by the federal a pretreatment program – 4 points.

(c) Septage or truck hauled waste – 2 points

(6) Sampling and Laboratory Testing Points:

(a) Samples for BOD, Total Suspended Solids performed by outside laboratory -- 2 points;

(b) BOD or, Total Suspended Solids analysis performed at treatment plant -- 4 points;

(c) Fecal Coliform Bacteriological analysis performed by outside laboratory -- 1 point;

(d) Fecal Coliform Bacteriological analysis performed at treatment plant -- 2 points;

(e) Nutrient, Heavy Metals, or Organics analysis by outside laboratory -- 3 points;

(f) Nutrients, Heavy Metals and/or Organics analysis performed at treatment plants -- 5 points.

Stat. Auth.: ~~ORS 183-448.410, 468.020 & 468B.030~~

Stats. Implemented: ~~ORS 448.405 to 448.430 & 448.992410~~

Hist.: ~~DEQ 23-1988, f. & cert. ef. 9-15-88~~

340-049-0030

Minimum Qualifications for Wastewater Treatment System and Wastewater Collection System Operator Certification, New Certificates and Certificate Upgrades

(1) Minimum qualifications for Classifications Wastewater Treatment System Operator

Certification are established as follows: ~~Wastewater Treatment System Operator, Grade Levels I-IV; and Provisional Wastewater Treatment System Operator; Wastewater Collection System Operator, Grade Levels I-IV, and Provisional Wastewater Collection System Operator; Combination Wastewater Treatment and Collection Systems Operator, Grade Level I and Combination Wastewater Treatment and Collection System Operator, Grade Level II: (a) Wastewater Treatment System Operator Levels:~~

(Aa) Grade I Provisional Wastewater Treatment System Operator Certification:

(A) Persons may qualify for a Grade I Provisional Certificate to obtain on the job training and experience to meet the standard Grade I Wastewater Treatment System Operator Grade Level I Certificate qualifications if they are:

(i) Employed Are gaining acceptable operating experience at a wastewater treatment system at the time of making application; and

(ii) Have completed a high school diploma, GED certificate, or equivalency; and

(iii) Are participating in or have completed a Department approved training program; and

(iv) Are supervised on a full-time or part-time basis by a certified wastewater treatment system operator.

The Provisional Certificate will be current for a period of 12 months after which the individual must have passed a Grade Level I exam within the 12-month period. Upon passing the Grade Level I examination and obtaining 12 months experience at a wastewater treatment system, the individual will receive a Grade Level I certificate. It shall remain valid for the remaining certification period in which the Provisional Certificate was granted.

(B) The Grade I Provisional Certificate is not renewable. This conditional certificate will be issued for a period of 12 months during which time the individual may apply to take the Grade I wastewater treatment examination.

(C) Upon passing the Grade I wastewater treatment examination and obtaining a total of 12 months acceptable operating experience at a wastewater treatment system, the

individual may submit a post-examination application and fee for evaluation of qualification for standard Grade I certification.

~~(Bb)~~ Grade Level-I Wastewater Treatment System Operator Certification-Qualifications:

~~(A)~~ Persons may qualify for this classification/certificate type and grade level if they meet the following qualifications:

~~(i)~~ Education: Completion of a High school diploma, GED certificate, or equivalent;
and

~~(ii)~~ Experience:

~~(I)~~ Twelve months acceptable operating experience at a Class I or higher Wastewater Treatment Plant System; or

~~(II)~~ Six months operating experience, not to include credit for any related experience, and an Associate of Science degree in water or wastewater technology, or Department approved Associate of Science degree, or combination of college or university education accepted as equivalent to an Associate of Science degree in water or wastewater technology, and

~~(iii)~~ Examination: Satisfactorily pass the Wastewater Treatment Plant Operator Grade Level-I examination.

~~(Cc)~~ Grade Level-II Wastewater Treatment System Operator Certification-Qualifications.

~~(A)~~ Persons may qualify for this classification/certificate type and grade level if they meet the following qualifications:

~~(i)~~ Education: Completion of a High school diploma, GED certificate, or equivalent;
and

~~(ii)~~ Experience: Three years acceptable operating experience at a Class I or higher Wastewater Treatment System, or two years at a Class I or higher Wastewater Treatment System and one year of post high school education; and

~~(iii)~~ Examination: Satisfactorily pass the Wastewater Treatment Plant Operator Grade Level-II examination.

~~(Dd)~~ Grade Level-III Wastewater Treatment System Operator Certification-Qualifications.

~~(A)~~ Persons may qualify for this certificate type and grade Operator Grade Level-III Certification if they meet the following qualifications:

~~(i)~~ Education: Completion of a High school diploma, GED certificate, or equivalent;
and

~~(ii)~~ Experience:

~~(I)~~ Eight years acceptable operating experience, of which half must have been at a Class II or higher Wastewater Treatment System; or

~~(II)~~ Five years experience, of which half must have been at a Class II or higher Wastewater Treatment System, and one year of post high school education; or

~~(III)~~ Four years experience, of which half must have been at a Class II or higher Wastewater Treatment System, and two years post high school education; or

~~(IV)~~ Three years experience, of which half must have been at a Class II or higher Wastewater Treatment System, and three years of post high school education;
and

~~(iii)~~ Examination: Satisfactorily pass the Wastewater Treatment Operator Grade Level III examination.

~~(Ee)~~ Grade Level-IV Wastewater Treatment System Operator Certification-Qualifications.

~~(A)~~ Persons may qualify for this certificate type and Operator Grade Level-IV grade Certification if they meet the following qualifications:

- (i) Education: ~~Completion of a~~ High school diploma, GED certificate, or equivalency; and a minimum of one year post high school education; and
 - (ii) Experience:
 - (I) Ten years acceptable operating experience, of which half must have been at a Class III or higher Wastewater Treatment System; or
 - (II) Six year experience, of which half must have been at a Class III or higher Wastewater Treatment System, and two years of post high school education; or
 - (III) Five year experience, of which half must have been at a Class III or higher Wastewater Treatment System, and three years of post high school education; or
 - (IV) Four years experience, of which half must have been at a Class III or higher Wastewater Treatment System, and four years post high school education; and
 - (iii) Examination: Satisfactorily pass a the Wastewater Treatment Operator-Grade Level IV examination.
- (b2) Minimum qualifications for Wastewater Collection System Operator Certification are as follows:
- (Aa) Grade I Provisional Wastewater Collection System Operator Certification:
 - (A) Persons may qualify for a Grade I Provisional Certificate to obtain on the job training and experience to meet the standard Grade I Wastewater Collection System Operator Grade Level I Certificate qualifications if they are:
 - (i) Employed Are gaining acceptable operating experience at a wastewater collection system at the time of making application; and
 - (ii) Have completed a high school diploma, GED certificate, or equivalency; and
 - (iii) Are participating in or have completed a Department approved training program; and
 - (iv) Are supervised on a full-time or part-time basis by a certified wastewater collection system operator.
 - The Provisional Certificate will be current for a period of 12 months after which the individual must have passed a Grade Level I written exam within the 12-month period. Upon passing the Grade Level I exam and obtaining 12 months experience at a wastewater collection system, the individual will receive a Grade Level I certificate current for the remaining certification period in which the Provisional certificate was granted.
 - (B) The Grade I Provisional Certificate is not renewable. This conditional certificate will be issued for a period of 12 months during which time the individual may apply to take the Grade I wastewater collection examination.
 - (C) Upon passing the Grade I wastewater collection examination and obtaining a total of 12 months acceptable operating experience at a wastewater collection system, the individual may submit a post-examination application and fee for evaluation of qualification for standard Grade I certification.
 - (Bb) Grade Level I Wastewater Collection System Operator Certification- Qualifications:

Persons may qualify for this classification certificate type and grade level if they meet the following qualifications:

 - (i) Education: ~~Completion of a~~ High school diploma, GED certificate, or equivalency; and
 - (ii) Experience:
 - (I) Twelve months acceptable operating experience at a Class I or higher Wastewater Collection System; or

- (II) Six months operating experience, not to include credit for any related experience, and an Associate of Science degree in water or wastewater technology, or Department approved Associate of Science degree, or combination of college or university education accepted as equivalent to an Associate of Science degree in water or wastewater technology; and
- (iii) Examination: Satisfactorily pass ~~a the~~ Wastewater Collection System Operator Grade Level-I examination.
- (C) Grade Level-II Wastewater Collection Wastewater System Operator Certification Qualifications.
- (A) Persons may qualify for this ~~classification certificate type~~ and grade level if they meet the following qualifications:
- (i) Education: ~~Completion of h~~ High school diploma, GED certificate, or equivalent; and
- (ii) Experience: Three years acceptable operating experience at a Class I or higher Wastewater Collection System, or two years experience at a Class I or higher Wastewater Collection System, and one year of post high school education; and
- (iii) Examination: Satisfactorily pass ~~a the~~ Wastewater Collection System Operator Grade Level-II examination.
- (D) Grade Level-III Wastewater Collection System Operator Certification Qualifications.
- (A) Persons may qualify for this ~~classification certificate type~~ and grade level if they meet the following qualifications:
- (i) Education: ~~Completion of h~~ High school diploma, GED certificate, or equivalent; and
- (ii) Experience:
- (I) Eight years acceptable operating experience, of which half must have been, at a Class II or higher Wastewater Collection System; or
- (II) Five years experience, of which half must have been at a Class II or higher Wastewater Collection System, and one year of post high school education; or
- (III) Four years experience, of which half must have been at a Class II or higher Wastewater Collection System, and two years post high school education; or
- (IV) Three years experience, of which half must have been at a Class II or higher Wastewater Collection System, and three years of post high school education; and
- (iii) Examination: Satisfactorily pass ~~a the~~ Wastewater Collection System Grade Operator Level-III examination.
- (E) Grade Level-IV Wastewater Collection System Operator Certification Qualifications.
- (A) Persons may qualify for this ~~classification certificate type~~ and grade level, if they meet the following qualifications:
- (i) Education: ~~Completion of h~~ High school diploma, GED certificate, or equivalent; and
- (ii) Experience:
- (I) Ten years acceptable operating experience, of which half must have been, at a Class III or higher Wastewater Collection System; or
- (II) Eight years experience, of which half must have been at a Class III or higher Wastewater Collection System, and one year of post high school education; or
- (III) Six years experience, of which half must have been at a Class III or higher Wastewater Collection System, and two years post high school education; or

- (HHIV) Five years experience, of which half must have been, at a Class III or higher Wastewater Collection System, and three years of post high school education;
or
(IVV) Four years experience, of which half must have been at a Class III or higher Wastewater Collection System, and four years post high school education; and
(iii) Examination: Satisfactorily pass a the Wastewater Collection System Operator Grade Level-IV examination. ~~(c) Wastewater Treatment System and Wastewater Collection System Grade Level I Combination Certificate: Persons may qualify at renewal for this certificate provided they meet the minimum qualifications set forth in paragraphs (1)(a)(B) and (1)(b)(B) of this rule for wastewater treatment system and wastewater collection system personnel Grade Level I;~~
d) ~~Wastewater Treatment System and Wastewater Collection System Grade Level-II Combination Certificate: Persons may qualify at renewal for this certification classification provided they meet the minimum qualifications set forth in paragraphs (1)(a)(C) and (1)(b)(C) of this rule for wastewater treatment system and wastewater collection system personnel Grade Level-II.~~
- (3) The Department will consider the direct relevance of post high school education to wastewater treatment or wastewater collection system operator job tasks and required knowledge, e.g. science, mathematics, engineering, operation, maintenance and management, when determining the number of CEUs or equivalent, or hours of college credit allowed for qualifying for certification under these rules:
- (a) CEUs to be acceptable must have direct application to the operation or management of wastewater systems and be acquired through an accredited continuing education experience where the trainer, training sponsor, or educational institution awards a CEU. CEUs or equivalent may be accepted from other states or accredited programs having standards equal to or higher than the rules in this Division;
- (b) Degrees or any accumulation of credit hours must be in the fields of engineering, chemistry, water/wastewater technology or physical or biological science from an educational institution accredited through an agency recognized by the U.S. Department of Education to be acceptable;
- (c) CEUs or equivalent and credit hours may be combined to satisfy post high school educational requirements; -and
- (d) Education for qualifying for certification must be documented by copies of diplomas or certificates, degrees, transcripts, grade reports, letters of participation or other official records.
- (4) Experience credit is based on acceptable operating experience where 12 months of full-time equivalent experience equals one year. Acceptable operating experience includes:
- (a) Experience in performance of operator or system supervisor duties, tasks and responsibilities may satisfy up to 100 percent of the experience credit;
- (b) Experience as an operator trainee or student intern may satisfy up to 100 percent of the experience credit. The Department will consider experience or education, but not both, in qualifying an applicant where education credit is earned for on-the-job training;
- (c) The Department shall give credit to meet experience qualifications set forth in section (1) of this rule for related experience up to 50 percent, in any of the following areas, With the total in any of related experience credit not to exceed 6 months Related experience in any of the following areas may satisfy up to 50 percent of the experience credit subject to limitations in OAR 340-049-030(4)(d) and (e):

- (aA) Wastewater sewage-treatment systems operations;
- (bB) Wastewater collection system operations and maintenance;
- (cC) Water treatment system operations;
- (dD) Water distribution system operations;
- (eE) Water treatment laboratory;
- (fF) Wastewater treatment laboratory;
- (gG) Water or Wastewater treatment systems maintenance;
- (hH) Industrial waste treatment operations and maintenance.;
- (I) Other substantially equivalent related field.

(d) The total of related experience credit must not exceed more than one-half of the acceptable operating experience requirement for certification under OAR 340-049-030(1) or (2).

(e) Related experience credit must not reduce Grade III or Grade IV minimum requirements for wastewater system class level operating experience under OAR 340-049-030(1) or (2).

~~(3) Education credit can be gained in programs such as short schools, bona fide correspondence courses, trades schools, community colleges, formalized workshops, seminars, and other training for which CEU is given by the training sponsor.~~

~~(4) The Department shall consider the relevance of the subject matter covered at seminars, workshops, conferences, and other training sessions when evaluating the education qualifications of an applicant for certification.~~

~~(5) The applicant for certification has the responsibility for must providing education and experience and education records to the Department with the application for screening and evaluating the applicant's qualifications.~~

(6) The Department may waive the experience or education requirements for admission to an examination under provisions outlined in OAR 340-049-0055(9) - Examinations.

Stat. Auth.: ORS 483-448.410, 468.020 & 468B.030

Stats. Implemented: ORS 448.405 to 448.430 & 448.992 410

Hist.: DEQ 4-1988(Temp), f. & cert. ef. 1-29-88; DEQ 23-1988, f. & cert. ef. 9-15-88

340-049-0035

Certification of Wastewater Treatment System and Wastewater Collection System Operators Personnel

~~(1) All applications received under the Department Administered Voluntary Certification temporary rules and until September 9, 1988, shall be processed in accordance with the Voluntary Certification Program rules~~
To be considered for operator certification a person must file a complete application with the Department using approved forms or technology by the filing deadline, if any, established under these rules. The Department will consider only those applications that are complete for processing and include all required qualification information and documentation not already on file with the Department and the appropriate fees. Applications that are incomplete, unsigned or improperly signed, or that do not contain the required documentation will not be accepted by the Department for filing.

~~(2) Those persons holding a current voluntary Oregon Wastewater Treatment Operator or Collection System Operator certificate issued by the Department before May 1, 1989, shall be issued certificates by the Director upon receipt of a completed renewal application. These~~

~~certificates shall be issued for the same classification and grade as the certificate issued under the voluntary program, unless an upgrade certificate has been obtained.~~

- (32) ~~The Director shall will issue certificates to persons meeting the education, and experience and examination qualifications set forth in OAR 340-049-0030, and who satisfactorily pass the exam for the classification certificate type and grade level sought. Grade I Provisional certificate qualifications do not include an examination. The Director may refuse to issue a certificate as provided in OAR 340-049-0080.~~
- (3) The Director may issue new certificates with up to a two-year expiration date and subject to renewal requirements in OAR 340-049-0040. Exceptions include Provisional certificates, which expire after 12 months, and new standard certificates issued to persons already certified under these rules, which expire on the same date as the pre-existing certificates.
- (4) The Director will issue a Grade I Provisional certificate valid for 12 months to persons meeting the education and experience qualifications set forth in OAR 340-049-0030 (1)(a) and (2)(a). Upon qualification, including passing a Grade I examination, the Director may issue a standard (renewable) Grade I certificate. The Director may refuse to issue a certificate as provided in OAR 340-049-0080.
- (45) ~~From the date of adoption of these rules and until May 1, 1989, Wastewater Collection Personnel may apply for Collection Certification or Upgrade Collection Certification based on the education and experience qualifications. No written examination will be required. After May 1, 1989, all applicants for Wastewater collection certification will be required to meet all qualifications for certification in OAR 340-049-0030(b) including the requirement of passing a written examination. Certificates in Wastewater Collection System Operation issued by the Department on or before May 1, 1989, will continue to be valid as long as certificate renewal and reinstatement requirements are satisfied and certificates are not revoked.~~
- (6) ~~Each certificate issued shall will designate the certificate type classification and grade of the person certified, and will have an expiration date stated on the certificate or on an accompanying certificate renewal card.~~
- (7) ~~The Department will not consider an application for a new certificate, including a certificate at a higher grade, if the certificate requested is for the same type, treatment or collection, as an expired certificate that is still under the one-year reinstatement period in OAR 340-049-0045. Once the expired certificate is reinstated, an application for a new certificate may be processed.~~

Stat. Auth.: ORS 183448.410, 468.020 & 468B.030

Stats. Implemented: ORS 448.410, ORS 448.415 & ORS 448.420

Hist.: DEQ 4-1988(Temp), f. & cert. ef. 1-29-88; DEQ 23-1988, f. & cert. ef. 9-15-88

340-049-0040

Certification and Renewal

- (1) ~~All certificates issued by the Department before May 1, 1989 shall be valid until June 30, 1989. Subject to these requirements and OAR 340-049-0080, a certificate holder may renew a certificate for up to a two-year period if the certificate holder files a complete renewal application with the Department by the certificate expiration date, includes payment of the renewal fee in OAR 340-049-0065(1), and provides satisfactory evidence to the Department of continuing education.~~

- (a) The accumulation of a minimum of two CEUs or two hours of college or university credit every two years in relevant subject matter as described in OAR 340-049-0030(3) is considered satisfactory.
 - (b) The Department will determine whether the CEUs or hours of credit are directly relevant to a wastewater system operator's job tasks and required knowledge and satisfy the continuing education requirement.
 - (c) A person holding both wastewater treatment system and wastewater collection system operator certificates issued under these rules must complete only a minimum of two CEUs or two hours college or university credit to renew both certificates.
- (2) Beginning July 1, 1989 and thereafter, a certificate may be renewed for a two-year term to those who submit a complete renewal application and payment of the fee required by OAR 340-049-0065. Grade I Provisional certificates are not renewable. Persons may apply for a new Provisional certificate if they meet all the qualifications under OAR 340-049-0030(1)(a) or (2)(b).
- (3) The Department will send each person holding a valid certificate a renewal notice and application at least 60 days before the certificate lapses expires. The notice will be mailed to the last address of record with the Department's Water Quality Division, Operator Certification Program, and will show the certificate expiration date, renewal period, fee, and date the fee is due. Failure to receive notice does not relieve the holder. Operators are not relieved of responsibility to renew their certificates if they do not receive renewal notices.
- (4) For a certificate or renewal issued after May 1, 1989, the next and subsequent renewal of a certificate shall be based on demonstration of continued professional growth in the field. An operator shall submit satisfactory evidence of completion of approved training of a minimum of two CEUs as a condition for renewal of the certificate. An operator holding more than one certificate issued under these rules, need only complete the training required to satisfy renewal requirements for one of these certificates.
- (4) The Department may extend the certificate expiration date for up to 30 days, after which time the certificate will be invalid. A certificate holder may reinstate an expired certificate according to procedures and requirements in OAR 340-049-0045.
- (5) The Department will establish the continuing education reporting date for each certificate holder. Generally, this will be at two-year intervals and at the time of certificate renewal.
- (6) The Department may vary the expiration date of a certificate and prorate the renewal fee and continuing education requirement to cover renewal periods of less than two years. The Department will give each person written notice of the certificate expiration date assigned, the prorated fee and continuing education requirement and dates due.
- (7) Certificate holders must maintain their own records of course/program information and attendance, and must submit documentation to the Department upon request as a condition of renewal.

Stat. Auth.: ORS 183448.410, 468.020 & 468B.030

Stats. Implemented: ORS 448.410, ORS 448.415 & ORS 448.420

Hist.: DEQ 4-1988(Temp), f. & cert. ef. 1-29-88; DEQ 23-1988, f. & cert. ef. 9-15-88

340-049-0045

Reinstatement of ~~Lapsed~~ Expired Certificates

- (1) ~~Renewal applications received by May 1, 1989 will not require reexamination if the certificate has not lapsed more than three years. The Department will send a notice of certificate expiration to each certificate holder at the last address of record. Operators are not relieved of responsibility to reinstate their certificates if they do not receive the notice.~~
- (2) ~~After May 1, 1989, an operator seeking renewal of a lapsed certificate may submit an application for renewal within 180 days after the certificate lapses without reexamination. Upon receipt of The Director will renew an expired certificate if the certificate holder submits a renewal application within one year of the date of expiration, including proof that all renewal qualifications have been met and payment of the a reinstatement fee and the renewal fee required by in OAR 340-049-0065(1), the Director shall renew the certificate.~~
- (3) ~~After May 1, 1989, the Department will require reexamination of an operator whose renewal application is post-marked more than 180 days after the certificate lapses. If a certificate holder fails to renew an expired certificate within one year following the date of expiration, the certificate holder may re-apply for certification and must meet the requirements established for a new applicant, including passing an examination and payment of the application fee and examination fee.~~

Stat. Auth.: ORS 183448.410, 468.020 & 468B.030

Stats. Implemented: ORS 448.410, ORS 448.415 & ORS 448.420

Hist.: DEQ 4-1988(Temp), f. & cert. ef. 1-29-88; DEQ 23-1988, f. & cert. ef. 9-15-88

340-049-0050

Certificate ~~and~~ by Reciprocity

- (1) ~~The Director-Department~~ may accord a person with a valid certificate in good standing in another state or province reciprocal treatment and issue a certificate without examination when, in the judgement of the Director, the certification examination requirements in the other state or province are substantially equivalent to and the person's education and experience meet the requirements set forth in this Divisionese rules.
- (2) Persons requesting reciprocity must submit a complete application and pay the reciprocity fee as listed in OAR 340-049-0065(1).
- (3) The Department will not consider an application for a new certificate by reciprocity, including a certificate at a higher grade, if the certificate requested is of the same type, treatment or collection, as an expired Oregon certificate that is still under the one-year reinstatement period in OAR 340-049-0045. Once the expired certificate is reinstated, an application for a new certificate by reciprocity may be processed.
- (4) The expiration date of a new operator certificate by reciprocity where there exists a valid Oregon certificate will be the same as the Oregon certificate.
- (25) When such reciprocity is granted, the person shall will be subject to the same requirements of renewal as any other persons initially certified by under these rules.
- (6) The Director may refuse to issue a certificate by reciprocity based on a person's failure to meet education, experience or examination qualifications as stated above or any ground for refusal in OAR 340-049-0080(1).

Stat. Auth.: ORS 183448.410, 468.020 & 468B.030

Stats. Implemented: ORS 448.410, ORS 448.415 & ORS 448.420

Hist.: DEQ 4-1988(Temp), f. & cert. ef. 1-29-88; DEQ 23-1988, f. & cert. ef. 9-15-88

340-049-0055

Examinations

- (1) Persons applying for a new certification requiring examinations, including or to be certified at a higher grades, level must be approved and scheduled for examination by the Department, except pursuant to OAR 340-049-0035(4),
- (2) To be admitted to an examination, a person must file a completed application and with payment of the fee(s) required by OAR 340-049-0065(1), and meet the education and experience qualifications for the classification certificate type and grade-level sought, unless the person has obtained a conditional waiver under Section 9 of this rule.
~~All claims for education must be documented.~~
- (3) Examinations will be administered by the Department or its designee at places and times scheduled by the Department, with 60 days public notice of the schedule. A minimum of two examinations will be scheduled per calendar year.
- (24) To be considered for admittance to Department scheduled examinations, All applications for admission to the certification examinations must be submitted or postmarked to the Department by no later than the first day of the month preceding the month of the scheduled examination.
- (5) The Department, at its discretion, may administer written or oral examinations at times other than those scheduled, without public notice.
- (6) Any applicant may request in writing an examination on a date other than the scheduled dates established and published by the Department. The request for open scheduling of an examination should be made with the application and must include payment of the open schedule examination fee listed in OAR 340-049-0065(1). This fee is in addition to any required application fee and fees for examination, re-examination, or re-scheduling of an examination, except that this fee will not apply to special scheduling for disability accommodation under the federal American's with Disabilities Act.
- (37) The Department will notify the applicants whether of they are eligibility eligible for an examinations and the conditions of eligibility.
- (48) The Department will schedule applicants Persons accepted for examinations shall be examined at for the next scheduled examination date, unless the applicant requests a later date Department at its discretion, chooses to administer an exam at times in addition to the scheduled exams.
- (9) The Department may waive the education or experience requirements for admission to an examination under the following conditions:
 - (a) The applicant provides evidence to the satisfaction of the Department of current enrollment in a course of study that will meet education qualifications in OAR 340-049-0030 for the type and grade of certificate the applicant is seeking not later than the end of the fourth calendar month following the month in which the examination is given, or
 - (b) The applicant is currently gaining acceptable operating experience that will meet certificate qualifications in OAR 340-049-0030 for the type and grade of certificate the applicant is

- seeking not later than the end of the fourth calendar month following the month in which the examination is given, or
- (c) The applicant does not meet the experience or supervision requirements for a Provisional or standard Grade I wastewater treatment or collection certificate under this Division, but is otherwise qualified by education and has completed or is participating in a Department approved training program. This applicant may take a Grade I treatment or Grade I collection examination and upon passing the examination will be recognized by the Department as a non-certified operator in training for a period not to exceed 36 calendar months during which time the applicant must meet experience requirements for a standard or Provisional certificate in OAR 340-049-0030, and
- (d) Any applicant receiving an experience or education waiver for admission to an examination must pay the post-examination application fee for evaluation of certificate qualification as shown in OAR 340-049-0065(1) at the time of submitting proof of meeting education or experience qualifications, and
- (e) The Department will withhold certification from any applicant passing an examination until evidence of education or experience qualification is furnished. If any applicant fails to complete all requirements for certification within the allowed time period in this section, the Department will not consider the examination results for any purpose.
- (10) Examinations must consist of material in content and level appropriate to each certificate type and grade.
- (11) The Department or its designee will score all examinations and notify applicants of the results. Examinations will not be returned to the applicant.
- (512) A minimum score of 70 percent correct answers is required to satisfactorily pass an examination.
- (613) Any person who fails an examination may repeat such retake the examination at a later date upon submittal of a complete by submitting an application and for re-examination along with the proper examination fee: listed in OAR 340-049-0065(1) by the established deadline.
- (14) An applicant may not take the same certificate type and grade examination more than twice in a twelve-month period unless the applicant can demonstrate to the satisfaction of the Department specific education completed in the subject area of the examination.
- ~~(7) Examination shall consist of material in content and level appropriate to each classification and grade level.~~
- ~~(8) Examinations shall be administered by the Department or its designee, at places and times scheduled by the Department, with 60 days public notice of the schedule. A minimum of two examinations shall be scheduled per calendar year.~~
- ~~(9) The Department, at its discretion, may administer written or oral examinations at times other than those scheduled.~~
- (10) All examinations will be graded by the Department, or its designee, and the applicant shall be notified of grade attained and pass or fail. Examinations will not be returned to the applicant.
- Stat. Auth.: ORS 448.410, 468.020 & ORS 448.410(1)(d)468B.030
- Stats. Implemented: ORS 448.405 to 448.430 & 448.992410

Hist.: DEQ 4-1988(Temp), f. & cert. ef. 1-29-88; DEQ 23-1988, f. & cert. ef. 9-15-88; DEQ 29-1994, f. & cert. ef. 12-2-94

340-049-0060

Operator Certification and Operator Certification Program Support Fees

(1) Operator Certification Fees:

(a) All persons applying for wastewater system operator certification shall ~~must be subject~~ to pay the applicable fee(s) ~~schedule contained listed~~ in OAR 340-049-0065(1);

(2b) ~~Upon the Department receipt of an application and fee, the fee shall be non-refundable, unless no action has been taken on the application, the Department determines that no fee is required, or the Department determines the wrong application has been filed. All~~ applications for a new certificate or certificate at a higher grade, but excluding applications for reciprocity, require an examination and must be accompanied by a fee payment equal to the sum of the appropriate application fee and examination fee as shown in OAR 340-049-0065(1)(a) and (b);

(3c) ~~A~~ Reciprocity applicants found to be ineligible for a certificate by reciprocity, ~~and who~~ otherwise meets the education and experience qualifications listed in OAR 340-049-0030, may be scheduled for an initial certification examination in accordance with OAR 340-049-0055 without payment of an ~~additional~~ examination fee;

(4d) ~~An~~ Applicants found to be ineligible for admission to a certification examination at the requested grade level ~~sought, and who~~ otherwise meets the education and experience qualifications for certification at a lower grade level ~~as listed in OAR 340-049-0030, may be scheduled for an initial examination at the lower grade~~ without payment of an additional fee;

(5e) The Department will not process ~~incomplete~~ applications ~~and/or~~ applications not accompanied by appropriate fee(s) and attachments, including documentation for all claims of education, ~~will not be processed and will be returned to the applicant.~~

(2) Operator Certification Program Support Fees:

(a) Beginning with the operating year that starts on July 1, 2002 and ends on June 30, 2003, all owners of NPDES or WPCF permitted wastewater systems required to be supervised by operators certified in accordance with requirements in this Division must pay an annual Operator Certification Program Support Fee according to the fee schedule in OAR 340-049-0065(2). The fee will be based on the most current design ADWF for the wastewater treatment system as approved by the Department;

(b) The annual certification program support fee must be paid for each year a wastewater system is in operation. The operating year is defined as July 1 through June 30. A fee for any year during which the wastewater system is in operation is retroactive to July 1 of that operating year, and will be due only if the wastewater system is placed into operation on or before May 1 of that operating year.

(c) The Department will notify wastewater system owners of the fee amount owed and the date the fee must be paid. The notification will generally be given 60 days prior to the due date.

(d) The Director may alter the due date for the annual certification program fee upon receipt of a written request from a wastewater system owner demonstrating need. The Commission

may reduce or suspend the annual operator certification program support fee based on hardship.

(e) Any wastewater system owner who fails to pay the annual operator certification program support fee within 30 days of the due date will be assessed a late fee by the Department according to OAR 340-049-0065(2)(b), which will be due and payable immediately with the annual fee.

(63) All fees shall be made payable to the Oregon Department of Environmental Quality or Oregon DEQ.

(4) Fees will not be refundable unless:

(a) The Department has taken no action on a certification application;

(b) The Department determines the wrong application has been filed;

(c) The Department determines that no fee is required;

(d) An overpayment has been made.

Stat. Auth.: ~~ORS 448.410(1)(d), & 468.020 & ORS 448.410(1)(d)~~

Stats. Implemented: ~~ORS 448.405 to 448.430 & 448.992 410 & ORS 448.425~~

Hist.: ~~DEQ 4-1988(Temp), f. & cert. ef. 1-29-88; DEQ 23-1988, f. & cert. ef. 9-15-88; ; DEQ 29-1994, f. & cert. ef. 12-2-94~~

340-049-0065

Fee Schedules for Wastewater Treatment Works Systems Operator Certification and Operator Certification Program Support

(1) Fee Schedule Operator Certification Fee Schedule

(a) Application Fee:

(A) Professional Grade I or Grade I Provisional Treatment and/or Collection:

~~\$25.00~~ \$50; ~~(B) Grade I: \$25.00;~~

~~(C) Grade II Treatment or Collection: \$35.00~~ \$70;

~~(D) Grade III Treatment or Collection: \$45.00~~ \$90; and

~~(E) Grade IV Treatment or Collection: \$55.00~~ \$110.

(b) Examination Fee: - Treatment or Collection at any Grade: \$50

~~(A) Professional: \$35.00;~~

~~(B) Grade I: \$35.00;~~

~~(C) Grade II: \$45.00;~~

~~(D) Grade III: \$55.00;~~

~~(E) Grade IV: \$65.00.~~

(c) Re-Examination or Reschedule Examination Fee - Treatment or Collection at any Grade: \$50

~~(A) Professional: \$35.00;~~

~~(B) Grade I: \$35.00;~~

~~(C) Grade II: \$45.00;~~

~~(D) Grade III: \$55.00;~~

~~(E) Grade IV: \$65.00.~~

(d) Open Schedule Examination Fee: \$100

(e) Post-examination Application Fee: \$30

(df) Reciprocity Application Fee

- (A) Professional Grade I or Grade I Provisional – Treatment or Collection: ~~-\$60.00~~ \$100;
- (B) Grade I or Grade I Provisional – Treatment and Collection: ~~-\$60.00~~ \$150;
- (C) Grade II Treatment or Collection: ~~-\$80.00~~ \$120;
- (D) Grade III Treatment or Collection: ~~-\$100.00~~ \$140; and
- (E) Grade IV Treatment or Collection: ~~-\$120.00~~ \$160.

(eg) 2Two-Year Certificate Renewal Fee - One certificate or two: \$100

- (A) Professional: N/A;
- (B) Grade I: ~~\$60.00;~~
- (C) Grade II: ~~\$60.00;~~
- (D) Grade III: ~~\$80.00;~~
- (E) Grade IV: ~~\$80.00.~~

(fh) Certificate Reinstatement Fee - One certificate or two: \$75

- (A) Professional: N/A;
- (B) Grade I: ~~\$50.00;~~
- (C) Grade II: ~~\$50.00;~~
- (D) Grade III: ~~\$50.00;~~
- (E) Grade IV: ~~\$50.00.~~

(i) Certificate and Renewal Document Replacement: \$30

~~(2) All applications for a new certificate, including upgrade to a higher level, but excluding certification by reciprocity, require scheduling of an examination and shall be accompanied by fee payment equal to the sum of the appropriate application fee and examination fee as shown in subsection (1)(a) of this rule~~ (3) Grade I Conversion Fee \$20. Persons applying for a Grade I certificate who hold a Provisional certificate, or are recognized as an "Operator-In-Training", and who have met all minimum qualifications for Grade-I certification under OAR 340-049-0030(1)(a)(B) or 340-049-0030(1)(b)(B), must pay a conversion fee for issuance of a certificate;

~~(4) Combination Renewal for Grades I and/or II Only: \$90. Persons having more than 1 (one) certificate pertaining to wastewater systems (wastewater collection and wastewater treatment) at Grades I and/or II must pay the full renewal fee for one certificate at \$60 and a lesser fee for the additional certificate at \$30;~~

~~(5) A reinstatement fee is payable in addition to the renewal fee for a certificate if an operator allows his/her certificate to lapse (expire). Re-examination is required for a renewal application post-marked more than 180 days after the certificate lapses (OAR 340-049-0045(3)). A re-examination fee (if any) will be payable as shown in paragraph (1)(a)(C) of this rule;~~

~~(6) Certificate and Document Replacement – all grades: \$20. Requests for replacement of damaged, stolen, or otherwise lost certificate and renewal documents.~~

(2) Operator Certification Program Support Fee Schedule:

(a) Annual Operator Certification Program Support Fee - Wastewater Systems:

- (A) ADWF less than 0.075 MGD: \$50;
- (B) ADWF 0.075 to 0.499 MGD: \$60;
- (C) ADWF 0.500 to 0.999 MGD: \$120;
- (D) ADWF 1.0 to 1.999 MGD: \$225;
- (E) ADWF 2.0 to 4.999 MGD: \$525;
- (F) ADWF 5.0 to 9.999 MGD: \$1,150;
- (G) ADWF 10.0 to 19.999 MGD: \$2,250;

(H) ADWF 20.0 to 29.999 MGD: \$3,750;

(I) ADWF 30.0 to 39.999 MGD: \$5,250;

(J) ADWF 40.0 to 59.999 MGD: \$7,500;

(K) ADWF 60.0 to 79.999 MGD: \$10,500;

(L) ADWF 80.0 to 119.999 MGD: \$15,000; and

(M) ADWF 120.0 MGD or greater: \$21,000.

(b) Late Fee: \$50 or 10 percent of the appropriate annual operator certification program support fee in subsection (a) above, whichever is greater.

Stat. Auth.: ~~ORS 468.020 & ORS 448.410(1)(d) & 468.020~~

Stats. Implemented: ~~ORS 448.405 to 448.430 & 448.992 410 & ORS 448.425~~

Hist.: DEQ 23-1988, f. & cert. ef. 9-15-88; DEQ 29-1994, f. & cert. ef. 12-2-94; DEQ 30-1994(Temp), f. & cert. ef. 12-2-94

340-049-0070

Contracts for Part-Time Supervision

- (1) When a wastewater system owner enters into a contract for part-time supervision with a certified operator or entity employing a certified operator to comply with OAR 340-049-0015(3), the contract shall must include at least the following:
 - (a) The parties involved, including names, addresses and phone numbers of each, and;
 - (b) The name of each operator responsible for supervising the wastewater system; the operator's certification, class type, and grade and expiration date; of the operator(s) and the operator's address and phone number;
 - (bc) The specific starting date and expiration date of the contract;
 - (ed) The minimum number of visits to be made to the wastewater treatment works system(s) by the contract certified operator(s) responsible for supervising the supervisors system; and
 - (de) The duties and responsibilities of each party involved, including the certified operator(s).
- (2) The contract for supervision shall must be sufficient such that provide for a contracted certified operator shall to be available to respond on-site upon request of the wastewater system owner and to any other operator.
- (3) The Director may require the wastewater system owner to make changes to the contract if the wastewater treatment system is in violation of the conditions of the permit, NPDES or WPCF permit or water pollution control laws in ORS 468B.025.
- (4) The owner of the wastewater treatment works systems shall must maintain the contract on file for Department review.

Stat. Auth.: ~~ORS 183-448.410, 468.020 & 468B.030~~

Stats. Implemented: ~~ORS 448.410, ORS 448.415, ORS 448.420 & ORS 448.430~~

Hist.: DEQ 4-1988(Temp), f. & cert. ef. 1-29-88; DEQ 23-1988, f. & cert. ef. 9-15-88

340-049-0075

Variances

- (1) The Director may grant variances from requirements in this Division or for wastewater system owners when it is demonstrated to the satisfaction of the Department determines that strict compliance with the rules would be highly burdensome or impractical due to special conditions or causes, and when that the public or private interest in the granting of the variance is found by the Department to clearly outweighs the interest of in the application of uniform rules.

- (a) A wastewater system owner must request for a variance must be submitted in writing by the wastewater system owner required to comply with these rules and shall must include justification for the requested variance demonstrate that the requirements for a variance are satisfied;
- (b) The Department will evaluate and process the variance request shall be evaluated and processed by the Department as a permit action in accordance with OAR 340-045-0005, et seq. and OAR 340-014-0005, et seq. 0027(1)(a), as applicable;
- (c) The Director shall will notify the wastewater system owner of the decision to grant or deny a variance in accordance with applicable permit issuance procedures, set forth in OAR 340-045-0005, et seq., and OAR 340-014-0005, et seq.;
- (d) If the Director denies the variance, the system owner may request a contested case hearing before the Commission or its authorized representative. Such a request for hearing shall must be made in writing to the Director within 20 days of the date of mailing of the notification of the variance decision. Any hearing held shall will be conducted pursuant to the regulations of the Department.

Stat. Auth.: ORS 183448.410, 468.020 & 468B.030

Stats. Implemented: ORS 448.405 to 448.430 & 448.992 410 & ORS-468B.050

Hist.: DEQ 4-1988(Temp), f. & cert. ef. 1-29-88; DEQ 23-1988, f. & cert. ef. 9-15-88

340-049-0080

Refusal and Revocation of Certificate and Appeal Process

- (1) The Director may refuse to issue, renew or reinstate a certificate, or may suspend or revoke the certificate of any person in accordance with the procedures set forth in OAR 340-011-0097, et seq. Grounds for revocation of a certificate shall be on the following grounds:
 - (a) Obtaining or renewing a certificate by fraud, deceit, or misrepresentation; or
 - (b) Proven gross or repeated negligence, incompetence or misconduct in performance of duties as an operator or supervisor of a wastewater treatment system or wastewater collection system in Oregon or any other state or province; or
 - (c) Failure of the operator to comply with the lawful orders, rules or regulations of the Department; or
 - (d) Failure of the operator certified by reciprocity to comply with the lawful orders, rules or regulations of any other state, province, or certifying authority; or
 - (de) False or fraudulent reporting or record-keeping by the operator regarding the operation or supervision of the a wastewater treatment system or wastewater collection system in Oregon or any other state or province.
- (2) If the Director believes that good cause exists to refuses to issue, renew or reinstate, or suspends or revokes a person's certificate, the Director shall must give notice to the person of opportunity for a contested case hearing in accordance with OAR 340-011-01000097.
- (3) The Director, a After a period of twenty-four (24) months, the Director may reinstate the certificate of any person whose certificate has been revoked upon presentation of evidence satisfactory to the Director, which that warrants such reinstatement is warranted. The Director may require re-examination and submittal of fees as a condition of the certificate reinstatement.
- (4) This rule applies to any matter pending before the Department or Commission.

Stat. Auth.: ORS 183448.410, 468.020 & 468B.030

Stats. Implemented: ORS 448.405 to 448.430 & 448.992 410

Hist.: DEQ 4-1988(Temp), f. & cert. ef. 1-29-88; DEQ 23-1988, f. & cert. ef. 9-15-88

340-049-0082

Penalty Provisions

- (1) Any municipal or private wastewater system owner, ~~municipal or private~~, who knowingly and willfully violates any of the provisions of these rules, may be subject to:
- (a) Criminal penalties according to provisions ~~under of~~ ORS 448.992 or 448.415(2); and
 - (b) Civil penalties according to OAR Chapter 340, Division 12 for violations of ~~provisions of~~ NPDES or WPCF permits.
- (2) Any individual who knowingly and willfully violates any provision ~~of these rules in this~~ division may be subject to revocation of certification, and criminal penalties under ORS 448.992 or 448.415(2).

Stat. Auth.: ORS ~~183-448.410, 468.020 & 468B.030~~

Stats. Implemented: ORS 448.410, ~~ORS 448.415 & ORS 448.992~~

Hist.: DEQ 4-1988(Temp), f. & cert. ef. 1-29-88; DEQ 23-1988, f. & cert. ef. 9-15-88

340-049-0085

Advisory Committee

- (1) ~~By October 31, 1988, the~~ Department ~~shall~~ will ~~establish~~ maintain an Advisory Committee to:
- (a) Assist in developing examinations;
 - (b) Evaluate the effectiveness of the program; and
 - (c) Recommend needs of the program.
- (2) Advisory Committee meetings ~~shall~~ will be scheduled at least twice a year.
- (3) The composition of the Committee ~~shall~~ will include, at a minimum, representatives of operators, system owners, and the educational community.

Stat. Auth.: ORS ~~183-448.410, 468.020 & 468B.030~~

Stats. Implemented: ORS ~~448.407 & ORS 448.405 to 448.430 & 448.992 410~~

Hist.: DEQ 4-1988(Temp), f. & cert. ef. 1-29-88; DEQ 23-1988, f. & cert. ef. 9-15-88

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Attachment B

Public Input and Department's Response

State of Oregon

Department of Environmental Quality

Memorandum

To: Mike Llewelyn
Water Quality Division Administrator

Date: June 26, 2002

From: Steve Desmond through Ed Woods
Land Application and Licensing, Water Quality Division

Subject: Summary of Comments and Response to Comments received for proposal to Amend Rules to Revise Fees and Requirements for Wastewater System Operator Certification

***Overview of
comment
period and
public
hearings***

The Department opened public comment on its proposal to Amend Rules to Revise Fees and Requirements for Wastewater System Operator Certification from May 20, 2002, to June 19, 2002. A public hearing was held in Portland on June 17, 2002. Three people submitted written comment during the comment period and one person attended the hearing but did not provide oral or written comment.

***Process of
reviewing
comments and
providing
responses***

Comments are summarized in categories and responses provided below. To focus on the comment rather than who made it, numbers are cited in the summaries that reference the people who provided comment.

***List of
Commenters***

The list of people providing comment and their corresponding reference numbers follow at the end of this memo.

Comment A:

Opposed to funding the education of certified operators

Comment: One commenter (3) assumed and opposed the Department's funding of the education of certified operators. This commenter stated it was the certified operator's responsibility to present satisfactory credentials, and that education of operators should be privatized, not provided by the Department.

Response: The Department agrees that it is the responsibility of each individual operator to obtain any required education, including continuing education, to maintain and strengthen knowledge and skills in wastewater technology. The Department does not fund the education of operators and the proposed rules do not provide any specific funding for education or training, nor do they increase existing education requirements for certified operators.

Except for limited technical assistance for compliance with environmental and certification regulations, the Department does not provide operator education or training in Oregon. Wastewater operator training in Oregon is provided by a number of non-profit associations, community colleges, private (for-profit) trainers, and nationally-funded technical assistance programs.

No changes were made to the proposed rules in response to this comment.

Comment B:

No confidence that DEQ enforces rules for operator certification

Comment: Based on her experience, one commenter (3) has no confidence that the Department enforces the rules for certification.

Response: The Department agrees that the public and system owners and operators expect compliance with operator certification requirements. The Department believes that monitoring for and compliance with requirements that systems be supervised by certified operators is good. The lack of sufficient funding has at times reduced the program's effectiveness in monitoring compliance with qualifications for certification and responding to complaints of operator misconduct, two key program areas. The proposed fees will provide the stable revenue base to support these compliance and enforcement activities.

No changes were made to the proposed rules in response to this comment.

Comment C:

Not in favor of new tax structure

Comment: As a small business owner required to hire certified operators, one commenter (3) opposed a new tax structure that will arbitrarily and unpredictably escalate. She believes certified operators as professionals, not the system owners, should be responsible for paying all the costs associated with certification and the certification program.

Response: The Department does not believe the certification program fees or

costs will escalate arbitrarily and unpredictably. The proposed fees are designed to recover the Department's costs for operating the certification program, as required by statute.

Certification program costs and revenue are reasonably predictable. Costs are tied to the number of examinations, examination development, number of operators, number of wastewater systems, compliance and enforcement activities, and staff salaries and related costs. Program revenue is derived from the number of operator applications, including examinations and certificate renewals, and as proposed, the number and size of wastewater systems. It is important to note that as Oregon's population has grown, for several years the number of certified operators and wastewater systems has remained fairly static.

The commenter is a small business owner with a very small flow wastewater system with a design capacity less than 75,000 gallons per day average flow. The proposed annual fee for this size category is \$50 per year. Should the facility undergo design expansion to between 75,000 and 500,000 gallons per day, the fee would increase to \$60 per year, a \$10 increase.

Since both operators and system owners benefit by the certification program, the fees are structured to derive revenue equally from certified operators and the system owners (based on size of the system). If operator fees alone covered the costs of the program, operator certification fees would more than double. The Department believes that many of the operators who now certify voluntarily (e.g., unemployed or not system supervisors) would drop their certification and reduce the pool of qualified candidates from which system owners and managers hire. The resulting costs to small business for contract operator services could escalate substantially.

No changes were made to the proposed rules in response to this comment.

Comment D:

**Opposed to
annual renewal
of certificates**

Comment: One commenter (1) mistakenly believed the Department was proposing a permanent change from a two-year to an annual certificate renewal and opposed the change because costs to the program would increase. This person favored retaining two-year, or longer, renewal periods.

Response: The Department has retained the two-year period for certificate renewals. The proposed **annual** fees are for program support to be paid by system owners.

The proposed rules include one exception to two-year certificate renewals that will allow the Department to stagger the terms of operator certificate renewals to help balance staff workload and revenue flows. The Department will renew operator certificates expiring in June 2003 for renewal terms of six,

twelve or eighteen months and prorate the renewal fees and continuing education requirements accordingly. **All subsequent renewals will be for two-year terms.** The adjustment will affect about 70% of the operators whose certificates expire in June 2003. This will be a one-time only adjustment. The Department will inform the affected certificate operators as early as possible through operator organizations and in cover letters for renewal applications.

No changes were made to the proposed rules in response to this comment.

Comment E:

Expand college or university education option for Grade I certificate

Comment: One commenter (2) recommended the Department add language to allow acceptable college or university education equivalent to an Associate of Science degree in water or wastewater technology as another option for satisfying six months of the one year experience required for standard Grade I certification in treatment or collection system operation.

Response: The Department changed the proposed rules to adopt this recommendation, which is consistent with the intent to allow professional and technical educational to substitute for work experience.

Comment F:

Improve system classification format and update technology criteria

Comment: A commenter (2) suggested improvement to the format and technology criteria for system classification.

Response: The Department changed the proposed rules to incorporate these suggestions, which are in keeping with intent of the classification system.

List of Commenters

Ref #	Last Name	First Name	Organization	Address	City	St.
1	Unknown	Mike	Operator	Unknown	Unknown	OR
2	Lewis	John	Clackamas Community College	19600 S. Mollala Avenue	Oregon City	OR
3	Bergquist	Donna	Small business owner with a NPDES permitted wastewater system	Callahan's Lodge	Ashland	OR

Attachment C
Presiding Officer's Report on Public Hearings

State of Oregon

Department of Environmental Quality

Memorandum

To: Environmental Quality Commission Date: June 18, 2002

From: Steve Desmond, Presiding Officer, Water Quality Division

Subject: Presiding Officer's Report for Rulemaking Hearing on June 17, 2002

Title of Proposal: Proposal to Amend Rules to Revise Fees and Requirements for Wastewater System Operator Certification

Overview of Public Hearing Date, Time, and Location

Date and Time	June 17, 2002, at 10 a.m.
Location	DEQ Headquarters Room 3A 811 SW Sixth Avenue Portland, OR 97205

Summary of Public Hearing

Portland Hearing

The rulemaking hearing was convened at 10:07 a.m. and closed at 10:42. One person attended the hearing, Dan Clark, representing the City of Portland Bureau of Environmental Services and the Oregon Association of Clean Water Agencies (ACWA). No oral or written comment was given.

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Attachment D
State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal for
Amendment of OAR 340-049 to Revise Fees and Requirements for
Wastewater System Operator Certification

**Questions to be Answered to Reveal
Potential Justification for Differing from Federal
Requirements**

(Revised July 29, 2002)

- 1. Are there federal requirements that are applicable to this situation? If so, exactly what are they?**

No federal requirements are applicable. There is no federal mandate for the Operator Certification Program.

- 2. Are the applicable federal requirements performance based, technology based, or both with the most stringent controlling?**

Not Applicable

- 3. Do the applicable federal requirements specifically address the issues that are of concern in Oregon? Was data or information that would reasonably reflect Oregon's concern and situation considered in the federal process that established the federal requirements?**

Not Applicable

- 4. Will the proposed requirement improve the ability of the regulated community to comply in a more cost effective way by clarifying confusing or potentially conflicting requirements (within or cross-media), increasing certainty, or preventing or reducing the need for costly retrofit to meet more stringent requirements later?**

Yes, some rule amendments clarify intent and administrative procedures. The operator certification program provides a cost-effective service to regulated domestic wastewater systems, collection and treatment. The program establishes minimum qualifications and standards for operators and certifies a pool of operators who are available to wastewater system owners.

5. Is there a timing issue which might justify changing the time frame for implementation of federal requirements?

Not applicable

6. Will the proposed requirement assist in establishing and maintaining a reasonable margin for accommodation of uncertainty and future growth?

Not applicable

7. Does the proposed requirement establish or maintain reasonable equity in the requirements for various sources? (level the playing field)

The proposed rules establish the concept of shared financial support for the program for certified operators, their employers, and the public.

8. Would others face increased costs if a more stringent rule is not enacted?

No

9. Does the proposed requirement include procedural requirements, reporting or monitoring requirements that are different from applicable federal requirements? If so, Why? What is the "compelling reason" for different procedural, reporting or monitoring requirements?

No applicable federal requirements

10. Is demonstrated technology available to comply with the proposed requirement?

Not applicable

11. Will the proposed requirement contribute to the prevention of pollution or address a potential problem and represent a more cost-effective environmental gain?

Yes. Certified operators should improve the operation of the wastewater collection and treatment systems, maximize the efficiency of the systems, and help prevent releases of pollution.

Attachment E
State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal For
Amendment of OAR 340-049 to Revise Fees and Requirements for
Wastewater System Operator Certification

Fiscal and Economic Impact Statement

(Revised July 15, 2002)

Introduction

The Department is proposing to fund the operator certification program (program) on a fully fee-supported basis by increasing most existing fees charged to persons applying for and renewing certification in domestic wastewater system (system) operation, and establishing a program support fee to be paid annually by owners of systems required to have certified operators.

Historically, funding for the program has been split between fees paid by individuals for operator certification and State General Fund, of which the latter is no longer available. Once fully implemented, the proposed fees will generate sufficient revenue to keep the program operating at its current staffing level.

The Department is also proposing to clarify and establish in rule past practice and policy affecting system owners, certified operator personnel and persons seeking to qualify for operator certification. Many of the proposed revisions will help improve the certification processes and compliance for operators and system owners, increase the overall readability and organization of the existing rule requirements, and help with efficiencies, including balancing staff workload.

Proposed rule changes include the following:

- Clarify exemption of very small subsurface sewage disposal systems from certification requirements.
- Clarify that based on operational complexity, the Department may place certification requirements on NPDES and WPCF permitted domestic wastewater systems utilizing subsurface sewage disposal with an average dry weather design flow greater than 2,500 gallons per day.
- Establish a procedure for a conditional time extension for strict compliance when a system's certified operator position is unexpectedly vacated.
- Establish a six-month operator experience substitution for persons completing an Associate of Science Degree in water quality technology or equivalent education.
- Expand the amount of related field experience that a person may use to qualify for operator certification.
- Establish a procedure to allow admittance to an examination for persons in the process of completing experience or education requirements.
- Lengthen the reinstatement period for expired operator certificates from 180 days to one year.

The following table shows the change in certification fees for operators affected by the proposal:

Application Fee - New Certificate	Current	Proposed	Change (approx.)
Grade I or Grade I Provisional;			
Treatment <u>or</u> Collection	\$ 25	\$ 50	+ 100%
Treatment <u>and</u> Collection	\$ 25	\$ 50	+ 100%
Grade II Treatment <u>or</u> Collection	\$ 35	\$ 70	+ 100%
Grade III Treatment <u>or</u> Collection	\$ 45	\$ 90	+ 100%
Grade IV Treatment <u>or</u> Collection	\$ 55	\$110	+ 100%

Examination, Re-examination or Reschedule of an Exam Fee	Current	Proposed	Change (approx.)
Grade I or Grade I Provisional;			
Treatment <u>or</u> Collection	\$ 35	\$ 50	+ 43%
Treatment <u>and</u> Collection	\$ 70	\$100	+ 43%
Grade II Treatment <u>or</u> Collection	\$ 45	\$ 50	+ 11%
Grade III Treatment <u>or</u> Collection	\$ 55	\$ 50	- 09%
Grade IV Treatment <u>or</u> Collection	\$ 65	\$ 50	- 23%

Two-Year Certificate Renewal Fee	Current	Proposed	Change (approx.)
Grade I or II (single)	\$ 60	\$100	+ 67%
Grade III or IV (single)	\$ 80	\$100	+ 25%
Combined I or II (two)	\$ 90	\$100	+ 11%
Combined I or II <u>and</u> III or IV (two)	\$140	\$100	- 29%
Combined III or IV (two)	\$160	\$100	- 38%

Certificate by Reciprocity Application Fee	Current	Proposed	Change (approx.)
Grade I or Grade I Provisional;			
Treatment <u>or</u> Collection	\$ 60	\$100	+ 67%
Treatment <u>and</u> Collection	\$ 95	\$150	+ 58%
Grade II Treatment <u>or</u> Collection	\$ 80	\$120	+ 50%
Grade III Treatment <u>or</u> Collection	\$100	\$140	+ 40%
Grade IV Treatment <u>or</u> Collection	\$120	\$160	+ 33%

Other Certification Fees	Current	Proposed	Change (approx.)
Open Schedule Examination Fee	\$ 0	\$100	New
Post-Exam Application Fee	\$ 20	\$ 30	+ 50%
Certificate Reinstatement Fee			
One or Two Certificates	\$ 50	\$ 75	+ 50%
Certificate and Renewal Document Replacement Fee	\$ 20	\$ 30	+ 50%

The following table shows the proposed annual operator certification program support fees that would be assessed to owners of NPDES and WPCF permitted wastewater systems:

Operator Certification Program Support Fees

Wastewater System Average Dry Weather Flow Capacity in Million Gallons per Day (MGD)	Annual Fee
Less than 0.075 MGD	\$50
0.075 to 0.499 MGD	\$60
0.500 to 0.999 MGD	\$120
1.0 to 1.999 MGD	\$225
2.0 to 4.999 MGD	\$525
5.0 to 9.999 MGD	\$1,150
10.0 to 19.999 MGD	\$2,250
20.0 to 29.999 MGD	\$3,750
30.0 to 39.999 MGD	\$5,250
40.0 to 59.999 MGD	\$7,500
60.0 to 79.999 MGD	\$10,500
80.0 to 119.999 MGD	\$15,000
120.0 MGD or greater	\$21,000

Late Fee: \$50 or 10% of the appropriate annual operator certification program support fee above, whichever is greater.

Individual Operators

Individuals are solely responsible for obtaining and maintaining appropriate certificates and required continuing education for certificate renewal. About 70% of employers, largely wastewater system owners, currently pay or reimburse operators for certification-related costs.

To minimize cost impacts to entry level operators, operator trainees, students, and interns, the Department proposes to retain a single application and fee for dual (two) Grade I certification in treatment and collection system operation. Previously "tiered" or sliding scale fees for examinations and certificate renewals are now the same fee across all certificate types and grades where costs to the program are fairly equal. This will lower fees for some operator examinations and for renewal of two certificates (treatment and collection) at Grade III or IV.

General Public

The fees may indirectly impact the general public as system owners may pass along increased costs to ratepayers. The Department believes that the goals of the certification program promote more effective and efficient system operation and maintenance, which has a significant potential for reduction in costs to system customers.

The following will help illustrate potential added costs for the annual fee to support certification on a ratepayer or household basis:

The median size domestic wastewater system in Oregon has a design average dry weather flow (ADWF) of 0.15 MGD and serves a community with about 1500 persons or 600 households. The owner of this system would pay an annual program support fee of \$60. Excluding any contribution by commercial or industrial ratepayers, the cost per household would be about 10 cents annually.

Since most ratepayers or consumers already indirectly pay operators for the cost of certification, there should not be a noticeable impact on them.

System Owners – Local, State, Federal Government and Private Entities

Domestic wastewater treatment systems operate under NPDES or WPCF permits issued by the Department and are typically owned by local, state and federal governments, but include some privately owned systems (about 21%). The owners of these systems will be affected by the new annual certification program support fee under the restructured fee schedule. All fees are dedicated to pay the Department's cost to administer the program (ORS 448.425). Currently most system owners pay the cost of certification for their operators.

The annual fee for wastewater treatment system owners is based on size; smaller systems pay a smaller fee than larger systems. The Department used wastewater treatment design ADWF capacity values for 327 systems to identify 13 size categories for fees, with a \$50 minimum fee. The smallest systems, those in the category for ADWF less than 0.075 MGD (127 or 39%), will pay the minimum fee of \$50. The larger systems will pay an annual fee for the appropriate size category. These costs for the larger systems are insignificant compared to the overall costs of staffing and maintaining the system.

The proposed fees may indirectly impact the owners of at least 59 upstream or "satellite" wastewater collection systems as the wastewater treatment system owners may pass costs along to them. These satellite wastewater collection systems are also required to have certified operators and each system's flow is already a part of the treatment plant ADWF design capacity.

Small Business

The Department estimates the proposed fees will directly impact about 67 small businesses with wastewater systems that have an ADWF capacity of from 0.002 MGD to 0.5 MGD. These small businesses would pay between \$50 and \$60 annually to support the certification program, with one business paying \$120. Other unknown numbers of small businesses may be indirectly impacted as wastewater system ratepayers. As with the general public, the Department believes that the certification program promotes more effective and efficient system operation and maintenance, which has a significant potential to reduce direct or indirect costs to small business.

Large Business

The proposed fees will directly impact about 10 large businesses as owners of regulated wastewater systems. Unknown others may be indirectly impacted if system owners pass costs to

system users. Of these 10 system owners, ADWF capacity ranges between 0.10 MGD to 1.5 MGD, and would pay between the minimum of \$50 to a high of \$225 annually to support the certification program. As with the general public and small business, the Department believes that the goals of the certification program promote more effective and efficient system operation and maintenance which has a significant potential for reduction in costs to large business as a wastewater system owner or ratepayer.

State Agencies

Other state agencies will be affected to the same extent as large and small businesses for state owned wastewater systems where the agency pays an annual certification program support fee and chooses to pay the costs of certification of its employees or contractors.

The revenue to be generated by the proposed fees will not increase the size of the program; it is simply a replacement of General Fund with other fund revenues. The Department anticipates that the proposed fee schedule will generate revenues of about \$338,500 for the 2001-2003 biennium and \$385,000 for the 2003-2005 biennium. The proposed fees will not result in additional revenue beyond what is needed to maintain existing and necessary certification program functions.

The Department proposes to maintain a staffing level to provide as close to one full time equivalent (FTE) staff person per each 1,000 active certificates in the program. Presently there are 2,210 active certificates with a level of staffing at 2.0 FTE. This is consistent with model certification program standards as established by the Association of Boards of Certification (ABC), a professional association of environmental control certifying authorities.

As the program has matured, the number of active certificates has remained fairly static (no growth), so there should be no change in the present level of staffing at 2.0 FTE. If the fees proposed prove adequate to cover the costs of the program as estimated, any increased growth should result in sufficient fees to cover any corresponding increase in staff effort.

Assumptions

It is assumed that the level of certification activity in the current and next biennium will remain static and equal the average activity of the last biennium. Should the activity be greater than expected, the proposed fee schedules should generate sufficient revenue to maintain a corresponding level of staff effort.

It is further assumed that the Department will continue a commitment to a base level of supplemental funds sufficient to cover costs to the program for incidental permitting and permittee compliance costs and that regional permit compliance activity with respect to certification will be supported by permit compliance fees already paid by system owners.

Housing Cost Impact Statement

The Department has determined that this proposed rulemaking will have no effect on the cost of development of a 6,000 square foot parcel and the construction of a 1,200 square foot detached single family dwelling on that parcel, except for the property's share of costs passed through by a wastewater system owner.

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Attachment F
State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

**Rulemaking Proposal for
Amendments to OAR 340-049 to Revise Fees and Requirements for
Wastewater System Operator Certification**

Land Use Evaluation Statement

(Revised July 29, 2002)

1. Explain the purpose of the proposed rules.

To strengthen the operator certification program, this proposal would increase most fees for renewal of certificates and examinations, increase all application fees for new certificates, establish new fees for wastewater system owners required to employ certified operators, streamline and clarify the certification process, and allow the certification workload to be balanced over a two-year period.

2. Do the proposed rules affect existing rules, programs or activities that are considered land use programs in the DEQ State Agency Coordination (SAC) Program?

Yes ___ No X

a. If yes, identify existing program/rule/activity:

b. If yes, do the existing statewide goal compliance and local plan compatibility procedures adequately cover the proposed rules?

Yes ___ No ___ (if no, explain):

c. If no, apply the following criteria to the proposed rules:

In the space below, state if the proposed rules are considered programs affecting land use. State the criteria and reasons for the determination.

The proposed rules affect only the fees and administrative procedures for certification of domestic wastewater system operators. The operator certification program works in conjunction with the Department's programs regulating wastewater through NPDES and WPCF permits and facility plan review and approval. These programs are considered land use programs.

No new procedures will be used since land use compliance and compatibility are reviewed under procedures in place for NPDES and WPCF permit approval, and wastewater system and facility plan review. Land Use Compatibility Statements (LUCS) are required under the permit and facility plan review programs. None are required for the Operator Certification Program.

- 3. If the proposed rules have been determined a land use program under 2. above, but are not subject to existing land use compliance and compatibility procedures, explain the new procedures the Department will use to ensure compliance and compatibility.**

N/A

Water Quality
Division

[signed by Roberta Young]
Intergovernmental Coordinator

05/14/02
Date

Attachment G

Operator Certification Fee Increase Comparison Tables

The following table shows the change in certification fees for operators affected by the proposal:

Application Fee – New Certificate	Current Fee	Proposed Change		
		Proposed	% Increase	Amt. of Increase
Grade I or Grade I Provisional; Treatment or Collection	\$25	\$50	100%	\$25
Grade I or Grade I Provisional; Treatment and Collection	\$25	\$50	100%	\$25
Grade II Treatment or Collection	\$35	\$70	100%	\$35
Grade III Treatment or Collection	\$45	\$90	100%	\$45
Grade IV Treatment or Collection	\$55	\$110	100%	\$55

Examination, Re-examination, or Reschedule of Exam Fee	Current Fee	Proposed Change		
		Proposed	% Change (approx.)	Amt. of Change
Grade I or Grade I Provisional; Treatment or Collection	\$35	\$50	+43%	+\$15
Grade I or Grade I Provisional; Treatment and Collection	\$70	\$100	+43%	+\$30
Grade II Treatment or Collection	\$45	\$50	+11%	+\$5
Grade III Treatment or Collection	\$55	\$50	-09%	-\$5
Grade IV Treatment or Collection	\$65	\$50	-23%	-\$15

Two-Year Certificate Renewal Fee	Current Fee	Proposed Change		
		Proposed Fee	% Change (approx.)	Amt. of Change
Grade I or Grade II (single)	\$60	\$100	+67%	+\$40
Grade III or IV (single)	\$80	\$100	+25%	+\$20
Combined I or II (two)	\$90	\$100	+11%	+\$10
Combined I or II and III or IV (two)	\$140	\$100	-29%	-\$40
Combined III or IV (two)	\$160	\$100	-38%	-\$60

Certificate by Reciprocity Application Fee	Current Fee	Proposed Change		
		Proposed Fee	% Change (approx.)	Amt. of Change
Grade I or Grade I Provisional; Treatment or Collection	\$60	\$100	+67%	+\$40
Grade I or Grade I Provisional; Treatment and Collection	\$95	\$150	+58%	+\$55
Grade II Treatment or Collection	\$80	\$120	+50%	+\$40
Grade III Treatment or Collection	\$100	\$140	+40%	+\$40
Grade IV Treatment or Collection	\$120	\$160	+33%	+\$40

Other Certification Fees	Current Fee	Proposed Change		
		Proposed Fee	% Change (approx.)	Amt. of Change
Open Schedule Examination Fee	\$0	\$100	N/A	N/A
Post-Exam Application Fee	\$20	\$30	+50%	+\$10
Certificate Reinstate Fee One or Two Certificates	\$50	\$75	+50%	+\$25
Certificate and Renewal Document Replacement Fee	\$20	\$30	-50%	-\$10

The following table shows the proposed annual operator certification program support fees that would be assessed to owners of NPDES and WPCF permitted wastewater systems:

Operator Certification Program Support Fees

Wastewater System Average Dry Weather Flow CAPACITY IN MILLION GALLONS PER DAY (MGD)	Annual Fee
< 0.075 MGD	\$50
0.075 – 0.4999 MGD	\$60
0.500 – 0.999 MGD	\$120
1.0 – 1.999 MGD	\$225
2.0 – 4.999 MGD	\$525
5.0 – 9.999 MGD	\$1,150
10.0 – 19.999 MGD	\$2,250
20.0 – 29.999 MGD	\$3,750
30.0 – 39.999 MGD	\$5,250
40.0 – 59.999 MGD	\$7,500
60.0 – 79.999 MGD	\$10,500
80.0 – 119.999 MGD	\$15,000
120.0 MGD or greater	\$21,000

Late Fee: \$50 or 10% of the appropriate annual operator certification program support fee above, whichever is greater.

Attachment H
Wastewater System Operator Certification
Advisory Committee Membership

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State of Oregon
Department of Environmental Quality

Memorandum

Date: September 10, 2002
To: Environmental Quality Commission
From: Stephanie Hallock, Director *S. Hallock*
Subject: Agenda Item C, Rule Adoption: Renewal of NPDES 300-J and NPDES 400-J
General Permits
October 3-4, 2002 EQC Meeting

Department Recommendation The Department recommends the Commission adopt the proposed rule amendments to modify and renew the general permits for wastewater discharges from fish hatcheries and log ponds as presented in Attachment A.

Need for Rulemaking These permits expired on July 31, 2001, but remain in effect for permittees that have submitted renewal applications. This rulemaking is needed to renew the permits for five-year terms and revise permit conditions.

Effect of Rule The proposed revisions to OAR 340-045-0033, Regulations Pertaining to General Permits (Attachment A), will modify and renew:

- National Pollutant Discharge Elimination System (NPDES) General Permit 300-J, which covers wastewater discharges from fish hatcheries, and
- NPDES General Permit 400-J, which covers wastewater discharges from log pond operations that do not receive domestic sewage or process water.

Forty four facilities are currently assigned to the fish hatchery general permit and thirty facilities are assigned to the log pond general permit. The proposed amendments revise these general permits (Attachment B) and allow the Department to assign existing permittees and new sources to the renewed permits.

Commission Authority The Commission has authority to take this action under ORS 468.020, 468B.020, and 468B.035. These rules implement ORS 468.065, 468B.015, 468B.035, and 468B.050.

Stakeholder Involvement The Department provided pre-public notice draft permits to permitted sources and considered their comments in developing the proposed permits. Department staff conducted a formal public notice and hearing process. The Department did not use an advisory committee for this rulemaking because both of these permits have been active for several permit cycles and the reissuance process did

not warrant using an advisory committee.

Public Comment A public comment period extended from April 15, 2002 to May 28, 2002 and included public hearings in Roseburg, Bend, and Portland. Three people attended the public hearings and one person provided oral comments. Two people submitted written comments. Attachments C and D summarize the public input.

Key Issues Commenters questioned whether the Department has sufficient information on the quality of wastewater discharged from fish hatcheries and log ponds to issue these general permits instead of individual or basin-specific permits. They were particularly concerned about potential effects on water quality limited streams. The Department believes the information available, while not extensive, does support renewal of the general permits as proposed. The proposed permits balance the need for additional information with environmental benefits and costs as described below.

NPDES 300-J Fish hatchery general permit:

The Department first issued this general permit in the early 1980's and renewed it most recently in 1996. Most of the permitted fish hatcheries are managed by Oregon Department of Fish and Wildlife; others are managed by federal, local, or private owners. The permit established effluent limits for total suspended solids and settleable solids that represent the best professional judgment for design and operating standards for treatment of wastewater from fish hatcheries. The Department considers effective solids removal, required to achieve the very low effluent limits, to be an adequate indicator for other parameters such as biochemical oxygen demand and nutrients.

Since 2000, a few individually-permitted fish hatcheries, similar to those covered by the general permit, have monitored for temperature, ammonia, carbonaceous biochemical oxygen demand (CBOD)¹, formaldehyde, and toxicity. The resulting data show these constituents are not released by hatcheries at levels that require additional effluent limits in the proposed general permits. Nevertheless, because the few hatcheries monitored may not be representative of all facilities under the general permit, the Department is proposing to add a temperature effluent limit designed to prevent incipient lethal impacts in the mixing zone and require the following monitoring and reporting to further assess water quality impacts from fish hatcheries:

¹ CBOD - A quantitative measure of the amount of dissolved oxygen required for the biological oxidation of carbon-containing compounds in a sample. The CBOD test suppresses the interference caused by the presence of nitrifying bacteria.

- monitoring of temperature, ammonia, and phosphorus;
- submittal of an updated temperature management plan that includes data analysis to determine compliance with standards and proposes temperature controls if needed; and
- reporting annual chemical usage.

The proposed hatchery permit also requires a pollution prevention plan for each facility that describes procedures for feeding fish; cleaning fish production and wastewater treatment units; and using, storing, and planning spill response for chemicals. The plan will require best management practices and personnel training, and must be updated to address compliance problems.

NPDES 400-J Log Pond general permit:

This permit was also first issued in the early 1980's and last renewed in 1996. All of the permittees are privately owned lumber processing businesses that use log ponds to store and maintain the quality of the logs. The log pond permit allows discharges from log ponds only during wet weather months when the amount of precipitation precludes holding wastewater without a discharge. The existing permit includes effluent limits for flow and pH.

Monitoring data collected under the current permit for total suspended solids (TSS), oil and grease, BOD, and minimum dilution requirements indicate these constituents are not causing or contributing to violations of water quality standards. The Department is proposing a benchmark for total suspended solids (TSS) to use in evaluating the effectiveness of effluent controls and management practices. The benchmark is a guideline concentration. If not achieved, the permittee must review its operations and implement additional controls or management practices to improve the quality of the discharge. The Department is also proposing to add a temperature effluent limit designed to prevent incipient lethal impacts in the mixing zone and require monitoring for the following parameters to further assess water quality impacts from log pond operations:

- temperature; and
- visual observations for debris, oil, and grease.

DEQ will also evaluate any impacts from fish hatcheries and log ponds at a watershed basin level during statewide ambient monitoring and total maximum daily load (TMDL) analyses. If DEQ determines a facility covered under these general permits is unable to meet any discharge limitations or is contributing to a stream that is water quality limited where a TMDL is not yet established, DEQ can require an individual or basin-specific permit. If discharges from any

facility under these permits are assigned waste load allocations under a TMDL, DEQ will include those additional requirements in individual permits, separate basin-specific general permits or another appropriate regulatory tool.

Next Steps

Beginning in November 2002, the Department's regional offices will mail renewed permits to facilities that have applied for coverage under one of these general permits. Existing staff in DEQ regional offices will implement the revised permits and provide technical assistance. DEQ staff have been actively involved during the permit revisions; no additional training on compliance evaluation is planned.

Attachments

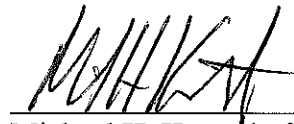
- A. Proposed Rule Revisions
- B. Proposed General Permits
- C. Public Input and Department's Response
- D. Presiding Officer's Report on Public Hearings
- E. Relationship to Federal Requirements
- F. Fiscal and Economic Impact Statement
- G. Land Use Evaluation Statement

Available Upon Request

- 1. Evaluation Reports for General Permits
- 2. List of Permit Applicants
- 3. Rule Implementation Plan
- 4. Legal Notice of Hearing
- 5. Cover Memorandum from Public Notice
- 6. Written Comment Received

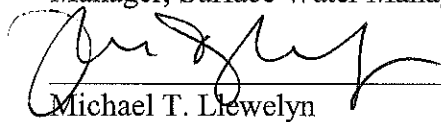
Approved:

Section:



Michael H. Korten
Manager, Surface Water Management

Division:



Michael T. Llewelyn
Administrator, Water Quality Division

Report Prepared By: James Cowan
Phone: (503) 229-5185

Attachment A

DIVISION 045 REGULATIONS PERTAINING TO NPDES AND WPCF PERMITS

340-045-0033

General Permits

(1) The Director may issue general permits for certain categories of minor discharge sources or minor activities where individual NPDES or WPCF permits are not necessary to adequately protect the environment. Before the Director can issue a general permit, the following conditions must be met:

(a) There must be several minor sources or activities that involve the same or substantially similar types of operations.

(b) The sources or activities must have the potential to discharge or dispose of the same or similar types of wastes.

(c) The general permit must require the same or similar monitoring requirements, effluent limitations and operating conditions for the categories.

(d) The category of sources or activities would be more appropriately controlled under a general permit than an individual permit.

(e) The Commission has adopted the general permit into rule by reference.

(2) General permits issued after the effective date of this rule will specify the following:

(a) The requirements to obtain coverage under a general permit, including application requirements and application submittal deadlines. The Department may determine that submittal of an application is not necessary after evaluating the type of discharge, potential for toxic and conventional pollutants in the discharge, expected discharge volume, availability of other means to identify dischargers, and estimated number of dischargers to be covered by the permit. The Department's evaluation must be provided in the public notice for the general permit.

(b) The process used by the Department to notify a person that coverage under a general permit has been obtained and the discharge or activity is authorized.

(3) Although general permits may include activities throughout the state, they may also be restricted to more limited geographical areas.

(4) Prior to issuing a general permit, the Department will follow the public notice and participation procedures outlined in OAR 340-045-0027, 340-045-0035(3), and ORS 183.325 to 183.410. In addition the Department will make a reasonable effort to mail notices of pending actions to those persons known by the Department who are likely to be covered by the general permit.

(5) Any person operating a discharge source or conducting an activity described in a general permit must apply for coverage under the general permit, unless the general permit does not require submission of an application pursuant to (2)(a) of this rule or the source or activity is specifically covered by an individual NPDES or WPCF permit. Any person seeking coverage under a general permit must submit an application as required under the terms of the applicable NPDES or WPCF general permit. If application requirements are not specified in the general permit, procedures in OAR 340-045-0030 or OAR 340-071-0162, whichever is applicable, must be followed. A person who fails to submit application in accordance with the terms of the general permit, OAR 340-045-0030 or OAR 340-071-0162, whichever is applicable, is not authorized to conduct the activity described in the permit.

(6) Any person required to have coverage under a general permit must pay permit fees as required in OAR 340-045-0070 to 340-045-0075 or OAR 340-071-0140 to obtain and maintain coverage under that permit.

(7) Any permittee covered by an individual NPDES or WPCF permit may request that the individual permit be canceled or allowed to expire, and that it be covered by a general permit if its discharge or activity may be covered by an existing general permit. As long as the permittee is covered by an individual NPDES or WPCF permit, the conditions and limitations of the individual permit govern, until such time as it is canceled or expires.

(8) Any person not wishing to be covered by a general permit may make application for an individual permit in accordance with OAR 340-045-0030 or OAR 340-071-0162, whichever is applicable.

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(9) The Director may revoke coverage and authorization under a general permit pursuant to OAR 340-045-0060 as it applies to any person and require such person to apply for and obtain an individual NPDES or WPCF permit. Any interested person may petition the Director to take action under this section. Cases where an individual permit may be required include the following:

- (a) The discharge or activity is a significant contributor of pollution or creates other environmental problems;
- (b) The permittee is not in compliance with the terms and conditions of the general permit, submitted false information, or is in violation of any applicable law;
- (c) A change occurs in the availability of demonstrated technology or practices for the control or abatement of pollutants being discharged;
- (d) For NPDES general permits, effluent limitation guidelines are promulgated for point sources covered by a general permit and the guidelines are not already in the general permit; or
- (e) Circumstances have changed so that the discharge or activity is no longer appropriately controlled under a general permit, or either a temporary or permanent reduction or elimination of the authorized discharge is necessary.

(10) The following general permits are adopted by reference in this rule and available for review at the Department:

- (a) NPDES 200-J, Filter backwash (issued August 29, 1997)
- (b) NPDES 300-J, Fish hatchery (issued October 3, 2002)
- (c) NPDES 400-J, Log pond (issued October 3, 2002)
- ~~(b)(d)~~ NPDES 500-J, Boiler blowdown (issued August 29, 1997)
- ~~(e)(e)~~ WPCF 600, Offstream placer mining (issued April 9, 1997)
- ~~(d)(f)~~ NPDES 700-J, Suction dredges (issued May 3, 1999)
- ~~(e)(g)~~ WPCF 800, Confined animal feeding operations (issued August 8, 1990)
- ~~(f)(h)~~ NPDES 900-J, Seafood processing (issued June 7, 1999)
- ~~(g)(i)~~ WPCF 1000, Gravel mining (issued July 26, 2002)
- ~~(h)(j)~~ NPDES 1200-A, Storm water runoff from sand, gravel & non-metallic quarrying & mining in Standard Industrial Classification (SIC) 14, asphalt mix batch plants, and concrete batch plants. Facilities may qualify for a conditional exclusion from the requirement to obtain a permit if there is no exposure of industrial activities and materials to storm water pursuant to 40 CFR §122.26(g); see permit for details. (issued July 26, 2002)
- ~~(i)(k)~~ NPDES 1200-C, Storm water runoff from construction activities, including clearing, grading, and excavation, and stockpiling that disturbs five or more acres, including activities that will disturb five or more acres over time as part of a larger common plan of development; effective December 1, 2002, construction activities that disturb one or more acre are covered (issued February 20, 2001)
- ~~(j)(l)~~ NPDES 1200-CA, Government agencies responsible for storm water runoff from construction activities that disturbs five or more acres; effective December 1, 2002, construction activities that disturb one or more acres are covered (issued February 20, 2001)
- ~~(k)(m)~~ NPDES 1200-COLS, Storm water runoff in the Columbia Slough watershed from industrial activities listed in 8(l) of this rule (issued December 22, 1999)
- ~~(l)(n)~~ NPDES 1200-Z, Storm water runoff from: Warehousing in SIC 4221-4225; Food processing in SIC 20; Landfills, land app. sites; Heavy industrial in SIC 28, 29, 30, 31, 32, 33 & steam electric power generating (includes coal/hogged fuel handling); Light mfg. in SIC 34, 35, 36, 37, 38 & 39 includes ship & boat building/repair; Printing in SIC 27; Textile & apparel mfg. in SIC 22 & 23; Transportation in SIC 40, 41, 42, 43, 44, 45 & 5171; Wood products mfg. in SIC 24 & 25; Metal scrap yards, battery reclaimers & auto salvage yards in SIC 5015 & 5093; Hazardous waste treatment, storage, & disposal facilities. Facilities may qualify for a conditional exclusion from the requirement to obtain a permit if there is no exposure of industrial activities and materials to storm water pursuant to 40 CFR §122.26(g); see permit for details. (issued July 26, 2002)
- ~~(m)(o)~~ NPDES 1300-J, Oily storm water runoff and oil/water separators (issued January 11, 2000)
- ~~(n)(p)~~ WPCF 1400-A, Seasonal food processing & wineries, less than 25,000 gallons/day (issued August 22, 2000)
- ~~(o)(q)~~ WPCF 1400-B, Other food processing, less than 25,000 gallons/day (issued August 22, 2000)

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~~(p)~~(r) NPDES 1500-A, Petroleum hydrocarbon cleanups discharged to surface waters (issued August 22, 2000)

~~(q)~~(s) WPCF 1500-B, Petroleum hydrocarbon cleanups (issued August 22, 2000)

~~(r)~~(t) NPDES 1700-A, Vehicle and equipment wash water discharged to surface waters (issued March 5, 1998)

~~(s)~~(u) WPCF 1700-B, Vehicle and equipment wash water (issued March 5, 1998)

~~(t)~~(v) NPDES 1900-J, Non-contact geothermal heat exchange (issued September 11, 1997)

Stat. Auth.: ORS 468.020, 468B.020 and 468B.035

Stats. Implemented: ORS 468.065, 468B.015, 468B.035, and 468B.050

Hist.: DEQ 28-1980, f. & ef. 10-27-80; DEQ 15-2000, f. & cert. ef. 10-11-2000

Agenda Item C, Rule Adoption: Renewal of NPDES 300-J and NPDES 400-J General Permits
October 3-4, 2002 EQC Meeting

Attachment B

Water Quality NPDES General Permits

**GENERAL PERMIT
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
WASTE DISCHARGE PERMIT**

Oregon Department of Environmental Quality
811 SW Sixth Avenue, Portland, OR 97204, (503) 229-6962
Issued pursuant to ORS 468B.050 and The Federal Clean Water Act

ISSUED TO:

All owners or operators of facilities discharging pollutants that are covered by this permit. The submittal of an approved application and payment of applicable fees are required.

SOURCES COVERED BY THIS PERMIT:

Treated discharges from aquatic animal production facilities which produce at least 20,000 pounds of fish per year, but have less than 300,000 pounds on hand at any time. Offsite discharge of water associated with the release of fish. Facilities which produce less than 20,000 pounds of fish per year and feed less than 5000 pounds of food during the month of maximum feeding or facilities that hold fish, including fish monitoring or fish acclimation, do not require a NPDES permit unless required by the Department on a case-by-case basis.

For a new or increased discharge from facilities on 303(d) water quality listed streams for temperature, the applicant or permittee shall follow provisions in Oregon Administrative Rule 340-041-0026.

Michael T. Llewelyn, Administrator
Water Quality Division

Issued:
Effective:

PERMITTED ACTIVITIES

Until this permit expires or is modified or revoked, the permittee is authorized to discharge to waters of the state adequately treated wastewaters only from the authorized discharge point or points established in Schedule A and only in conformance with all the requirements, limitations, and conditions set forth in the attached schedules as follows:

	<u>Page</u>
Summary of Application Requirements	2
Schedule A - Waste Discharge Limitations and Controls	3-4
Schedule B - Minimum Monitoring and Reporting Requirements	5-7
Schedule C - Compliance Conditions and Schedules	7-8
Schedule D - Special Conditions	8
Schedule E - Pretreatment Activities	N/A
Schedule F - General Conditions	9-15

Unless specifically authorized by this permit, by another NPDES or WPCF permit, or by Oregon Administrative Rule, any other direct or indirect discharge to waters of the state is prohibited, including discharges to an underground injection control system.

SUMMARY OF APPLICATION REQUIREMENTS FOR PERMIT COVERAGE

1. New Facilities Can Obtain Coverage By The Following Steps.
 - a. Notify the Department by submitting a completed application form requesting coverage under this permit at least 180 days prior to the planned activity that will result in the discharge to waters of the state.
 - b. Submit all required fees with the application.
 - c. Submit a Pollution Prevention Plan with the permit application (refer to 300-J permit, Schedule C).
 - d. The Department will review the application information and will either request additional information in writing or will notify the applicant by mail that it has received coverage and is authorized to operate under the conditions of this permit. If the applicant's operation cannot be approved for coverage under the general permit, the applicant may need to obtain an individual permit.

2. Existing Facilities Requiring Renewal Can Renew Coverage By The Following Steps.
 - a. Notify the Department by submitting a completed application form at least 180 days prior to permit expiration.
 - b. Submit all required fees with the application.
 - c. The Department will review the application for any substantial changes at the facility or any site-specific requirements such as waste load allocations that could affect coverage. The applicant will be notified if coverage cannot continue under the general permit in the event that the applicant may need to obtain an individual permit.
 - d. The existing permit will continue to be effective through administrative extension after the permit expiration date if the permittee submits a complete renewal application.
 - e. The Department will notify the applicant by mail that it has received coverage and is authorized to operate under the conditions of the new permit.

SCHEDULE A
WASTE DISCHARGE LIMITATIONS AND CONTROLS

1. Normal Operations: Discharges shall not exceed the following limitations.

Parameter	Monthly Average	Daily Maximum
TSS ¹	5 mg/l	10 mg/l
Settleable Solids	0.1 ml/l	--
Temperature	--	77° F
pH	Within the range of 6.0 - 9.0 S.U.	

2. Cleaning Operations: Discharges shall not exceed the following limitations.

Parameter	Daily Maximum
TSS ¹	15 mg/l
Settleable Solids	0.2 ml/l
Temperature	77° F
pH	Within the range of 6.0 - 9.0 S.U.

Notes:

1. When surface water is used as supply water, the influent total suspended solids (TSS) may be monitored on the day an effluent TSS sample has been collected and for up to two days prior. The maximum daily influent TSS value can be used to derive the net TSS effluent value.
3. Operating Requirements:
- a. Sand, silt, mud, solids, filter backwash, debris, or other pollutants deposited or removed in the aquatic animal production or treatment process shall be disposed of in a manner that prevents such materials from entering waters of the state.
 - b. Discharge of untreated waste from cleaning operations to waters of the state is prohibited.
 - c. Dead fish, fish eggs, or processing waste shall be disposed of in a manner that prevents such materials from entering the waters of the state.
4. Except as provided for in OAR 340-045-0080, no wastes shall be discharged and no activities shall be conducted which violate Water Quality Standards as adopted in OAR 340-041 except in the following defined mixing zone:
- The allowable mixing zone shall not exceed a maximum distance of 30 feet in the downstream direction from the point of discharge and shall not exceed half of the receiving stream width.
5. The effluent limitations and other conditions (Schedule B and C) in this permit related to temperature constitute the surface water temperature management plan (temperature management plan) required by OAR 340-041-0026(3)(a)(D) applicable to the permittee, unless otherwise notified in writing by the Department. Provided that the permittee complies with this temperature management plan, the permittee will be deemed to be in compliance with the state temperature water quality standard and not to be causing or contributing to a violation of the water quality standards for temperature. If a

TMDL analysis or other monitoring information indicates the discharge has potential to affect the receiving water that is water quality limited for temperature, the Department may require specific corrective actions and/or application for an individual or basin-specific permit.

6. Chemical Use:

- a. Unless approved in writing by the Department before use, permittee must use chemicals approved or allowed for hatchery use by the US Food and Drug Administration (USFDA) or the US Environmental Protection Agency (USEPA). USFDA approved chemicals include: Investigational New Animal Drugs (INADs), Low Regulatory Priority (LRP) listed drugs, Deferred Regulatory Status (DRS) drugs and veterinary Extra-Labeled drugs. The permittee shall follow the conditions detailed in a facility's INAD permit application, treatment restrictions for LRP and DRS drugs, product label instructions for environmental protection, and precautions on labels of chemicals that are Extra-labeled by prescription.

The current USFDA LRP drugs are: acetic acid, calcium chloride, calcium oxide, carbon dioxide gas, Fuller's Earth, Garlic (whole form), hydrogen peroxide, ice, magnesium sulfate, onion (whole form), papain, potassium chloride, povidone iodine, sodium bicarbonate, sodium chloride, sodium sulfite, urea and tannic acid. The DRS chemicals are potassium permanganate and copper sulfate.

All chemical use shall be reported on the chemical use log and included in the annual report. Permittee shall document the disposal of all spent chemical dip treatment solutions according to the procedure described in the permittee's Pollution Prevention Plan.

- b. When seeking Department approval of drugs and chemicals not approved or allowed by USFDA or USEPA, the permittee must show all of the following:
- i) The drug or disease control chemical used and/or method of its application could not have reasonably been anticipated;
 - ii) Written or facsimile notification is provided to the appropriate DEQ Regional Office 24 hours prior to administering the drug or disease control chemical and approval from the Department is received; and
 - iii) Adequate precautions and procedures are followed and documented to ensure that the quality of the receiving water is not impaired.
- c. The use of any chemical shall not violate any applicable water quality standard.

7. Biomass: Permittee's maximum monthly biomass shall not exceed _____ pounds for this facility. (If not specified, the facility shall not exceed 300,000 pounds.)
8. Off site discharge of water incidental to the release of healthy fish into waters of the state is permitted.
9. Water Quality Limited Streams - If Total Maximum Daily Loads are established and the discharge from a permitted source is determined to be a significant contributor for a stream that is water quality limited, coverage may be terminated and application for an individual permit or different general permit may be required that would include waste load allocations.

SCHEDULE B
MINIMUM MONITORING AND REPORTING REQUIREMENTS

1. Effluent Discharge Normal Operations:

Item or Parameter	Minimum Frequency	Type of Sample
Flow	Weekly ^a	Estimate
Total Suspended Solids	Weekly ^a	Composite ^b
Settleable Solids	Weekly ^a	Grab
pH	Quarterly ^a	Grab ^c
Total Phosphorus	Quarterly ^{a, d}	Grab
Ammonia-N	Quarterly ^{a, d}	Grab
Temperature	Monthly ^c	Measurement(s)

2. Effluent Discharge Cleaning Operations (monitoring to be conducted during active cleaning operations within the month of highest production during each calendar quarter; "per event" means any time cleaning operations occur during the quarter):

Parameter	Minimum Frequency	Type of Sample
Flow	Per Event ^a	Estimate
Total Suspended Solids	Per Event ^a	Composite ^b
Settleable Solids	Per Event ^a	Grab
Total Phosphorus	Per Event ^{a, d}	Grab
Ammonia-N	Per Event ^{a, d}	Grab
Temperature	Per Event ^e	Measurement(s)

3. Receiving Stream Monitoring:

Parameter	Minimum Frequency	Type of Sample
Temperature	Monthly ^f	Measurement(s)

4. Influent Supply Water (optional for net TSS compliance calculation; refer to Schedule A):

Parameter	Minimum Frequency	Type of Sample
TSS	Optional – Per Event	Composite ^g

Notes for Monitoring Requirements:

- a. During the month of highest production for each calendar quarter.
- b. A representative composite sample shall consist of at least 4 grab samples collected during daylight hours of a single day and composited for analysis. For a facility that has multiple outfalls, only one outfall is required to be sampled during normal operations and cleaning operations, provided the other outfalls all have substantially identical effluents.
- c. The following may be used for the measurement of pH: pH paper that has the capability of determining pH to one-tenths (0.1) standard units or a proper calibrated pH meter.

- d. Monitoring is required only during the first four quarters after the permit is assigned to the permittee.
- e. Effluent temperature monitoring must be conducted from April 1 through October 31. Effluent measurement shall be conducted at approximately the same time as the receiving stream temperature monitoring during the afternoon hours. For multiple outfalls, monitoring is required at only one outfall, provided that the outfalls have substantially identical effluents.
- f. Receiving stream temperature monitoring must be conducted from April 1 through October 31. Measurements must be collected at three distinct locations during the afternoon hours. Sample locations shall include a point 10 feet upstream from the intake structure, a point 10 feet above the outfall, and at a point 30 feet downstream from the outfall. For multiple outfalls, monitoring is required at only one outfall, provided that the outfalls have substantially identical effluents.
- g. A representative sample of the supply water shall be a daily composite sample (as defined in Note b).

5. Chemicals Record Keeping:

The permittee shall keep a written record on all chemicals used at the facility for three (3) years and these records shall be available for review upon request by the Department. These records shall include:

- a. Person(s) responsible for administering the chemicals.
- b. The trade name of the chemicals used.
- c. The date of application(s).
- d. The reason for chemical usage and method of application.
- e. The location (e.g., hatch house, raceway or pond) of chemical use, estimated or measured concentration of active ingredient in the hatchery or rearing facility effluent at the point of discharge to the receiving waters, and a comparison of the estimated effluent chemical concentration to the chemical label dilution requirement.
- f. The quantity, trade name, method of disposal, and location of any disposed spent chemical dip solutions.

6. Reporting Procedures and Schedules:

- a. Permittee shall collect and record the monitoring data according to the frequency in Schedule B. Permittee must submit the results to the Department on approved forms by the 15th of the month following the end of each quarter. Monitoring during cleaning operations shall be accomplished during active cleaning operations within the month of highest production during the calendar quarter.

If the facility did not discharge during any quarterly period, the Discharge Monitoring Report (DMR) must still be submitted. The DMR shall describe the status of operations (i.e., no discharge).

- b. Permittee shall submit a summary of chemical use annually or more often if requested by the Department. The annual report covers the previous calendar year and is due by February 15th. The annual summary report shall describe the monthly quantity of each chemical used, the reason for application, and the total annual quantity of each chemical used.

SCHEDULE C COMPLIANCE CONDITIONS AND SCHEDULES

1. Pollution Prevention Plan:
 - a. For an existing facility, **within one (1) year** after assignment of this permit, the permittee shall develop, implement, and submit a copy of the Pollution Prevention Plan (Plan) to the Department. The submittal of the Plan shall include a certification statement and signature by the hatchery manager or other responsible person stating that the permittee is employing all reasonable best management practices, the Plan is being implemented, the Plan will be evaluated if a compliance problem occurs, and updates to the Plan will occur as necessary.
 - b. For a new facility, the Plan shall be developed **prior** to starting operations and submitted with the application for permit assignment.
 - c. The permittee shall maintain a copy of the Plan at the facility for review by the Department. The permittee shall assure that appropriate staff are familiar with the Plan and have been adequately trained to follow the applicable procedures and practices. The permittee shall review the Plan following any significant discharge of pollutants and revise it as needed to comply with the permit limitations and conditions.
 - d. The content of the required Plan shall include, but not be limited to, the following:
 - (1) A flow diagram of the production operations, wastewater collection and treatment, and monitoring locations that are required in Schedule B.
 - (2) A description of how fish feeding will be conducted to minimize the discharge of unconsumed food.
 - (3) The frequency of pond and raceway cleaning and the procedures that will be used to determine when cleaning is necessary to prevent the discharge of accumulated to waters of the state.
 - (4) A description of how pond and raceway cleaning will be performed to reduce the disturbance and discharge of settled solids during cleaning events.
 - (5) A description of how grading, harvesting, fish release, and other activities within ponds or raceways will be conducted to minimize disturbance and discharge of accumulated solids.
 - (6) A description of how all chemicals will be used within the facility to ensure that the amounts and frequency of application are the minimum necessary for effective disease treatment and control. Include procedures that describe how the concentration of disease

control chemicals, drugs, and other chemicals in the facility's discharge will be minimized to the maximum extent practicable and comply with the chemical labeling for dilution requirements.

- (7) A description of how all chemicals will be stored and disposed.
- (8) A description of how solid and biological wastes will be collected, stored, and ultimately disposed. Wastes to be included are cleaning waste from production or treatment areas. The land application of solid waste shall be at appropriate agronomic rates.
- (9) Procedures to prevent spills, spill response procedures, and notification plan for any unplanned discharge of waste materials, oil, disease chemicals, and other hazardous materials.
- (10) Procedures to identify and prevent storm water pollution. The procedures shall consider management practices or treatment controls, materials exposure, and spill prevention to prevent discharge quality problems resulting from storm water runoff.
- (11) Provide an evaluation of the receiving stream water quality limited status and the parameter(s) of concern, and determine potential impacts to these parameters from the fish hatchery discharge and any additional measures needed to prevent the excessive discharge of pollutants.

2. Updated Temperature Management Plan:

- a. **Within three and a half (3.5) years** after permit issuance, the permittee shall submit a report that analyzes the data from the first three years of monitoring to determine compliance with the temperature standard and if necessary proposes control strategies. The report must include an evaluation of operational thermal load impacts outside the defined mixing zone. The report shall also describe existing and/or proposed temperature reduction control strategies to comply with the numeric water quality temperature standard (i.e., 64° F, 55° F, 50° F, or no measurable increase; applicable criteria for salmonid spawning, rearing, or threatened and endangered). The report will be considered an updated temperature management plan.
- b. At the time the temperature monitoring report is submitted the permittee may request a discontinuation of Schedule B temperature monitoring frequency if there is no reasonable potential to exceed applicable criteria.

SCHEDULE D
SPECIAL CONDITIONS

1. Any permittee not wishing to be covered or limited by this general permit may make application for an individual NPDES permit in accordance with NPDES procedures in OAR 340-045-0030.

SCHEDULE F
NPDES GENERAL CONDITIONS

SECTION A. STANDARD CONDITIONS

1. Duty to Comply
The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of Oregon Revised Statutes (ORS) 468B.025 and is grounds for enforcement action; for permit termination, suspension, or modification; or for denial of a permit renewal application.

2. Penalties for Water Pollution and Permit Condition Violations
Oregon Law (ORS 468.140) allows the Director to impose civil penalties up to \$10,000 per day for violation of a term, condition, or requirement of a permit.

Under ORS 468.943, unlawful water pollution, if committed by a person with criminal negligence, is punishable by a fine of up to \$25,000 or by imprisonment for not more than one year, or by both. Each day on which a violation occurs or continues is a separately punishable offense.

Under ORS 468.946, a person who knowingly discharges, places or causes to be placed any waste into the waters of the state or in a location where the waste is likely to escape into the waters of the state, is subject to a Class B felony punishable by a fine not to exceed \$200,000 and up to 10 years in prison.

3. Duty to Mitigate
The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. In addition, upon request of the Department, the permittee shall correct any adverse impact on the environment or human health resulting from noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

4. Duty to Reapply
If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply to have the permit renewed. The application shall be submitted at least 180 days before the expiration date of this permit.

The Director may grant permission to submit an application less than 180 days in advance but no later than the permit expiration date.

5. Permit Actions
This permit may be modified, suspended, revoked and reissued, or terminated for cause including, but not limited to, the following:
 - a. Violation of any term, condition, or requirement of this permit, a rule, or a statute;
 - b. Obtaining this permit by misrepresentation or failure to disclose fully all material facts; or
 - c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.
 - d. The permittee shall pay the fees required to be filed with this permit application and to be paid annually for permit compliance determination as outlined in the Oregon Administrative Rules, Chapter 340, Division 45.
The filing of a request by the permittee for a permit modification or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

6. Toxic Pollutants
The permittee shall comply with any applicable effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

7. Property Rights
The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.
8. Permit References
Except for effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants and standards for sewage sludge use or disposal established under Section 405(d) of the Clean Water Act, all rules and statutes referred to in this permit are those in effect on the date this permit is issued.

SECTION B. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. Proper Operation and Maintenance
The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls, and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.
2. Duty to Halt or Reduce Activity
For industrial or commercial facilities, upon reduction, loss, or failure of the treatment facility, the permittee shall, to the extent necessary to maintain compliance with its permit, control production or all discharges or both until the facility is restored or an alternative method of treatment is provided. This requirement applies, for example, when the primary source of power of the treatment facility fails or is reduced or lost. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
3. Bypass of Treatment Facilities
 - a. Definitions
 - (1) "Bypass" means intentional diversion of waste streams from any portion of the treatment facility. The term "bypass" does not include nonuse of singular or multiple units or processes of a treatment works when the nonuse is insignificant to the quality and/or quantity of the effluent produced by the treatment works. The term "bypass" does not apply if the diversion does not cause effluent limitations to be exceeded, provided the diversion is to allow essential maintenance to assure efficient operation.
 - (2) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities or treatment processes which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
 - b. Prohibition of bypass.
 - (1) Bypass is prohibited unless:
 - (a) Bypass was necessary to prevent loss of life, personal injury, or severe property damage;
 - (b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgement to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance; and
 - (c) The permittee submitted notices and requests as required under General Condition B.3.c.
 - (2) The Director may approve an anticipated bypass, after considering its adverse effects and any alternatives to bypassing, when the Director determines that it will meet the three conditions listed above in General Condition B.3.b.(1).
 - c. Notice and request for bypass.
 - (1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior written notice, if possible at least ten days before the date of the bypass.
 - (2) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in General Condition D.5.

4. Upset

- a. Definition. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operation error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or careless or improper operation.
- b. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of General Condition B.4.c are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
- c. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - (1) An upset occurred and that the permittee can identify the causes(s) of the upset;
 - (2) The permitted facility was at the time being properly operated;
 - (3) The permittee submitted notice of the upset as required in General Condition D.5, hereof (24-hour notice); and
 - (4) The permittee complied with any remedial measures required under General Condition A.3 hereof.
- d. Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

5. Treatment of Single Operational Event

For purposes of this permit, A Single Operational Event which leads to simultaneous violations of more than one pollutant parameter shall be treated as a single violation. A single operational event is an exceptional incident which causes simultaneous, unintentional, unknowing (not the result of a knowing act or omission), temporary noncompliance with more than one Clean Water Act effluent discharge pollutant parameter. A single operational event does not include Clean Water Act violations involving discharge without a NPDES permit or noncompliance to the extent caused by improperly designed or inadequate treatment facilities. Each day of a single operational event is a violation.

6. Overflows from Wastewater Conveyance Systems and Associated Pump Stations

- a. Definitions
 - (1) "Overflow" means the diversion and discharge of waste streams from any portion of the wastewater conveyance system including pump stations, through a designed overflow device or structure, other than discharges to the wastewater treatment facility.
 - (2) "Severe property damage" means substantial physical damage to property, damage to the conveyance system or pump station which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of an overflow.
 - (3) "Uncontrolled overflow" means the diversion of waste streams other than through a designed overflow device or structure, for example to overflowing manholes or overflowing into residences, commercial establishments, or industries that may be connected to a conveyance system.
- b. Prohibition of overflows. Overflows are prohibited unless:
 - (1) Overflows were unavoidable to prevent an uncontrolled overflow, loss of life, personal injury, or severe property damage;
 - (2) There were no feasible alternatives to the overflows, such as the use of auxiliary pumping or conveyance systems, or maximization of conveyance system storage; and
 - (3) The overflows are the result of an upset as defined in General Condition B.4. and meeting all requirements of this condition.
- c. Uncontrolled overflows are prohibited where wastewater is likely to escape or be carried into the waters of the State by any means.
- d. Reporting required. Unless otherwise specified in writing by the Department, all overflows and uncontrolled overflows must be reported orally to the Department within 24 hours from the time the

permittee becomes aware of the overflow. Reporting procedures are described in more detail in General Condition D.5.

7. Public Notification of Effluent Violation or Overflow
If effluent limitations specified in this permit are exceeded or an overflow occurs, upon request by the Department, the permittee shall take such steps as are necessary to alert the public about the extent and nature of the discharge. Such steps may include, but are not limited to, posting of the river at access points and other places, news releases, and paid announcements on radio and television.
8. Removed Substances
Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in such a manner as to prevent any pollutant from such materials from entering public waters, causing nuisance conditions, or creating a public health hazard.

SECTION C. MONITORING AND RECORDS

1. Representative Sampling
Sampling and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring points specified in this permit and shall be taken, unless otherwise specified, before the effluent joins or is diluted by any other waste stream, body of water, or substance. Monitoring points shall not be changed without notification to and the approval of the Director.
2. Flow Measurements
Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated and maintained to insure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than ± 10 percent from true discharge rates throughout the range of expected discharge volumes.
3. Monitoring Procedures
Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.
4. Penalties of Tampering
The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than two years, or by both. If a conviction of a person is for a violation committed after a first conviction of such person, punishment is a fine not more than \$20,000 per day of violation, or by imprisonment of not more than four years or both.
5. Reporting of Monitoring Results
Monitoring results shall be summarized each month on a Discharge Monitoring Report form approved by the Department. The reports shall be submitted monthly and are to be mailed, delivered or otherwise transmitted by the 15th day of the following month unless specifically approved otherwise in Schedule B of this permit.
6. Additional Monitoring by the Permittee
If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR 136 or as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report. Such increased frequency shall also be indicated. For a pollutant parameter that may be sampled more than once per day (e.g., Total Chlorine Residual), only the average daily value shall be recorded unless otherwise specified in this permit.
7. Averaging of Measurements
Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean, except for bacteria which shall be averaged as specified in this permit.

8. Retention of Records
Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR part 503), the permittee shall retain records of all monitoring information, including all calibration and maintenance records of all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time.

9. Records Contents
Records of monitoring information shall include:
 - a. The date, exact place, time and methods of sampling or measurements;
 - b. The individual(s) who performed the sampling or measurements;
 - c. The date(s) analyses were performed;
 - d. The individual(s) who performed the analyses;
 - e. The analytical techniques or methods used; and
 - f. The results of such analyses.

10. Inspection and Entry
The permittee shall allow the Director, or an authorized representative upon the presentation of credentials to:
 - a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit, and
 - d. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by state law, any substances or parameters at any location.

SECTION D. REPORTING REQUIREMENTS

1. Planned Changes
The permittee shall comply with Oregon Administrative Rules (OAR) 340, Division 52, "Review of Plans and Specifications". Except where exempted under OAR 340-52, no construction, installation, or modification involving disposal systems, treatment works, sewerage systems, or common sewers shall be commenced until the plans and specifications are submitted to and approved by the Department. The permittee shall give notice to the Department as soon as possible of any planned physical alternations or additions to the permitted facility.

2. Anticipated Noncompliance
The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

3. Transfers
This permit may be transferred to a new permittee provided the transferee acquires a property interest in the permitted activity and agrees in writing to fully comply with all the terms and conditions of the permit and the rules of the Commission. No permit shall be transferred to a third party without prior written approval from the Director. The permittee shall notify the Department when a transfer of property interest takes place.

4. Compliance Schedule
Reports of compliance or noncompliance with, or any progress reports on interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date. Any reports of noncompliance shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirements.

5. Twenty-Four Hour Reporting
The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally (by telephone) within 24 hours, unless otherwise specified in this permit, from the time the permittee becomes aware of the circumstances. During normal business hours, the Department's Regional office shall be called. Outside of normal business hours, the Department shall be contacted at 1-800-452-0311 (Oregon Emergency Response System).

A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. If the permittee is establishing an affirmative defense of upset or bypass to any offense under ORS 468.922 to 468.946, and in which case if the original reporting notice was oral, delivered written notice must be made to the Department or other agency with regulatory jurisdiction within 4 (four) calendar days. The written submission shall contain:

- a. A description of the noncompliance and its cause;
- b. The period of noncompliance, including exact dates and times;
- c. The estimated time noncompliance is expected to continue if it has not been corrected;
- d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance; and
- e. Public notification steps taken, pursuant to General Condition B.7.

The following shall be included as information which must be reported within 24 hours under this paragraph:

- a. Any unanticipated bypass which exceeds any effluent limitation in this permit.
- b. Any upset which exceeds any effluent limitation in this permit.
- c. Violation of maximum daily discharge limitation for any of the pollutants listed by the Director in this permit.

The Department may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

6. Other Noncompliance

The permittee shall report all instances of noncompliance not reported under General Condition D.4 or D.5, at the time monitoring reports are submitted. The reports shall contain:

- a. A description of the noncompliance and its cause;
- b. The period of noncompliance, including exact dates and times;
- c. The estimated time noncompliance is expected to continue if it has not been corrected; and
- d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

7. Duty to Provide Information

The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine compliance with this permit. The permittee shall also furnish to the Department, upon request, copies of records required to be kept by this permit.

Other Information: When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or any report to the Department, it shall promptly submit such facts or information.

8. Signatory Requirements

All applications, reports or information submitted to the Department shall be signed and certified in accordance with 40 CFR 122.22.

9. Falsification of Reports

Under ORS 468.953, any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance, is subject to a Class C felony punishable by a fine not to exceed \$100,000 per violation and up to 5 years in prison.

10. Changes to Indirect Dischargers - [Applicable to Publicly Owned Treatment Works (POTW) only]

The permittee must provide adequate notice to the Department of the following:

- a. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to section 301 or 306 of the Clean Water Act if it were directly discharging those pollutants and;
- b. Any substantial change in the volume or character of pollutants being introduced into the POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
- c. For the purposes of this paragraph, adequate notice shall include information on (i) the quality and quantity of effluent introduced into the POTW, and (ii) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

11. Changes to Discharges of Toxic Pollutant - [Applicable to existing manufacturing, commercial, mining, and silvicultural dischargers only]

The permittee must notify the Department as soon as they know or have reason to believe of the following:

- a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - (1) One hundred micrograms per liter (100 ug/l);
 - (2) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;
 - (3) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or
 - (4) The level established by the Department in accordance with 40 CFR 122.44(f).

- b. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - (1) Five hundred micrograms per liter (500 ug/l);
 - (2) One milligram per liter (1 mg/l) for antimony;
 - (3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or
 - (4) The level established by the Department in accordance with 40 CFR 122.44(f).

SECTION E. DEFINITIONS

1. BOD means five-day biochemical oxygen demand.
2. TSS means total suspended solids.
3. Mg/l means milligrams per liter.
4. Kg means kilograms.
5. M³/d means cubic meters per day.
6. MGD means million gallons per day.
7. Composite sample means a sample formed by collecting and mixing discrete samples taken periodically and based on time or flow.
8. FC means fecal coliform bacteria.
9. Technology based permit effluent limitations means technology-based treatment requirements as defined in 40 CFR 125.3, and concentration and mass load effluent limitations that are based on minimum design criteria specified in OAR 340-41.
10. CBOD means five day carbonaceous biochemical oxygen demand.
11. Grab sample means an individual discrete sample collected over a period of time not to exceed 15 minutes.
12. Quarter means January through March, April through June, July through September, or October through December.
13. Month means calendar month.
14. Week means a calendar week of Sunday through Saturday.
15. Total residual chlorine means combined chlorine forms plus free residual chlorine.
16. The term "bacteria" includes but is not limited to fecal coliform bacteria, total coliform bacteria, and E. coli bacteria.
17. POTW means a publicly owned treatment works.

**GENERAL PERMIT
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
WASTE DISCHARGE PERMIT**

Oregon Department of Environmental Quality
811 S.W. Sixth Avenue
, Portland, -OR 97204
Telephone: (503) 229-5279/6962

Issued pursuant to ORS 468B.050 and The Federal Clean Water Act

ISSUED TO:

All owners or operators of facilities discharging pollutants that are covered by this permit. The submittal of an approved application and payment of applicable fees are required.

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SOURCES COVERED BY THIS PERMIT:

Treated discharges from aquatic animal production facilities which produce at least 20,000 pounds of fish per year, but have less than 300,000 pounds on hand at any time. Offsite discharge of water associated with the release of fish. Facilities which produce less than 20,000 pounds of fish per year and feed less than 5000 pounds of food during the month of maximum feeding or facilities that hold fish, including fish monitoring or fish acclimation, do not require a NPDES permit unless required by the Department on a case-by-case basis.

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For a new or increased discharge from facilities on 303(d) water quality listed streams for temperature, the applicant or permittee shall follow provisions in Oregon Administrative Rule 340-041-0026.

Michael Downs, Administrator
Water Quality Division

Michael T. Llewelyn, Administrator
Water Quality Division

Issued:
Effective:

PERMITTED ACTIVITIES

Until this permit expires or is modified or revoked, the permittee is authorized to discharge to waters of the State state adequately treated wastewaters only from the authorized discharge point or points

established in Schedule A and only in conformance with all the requirements, limitations, and conditions set forth in the attached schedules as follows:

	<u>Page</u>
<i>Summary of Application Requirements</i>	2
Schedule A - Waste Discharge Limitations not to be Exceeded	2 and Controls 3-4
Schedule B - Minimum Monitoring and Reporting Requirements	3-45-7
Schedule C - Compliance Conditions and Schedules	7-8
Schedule D - Special Conditions	5 8
<i>Schedule E - Pretreatment Activities</i>	N/A
Schedule F - General Conditions	6-149-15

Unless specifically authorized by this permit, by another NPDES or WPCF permit, or by Oregon Administrative Rule, any other direct or indirect discharge to waters of the state is prohibited, including discharges to an underground injection control system.

SUMMARY OF APPLICATION REQUIREMENTS FOR PERMIT COVERAGE

1. *New Facilities Can Obtain Coverage By The Following Steps.*
 - a. *Notify the Department by submitting a completed application form requesting coverage under this permit at least 180 days prior to the planned activity that will result in the discharge to waters of the state.*
 - b. *Submit all required fees with the application.*
 - c. *Submit a Pollution Prevention Plan with the permit application (refer to 300-J permit, Schedule C).*
 - d. *The Department will review the application information and will either request additional information in writing or will notify the applicant by mail that it has received coverage and is authorized to operate under the conditions of this permit. If the applicant's operation cannot be approved for coverage under the general permit, the applicant may need to obtain an individual permit.*

2. *Existing Facilities Requiring Renewal Can Renew Coverage By The Following Steps.*
 - a. *Notify the Department by submitting a completed application form at least 180 days prior to permit expiration.*
 - b. *Submit all required fees with the application.*
 - c. *The Department will review the application for any substantial changes at the facility or any site-specific requirements such as waste load allocations that could affect coverage. The*

applicant will be notified if coverage cannot continue under the general permit in the event that the applicant may need to obtain an individual permit.

~~Each other direct and indirect waste discharge to waters of the State is prohibited unless covered by another NPDES or WPCF permit.~~

- d. *The existing permit will continue to be effective through administrative extension after the permit expiration date if the permittee submits a complete renewal application.*

~~*Those facilities which produce less than 20,000 pounds of fish per year and feed less than 5000 pounds of food during the month of maximum feeding do not require a NPDES permit unless required on a case-by-case basis.~~

- e. *The Department will notify the applicant by mail that it has received coverage and is authorized to operate under the conditions of the new permit.*

SCHEDULE A
WASTE DISCHARGE LIMITATIONS AND CONTROLS

1. *Normal Operations: Discharges shall not exceed the following limitations.*

<i>Parameter</i>	<i>Monthly Average</i>	<i>Daily Maximum</i>
<i>TSS^d</i>	<i>5 mg/l</i>	<i>10 mg/l</i>
<i>Settleable Solids</i>	<i>0.1 ml/l</i>	<i>--</i>
<i>Temperature</i>	<i>--</i>	<i>77° F</i>
<i>pH</i>	<i>Within the range of 6.0 - 9.0 S.U.</i>	

2. *Cleaning Operations: Discharges shall not exceed the following limitations.*

~~Waste Discharge Limitations not to be Exceeded by Facilities Covered by this General Permit~~

<i>Parameter</i>	<i>Daily Maximum</i>
<i>TSS^d</i>	<i>15 mg/l</i>
<i>Settleable Solids</i>	<i>0.2 ml/l</i>
<i>Temperature</i>	<i>77° F</i>
<i>pH</i>	<i>Within the range of 6.0 - 9.0 S.U.</i>

<u>Parameters</u>	<u>Normal Operations</u>		<u>Cleaning</u>
	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Daily Maximum</u>
Total Suspended Solids (TSS) ^a	5 mg/l	10 mg/l	15 mg/l
Settleable Solids	0.1 ml/l	-----	0.2 ml/l

Notes:

1. *When surface water is used as supply water, the influent total suspended solids (TSS) may be monitored on the day an effluent TSS sample has been collected and for up to two days prior. The maximum daily influent TSS value can be used to derive the net TSS effluent value.*

3. *Operating Requirements:*

- a. *Sand, silt, mud, solids, filter backwash, debris, or other pollutants deposited or removed in the aquatic animal production or treatment process shall be disposed of in a manner that prevents such materials from entering waters of the state.*
- b. *Discharge of untreated waste from cleaning operations to waters of the state is prohibited.*
- c. *Dead fish, fish eggs, or processing waste shall be disposed of in a manner that prevents such materials from entering the waters of the state.*

4. Except as provided for in OAR 340-045-0080, no wastes shall be discharged and no activities shall be conducted which violate Water Quality Standards as adopted in OAR 340-041 except in the following defined mixing zone:

The allowable mixing zone shall not exceed a maximum distance of 30 feet in the downstream direction from the point of discharge and shall not exceed half of the receiving stream width.

5. The effluent limitations and other conditions (Schedule B and C) in this permit related to temperature constitute the surface water temperature management plan (temperature management plan) required by OAR 340-041-0026(3)(a)(D) applicable to the permittee, unless otherwise notified in writing by the Department. Provided that the permittee complies with this temperature management plan, the permittee will be deemed to be in compliance with the state temperature water quality standard and not to be causing or contributing to a violation of the water quality standards for temperature. If a TMDL analysis or other monitoring information indicates the discharge has potential to affect the receiving water that is water quality limited for temperature, the Department may require specific corrective actions and/or application for an individual or basin-specific permit.

6. Chemical Use:

- a. Unless approved in writing by the Department before use, permittee must use chemicals approved or allowed for hatchery use by the US Food and Drug Administration (USFDA) or the US Environmental Protection Agency (USEPA). USFDA approved chemicals include: Investigational New Animal Drugs (INADs); Low Regulatory Priority (LRP) listed drugs, Deferred Regulatory Status (DRS) drugs and veterinary Extra-Labeled drugs. The permittee shall follow the conditions detailed in a facility's INAD permit application, treatment restrictions for LRP and DRS drugs, product label instructions for environmental protection, and precautions on labels of chemicals that are Extra-labeled by prescription.

The current USFDA LRP drugs are: acetic acid, calcium chloride, calcium oxide, carbon dioxide gas, Fuller's Earth, Garlic (whole form), hydrogen peroxide, ice, magnesium sulfate, onion (whole form), papain, potassium chloride, povidone iodine, sodium bicarbonate, sodium chloride, sodium sulfite, urea and tannic acid. The DRS chemicals are potassium permanganate and copper sulfate.

All chemical use shall be reported on the chemical use log and included in the annual report. Permittee shall document the disposal of all spent chemical dip treatment solutions according to the procedure described in the permittee's Pollution Prevention Plan.

- b. When seeking Department approval of drugs and chemicals not approved or allowed by USFDA or USEPA, the permittee must show all of the following:

~~Other Parameters~~ Limitations

- i) ~~The drug or disease control chemical used and/or method of its application could not have reasonably been anticipated;~~

~~pH~~ Shall not be outside the range ~~6.0 to 9.0~~

- ii) ~~Written or facsimile notification is provided to the appropriate DEQ Regional Office 24 hours prior to administering the drug or disease control chemical and approval from the Department is received; and~~

Note:

- ^a ~~The TSS concentration of the supply water may be subtracted from the TSS concentration in the discharge only if the discharge concentration exceeds the TSS permit limitation. (This applies to only surface water used as supply water).~~
- iii) *Adequate precautions and procedures are followed and documented to ensure that the quality of the receiving water is not impaired.*
2. ~~Notwithstanding the effluent limitations established by this permit, except as provided for in OAR 340-45-080, no wastes shall be discharged and no activities shall be conducted which will violate Water Quality Standards as adopted in OAR Chapter 340 Division 41 except in the following defined mixing zone:~~
- c. *The use of any chemical shall not violate any applicable water quality standard.*
- ~~The allowable mixing zone shall not extend downstream beyond 30 feet from the point of discharge and shall not exceed half of the receiving stream width.~~
7. *Biomass: Permittee's maximum monthly biomass shall not exceed _____ pounds for this facility. (If not specified, the facility shall not exceed 300,000 pounds.)*
8. *Off site discharge of water incidental to the release of healthy fish into waters of the state is permitted.*
3. ~~Chemical residuals from the treatment of fish disease or parasites are permitted to discharge provided that: (a) the chemicals are applied in accordance with EPA labeling requirements; and (b) the residuals are at concentrations which would not create acute toxicity within the mixing zone or chronic toxicity outside the mixing zone.~~
9. *Water Quality Limited Streams - If Total Maximum Daily Loads are established and the discharge from a permitted source is determined to be a significant contributor for a stream that is water quality limited, coverage may be terminated and application for an individual permit or different general permit may be required that would include waste load allocations.*

SCHEDULE B
MINIMUM MONITORING AND REPORTING REQUIREMENTS

4. ~~Biomass~~

1. *Effluent Discharge Normal Operations:*

~~Environmental conditions indicate that the maximum monthly biomass shall not exceed _____ pounds for this facility. (If not specified, the facility shall not exceed the face page limitation of 300,000 pounds).~~

<i>Item or Parameter</i>	<i>Minimum Frequency</i>	<i>Type of Sample</i>
<i>Flow</i>	<i>Weekly^a</i>	<i>Estimate</i>
<i>Total Suspended Solids</i>	<i>Weekly^a</i>	<i>Composite^b</i>
<i>Settleable Solids</i>	<i>Weekly^a</i>	<i>Grab</i>
<i>pH</i>	<i>Quarterly^a</i>	<i>Grab^c</i>
<i>Total Phosphorus</i>	<i>Quarterly^{a, d}</i>	<i>Grab</i>
<i>Ammonia-N</i>	<i>Quarterly^{a, d}</i>	<i>Grab</i>
<i>Temperature</i>	<i>Monthly^e</i>	<i>Measurement(s)</i>

5. ~~Off-site discharge of water associated with the release of fish into waters of the state is permitted.~~

2. *Effluent Discharge Cleaning Operations (monitoring to be conducted during active cleaning operations within the month of highest production during each calendar quarter; "per event" means any time cleaning operations occur during the quarter):*

<i>Parameter</i>	<i>Minimum Frequency</i>	<i>Type of Sample</i>
<i>Flow</i>	<i>Per Event^a</i>	<i>Estimate</i>
<i>Total Suspended Solids</i>	<i>Per Event^a</i>	<i>Composite^b</i>
<i>Settleable Solids</i>	<i>Per Event^a</i>	<i>Grab</i>
<i>Total Phosphorus</i>	<i>Per Event^{a, d}</i>	<i>Grab</i>
<i>Ammonia-N</i>	<i>Per Event^{a, d}</i>	<i>Grab</i>
<i>Temperature</i>	<i>Per Event^e</i>	<i>Measurement(s)</i>

3. *Receiving Stream Monitoring:*

SCHEDULE B

<i>Parameter</i>	<i>Minimum Frequency</i>	<i>Type of Sample</i>
Temperature	Monthly	Measurement(s)

Minimum Monitoring and Reporting Requirements

4. *Influent Supply Water (optional for net TSS compliance calculation; refer to Schedule A):*

<i>Item or Parameter</i>	<i>Minimum Frequency</i>	<i>Type of Sample</i>
TSS	Optional - Per Event	Composite ⁵

~~NORMAL OPERATIONS~~

TSS ^b	Weekly	Composite
Settleable Solids ^b	Weekly	Composite
Flow	Weekly	Estimate
pH	Weekly	Measurement

Notes for Monitoring Requirements:

a. ~~CLEANING OPERATIONS (monitoring to be conducted during active cleaning operations within~~ *During the month of highest production during the for each calendar quarter).*

TSS ^c	Per-Event	Composite
Settleable Solids ^c	Per-Event	Composite

b. *A representative composite sample shall consist of at least 4 grab samples collected during daylight hours of a single day and composited for analysis. For a facility that has multiple outfalls, only one outfall is required to be sampled during normal operations and cleaning operations, provided the other outfalls all have substantially identical effluents.*

~~SUPPLY WATER (Optional for facilities whose effluent concentrations exceed Schedule A, Condition 1 TSS limitations)~~

c. *The following may be used for the measurement of pH: pH paper that has the capability of determining pH to one-tenths (0.1) standard units or a proper calibrated pH meter.*

TSS ^d	Weekly	Composite
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d. *Monitoring is required only during the first four quarters after the permit is assigned to the permittee.*

Notes:

e. *Effluent temperature monitoring must be conducted from April 1 through October 31. Effluent measurement shall be conducted at approximately the same time as the receiving stream temperature monitoring during the afternoon hours. For multiple outfalls, monitoring is required at only one outfall, provided that the outfalls have substantially identical effluents.*

~~^b NORMAL OPERATION SAMPLING~~

f. *Receiving stream temperature monitoring must be conducted from April 1 through October 31. Measurements must be collected at three distinct locations during the afternoon hours. Sample locations shall include a point 10 feet upstream from the intake structure, a point 10 feet above the outfall, and at a point 30 feet downstream from the outfall. For multiple outfalls, monitoring is required at only one outfall, provided that the outfalls have substantially identical effluents.*

~~During normal operations, a minimum of 4 representative grab samples shall be collected during daylight hours of a single day and composited for analysis.~~

- g. *A representative sample of the supply water shall be a daily composite sample (as defined in Note b).*

~~CLEANING OPERATION SAMPLING~~

5. *Chemicals Record Keeping:*

~~If raceway flows are continuously discharging through a settling pond or are diverted through a settling pond during cleaning, a representative composite sample shall be taken of the settling pond overflow during cleaning operations. The composite sample shall consist of at least 4 grab samples collected during the cleaning cycle.~~

The permittee shall keep a written record on all chemicals used at the facility for three (3) years and these records shall be available for review upon request by the Department. These records shall include:

~~If raceways are vacuumed, a representative composite sample of the hatchery discharge shall be taken during the vacuuming cycle. The composite shall consist of at least 4 grab samples collected during the cleaning cycle.~~

- a. *Person(s) responsible for administering the chemicals.*

~~If raceways are self cleaning (continuous cleaning), separate sampling of the raceways during cleaning operations is not required.~~

^d ~~_____~~ SUPPLY WATER SAMPLING

- b. *The trade name of the chemicals used.*

~~_____~~ If sampled, supply water sample collection shall be concurrent with discharge sample collection.

- c. *The date of application(s).*

2. ~~_____~~ Reporting Procedures

- d. *The reason for chemical usage and method of application.*

~~Monitoring data shall be collected and recorded during one month of each calendar quarter. A summary shall be submitted to the Department quarterly on approved forms by the 15th of the following month. The month of highest production during the calendar quarter shall be used as the month that monitoring occurs. Monitoring during cleaning operations shall be accomplished during active cleaning operations within the month of highest production during the calendar quarter.~~

SCHEDULE D

- e. *The location (e.g., hatch house, raceway or pond) of chemical use, estimated or measured concentration of active ingredient in the hatchery or rearing facility effluent at the point of discharge to the receiving waters, and a comparison of the estimated effluent chemical concentration to the chemical label dilution requirement.*

Special Conditions

- f. *The quantity, trade name, method of disposal, and location of any disposed spent chemical dip solutions.*
- ~~1. Within 180 days of notice from the Department, the permittee shall prepare and submit a temperature management plan. Unless the Department notifies the permittee stating that the plan is inadequate, the plan shall become part of the permit and shall be implemented by the permittee.~~
6. *Reporting Procedures and Schedules:*
- ~~2. The Department may revoke a general permit as it applies to any person and require such person to apply for and obtain an individual NPDES permit if:~~
- a. *Permittee shall collect and record the monitoring data according to the frequency in Schedule B. Permittee must submit the results to the Department on approved forms by the 15th of the month following the end of each quarter. Monitoring during cleaning operations shall be accomplished during active cleaning operations within the month of highest production during the calendar quarter.*
- ~~a. The permitted source or activity is a significant contributor of pollution or creates other environmental problems;~~
- ~~b. The permittee is not in compliance with the terms and conditions of this general permit; or~~
- ~~c. Conditions or standards have changed so that the source or activity no longer qualifies for a general permit.~~
- If the facility did not discharge during any quarterly period, the Discharge Monitoring Report (DMR) must still be submitted. The DMR shall describe the status of operations (i.e., no discharge).*
- ~~3. Any permittee not wishing to be covered or limited by this general permit may make application for an individual NPDES permit in accordance with NPDES procedures in OAR 340-45-030.~~
- b. *Permittee shall submit a summary of chemical use annually or more often if requested by the Department. The annual report covers the previous calendar year and is due by February 15th. The annual summary report shall describe the monthly quantity of each chemical used, the reason for application, and the total annual quantity of each chemical used.*

SCHEDULE C

COMPLIANCE CONDITIONS AND SCHEDULES

1. *Pollution Prevention Plan:*
- a. *For an existing facility, within one (1) year after assignment of this permit, the permittee shall develop, implement, and submit a copy of the Pollution Prevention Plan (Plan) to the Department. The submittal of the Plan shall include a certification statement and signature by the hatchery manager or other responsible person stating that the permittee is employing*

all reasonable best management practices, the Plan is being implemented, the Plan will be evaluated if a compliance problem occurs, and updates to the Plan will occur as necessary.

- b. *For a new facility, the Plan shall be developed **prior** to starting operations and submitted with the application for permit assignment.*
- c. *The permittee shall maintain a copy of the Plan at the facility for review by the Department. The permittee shall assure that appropriate staff are familiar with the Plan and have been adequately trained to follow the applicable procedures and practices. The permittee shall review the Plan following any significant discharge of pollutants and revise it as needed to comply with the permit limitations and conditions.*
- d. *The content of the required Plan shall include, but not be limited to, the following:*

- (1) *A flow diagram of the production operations, wastewater collection and treatment, and monitoring locations that are required in Schedule B.*
 - (2) *A description of how fish feeding will be conducted to minimize the discharge of unconsumed food.*
 - (3) *The frequency of pond and raceway cleaning and the procedures that will be used to determine when cleaning is necessary to prevent the discharge of accumulated to waters of the state.*
 - (4) *A description of how pond and raceway cleaning will be performed to reduce the disturbance and discharge of settled solids during cleaning events.*
 - (5) *A description of how grading, harvesting, fish release, and other activities within ponds or raceways will be conducted to minimize disturbance and discharge of accumulated solids.*
 - (6) *A description of how all chemicals will be used within the facility to ensure that the amounts and frequency of application are the minimum necessary for effective disease treatment and control. Include procedures that describe how the concentration of disease control chemicals, drugs, and other chemicals in the facility's discharge will be minimized to the maximum extent practicable and comply with the chemical labeling for dilution requirements.*
 - (7) *A description of how all chemicals will be stored and disposed.*
 - (8) *A description of how solid and biological wastes will be collected, stored, and ultimately disposed. Wastes to be included are cleaning waste from production or treatment areas. The land application of solid waste shall be at appropriate agronomic rates.*
 - (9) *Procedures to prevent spills, spill response procedures, and notification plan for any unplanned discharge of waste materials, oil, disease chemicals, and other hazardous materials.*
 - (10) *Procedures to identify and prevent storm water pollution. The procedures shall consider management practices or treatment controls, materials exposure, and spill prevention to prevent discharge quality problems resulting from storm water runoff.*
 - (11) *Provide an evaluation of the receiving stream water quality limited status and the parameter(s) of concern, and determine potential impacts to these parameters from the fish hatchery discharge and any additional measures needed to prevent the excessive discharge of pollutants.*
2. *Updated Temperature Management Plan:*
- a. *Within three and a half (3.5) years after permit issuance, the permittee shall submit a report that analyzes the data from the first three years of monitoring to determine compliance with the temperature standard and if necessary proposes control strategies.*

The report must include an evaluation of operational thermal load impacts outside the defined mixing zone. The report shall also describe existing and/or proposed temperature reduction control strategies to comply with the numeric water quality temperature standard (i.e., 64° F, 55° F, 50° F, or no measurable increase; applicable criteria for salmonid spawning, rearing, or threatened and endangered). The report will be considered an updated temperature management plan.

- b. *At the time the temperature monitoring report is submitted the permittee may request a discontinuation of Schedule B temperature monitoring frequency if there is no reasonable potential to exceed applicable criteria.*

SCHEDULE D
SPECIAL CONDITIONS

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1. *Any permittee not wishing to be covered or limited by this general permit may make application for an individual NPDES permit in accordance with NPDES procedures in OAR 340-045-0030.*

SCHEDULE F
NPDES GENERAL CONDITIONS

SECTION A. STANDARD CONDITIONS

1. Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of Oregon Revised Statutes (ORS) 468B.025 and is grounds for enforcement action; for permit termination, suspension, or modification; or for denial of a permit renewal application.

2. Penalties for Water Pollution and Permit Condition Violations

Oregon Law (ORS 468.140) allows the Director to impose civil penalties up to \$10,000 per day for violation of a term, condition, or requirement of a permit.

Under ORS 468.943, unlawful water pollution, if committed by a person with criminal negligence, is punishable by a fine of up to \$25,000 or by imprisonment for not more than one year, or by both. Each day on which a violation occurs or continues is a separately punishable offense.

Under ORS 468.946, a person who knowingly discharges, places or causes to be placed any waste into the waters of the state or in a location where the waste is likely to escape into the waters of the state, is subject to a Class B felony punishable by a fine not to exceed \$200,000 and up to 10 years in prison.

3. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. In addition, upon request of the Department, the permittee shall correct any adverse impact on the environment or human health resulting from noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

4. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply ~~for~~ and to have the permit renewed. The application shall be submitted at least 180 days before the expiration date of this permit.

The Director may grant permission to submit an application less than 180 days in advance but no later than the permit expiration date.

5. Permit Actions

This permit may be modified, suspended, revoked and reissued, or terminated for cause including, but not limited to, the following:

- a. Violation of any term, condition, or requirement of this permit, a rule, or a statute;
- b. Obtaining this permit by misrepresentation or failure to disclose fully all material facts; or
- c. ~~e.~~ A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.
- d. *The permittee shall pay the fees required to be filed with this permit application and to be paid annually for permit compliance determination as outlined in the Oregon Administrative Rules, Chapter 340, Division 45.*

The filing of a request by the permittee for a permit modification or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

6. Toxic Pollutants

The permittee shall comply with any applicable effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

7. Property Rights

The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.

8. Permit References

Except for effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants and standards for sewage sludge use or disposal established under Section 405(d) of the Clean Water Act, all rules and statutes referred to in this permit are those in effect on the date this permit is issued.

SECTION B. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls, and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

2. Duty to Halt or Reduce Activity

For industrial or commercial facilities, upon reduction, loss, or failure of the treatment facility, the permittee shall, to the extent necessary to maintain compliance with its permit, control production or all discharges or both until the facility is restored or an alternative method of treatment is provided. This requirement applies, for example, when the primary source of power of the treatment facility fails or is reduced or lost. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

3. Bypass of Treatment Facilities

a. Definitions

- (1) "Bypass" means intentional diversion of waste streams from any portion of the treatment facility. The term "bypass" does not include nonuse of singular or multiple units or processes of a treatment works when the nonuse is insignificant to the quality and/or quantity of the effluent produced by the treatment works. The term "bypass" does not apply if the diversion does not cause effluent limitations to be exceeded, provided the diversion is to allow essential maintenance to assure efficient operation.
- (2) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities or treatment processes which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

b. Prohibition of bypass.

- (1) Bypass is prohibited unless:
 - (a) Bypass was necessary to prevent loss of life, personal injury, or severe property damage;

- (b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgement to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance; and
 - (c) The permittee submitted notices and requests as required under General Condition B.3.c.
- (2) The Director may approve an anticipated bypass, after considering its adverse effects and any alternatives to bypassing, when the Director determines that it will meet the three conditions listed above in General Condition B.3.b.(1).
- c. Notice and request for bypass.
- (1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior written notice, if possible at least ten days before the date of the bypass.
 - (2) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in General Condition D.5.

4. Upset

- a. Definition. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operation error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or careless or improper operation.
- b. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of General Condition B.4.c are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
- c. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - (1) An upset occurred and that the permittee can identify the causes(s) of the upset;
 - (2) The permitted facility was at the time being properly operated;
 - (3) The permittee submitted notice of the upset as required in General Condition D.5, hereof (24-hour notice); and
 - (4) The permittee complied with any remedial measures required under General Condition A.3 hereof.
- d. Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

5. Treatment of Single Operational Event

For purposes of this permit, A Single Operational Event which leads to simultaneous violations of more than one pollutant parameter shall be treated as a single violation. A single operational event is an exceptional incident which causes simultaneous, unintentional, unknowing (not the result of a knowing act or omission), temporary noncompliance with more than one Clean Water Act effluent discharge pollutant parameter. A single operational event does not include Clean Water Act violations involving discharge without a NPDES

permit or noncompliance to the extent caused by improperly designed or inadequate treatment facilities. Each day of a single operational event is a violation.

6. Overflows from Wastewater Conveyance Systems and Associated Pump Stations

a. Definitions

- (1) "Overflow" means the diversion and discharge of waste streams from any portion of the wastewater conveyance system including pump stations, through a designed overflow device or structure, other than discharges to the wastewater treatment facility.
- (2) "Severe property damage" means substantial physical damage to property, damage to the conveyance system or pump station which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of an overflow.
- (3) "Uncontrolled overflow" means the diversion of waste streams other than through a designed overflow device or structure, for example to overflowing manholes or overflowing into residences, commercial establishments, or industries that may be connected to a conveyance system.

b. Prohibition of overflows. Overflows are prohibited unless:

- (1) Overflows were unavoidable to prevent an uncontrolled overflow, loss of life, personal injury, or severe property damage;
- (2) There were no feasible alternatives to the overflows, such as the use of auxiliary pumping or conveyance systems, or maximization of conveyance system storage; and
- (3) The overflows are the result of an upset as defined in General Condition B.4. and meeting all requirements of this condition.

c. Uncontrolled overflows are prohibited where wastewater is likely to escape or be carried into the waters of the State by any means.

d. Reporting required. Unless otherwise specified in writing by the Department, all overflows and uncontrolled overflows must be reported orally to the Department within 24 hours from the time the permittee becomes aware of the overflow. Reporting procedures are described in more detail in General Condition D.5.

7. Public Notification of Effluent Violation or Overflow

If effluent limitations specified in this permit are exceeded or an overflow occurs, upon request by the Department, the permittee shall take such steps as are necessary to alert the public about the extent and nature of the discharge. Such steps may include, but are not limited to, posting of the river at access points and other places, news releases, and paid announcements on radio and television.

8. Removed Substances

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in such a manner as to prevent any pollutant from such materials from entering public waters, causing nuisance conditions, or creating a public health hazard.

SECTION C. MONITORING AND RECORDS

1. Representative Sampling

Sampling and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring points specified in this permit and shall be taken, unless otherwise specified, before the effluent joins or is diluted by any other waste stream, body of

water, or substance. Monitoring points shall not be changed without notification to and the approval of the Director.

2. Flow Measurements

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated and maintained to insure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than ± 10 percent from true discharge rates throughout the range of expected discharge volumes.

3. Monitoring Procedures

Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.

4. Penalties of Tampering

The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than two years, or by both. If a conviction of a person is for a violation committed after a first conviction of such person, punishment is a fine not more than \$20,000 per day of violation, or by imprisonment of not more than four years or both.

5. Reporting of Monitoring Results

Monitoring results shall be summarized each month on a Discharge Monitoring Report form approved by the Department. The reports shall be submitted monthly and are to be mailed, delivered or otherwise transmitted by the 15th day of the following month unless specifically approved otherwise in Schedule B of this permit.

6. Additional Monitoring by the Permittee

If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR 136 or as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report. Such increased frequency shall also be indicated. For a pollutant parameter that may be sampled more than once per day (e.g., Total Chlorine Residual), only the average daily value shall be recorded unless otherwise specified in this permit.

7. Averaging of Measurements

Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean, except for bacteria which shall be averaged as specified in this permit.

8. Retention of Records

Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR part 503), the permittee shall retain records of all monitoring information, including all calibration and maintenance records of all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time.

9. Records Contents

Records of monitoring information shall include:

- a. The date, exact place, time and methods of sampling or measurements;
- b. The individual(s) who performed the sampling or measurements;
- c. The date(s) analyses were performed;
- d. The individual(s) who performed the analyses;
- e. The analytical techniques or methods used; and
- f. The results of such analyses.

10. Inspection and Entry

The permittee shall allow the Director, or an authorized representative upon the presentation of credentials to:

- a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit, and
- d. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by state law, any substances or parameters at any location.

SECTION D. REPORTING REQUIREMENTS

1. Planned Changes

The permittee shall comply with Oregon Administrative Rules (OAR) 340, Division 52, "Review of Plans and Specifications". Except where exempted under OAR 340-52, no construction, installation, or modification involving disposal systems, treatment works, sewerage systems, or common sewers shall be commenced until the plans and specifications are submitted to and approved by the Department. The permittee shall give notice to the Department as soon as possible of any planned physical alternations or additions to the permitted facility.

2. Anticipated Noncompliance

The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

3. Transfers

This permit may be transferred to a new permittee provided the transferee acquires a property interest in the permitted activity and agrees in writing to fully comply with all the terms and conditions of the permit and the rules of the Commission. No permit shall be transferred to a third party without prior written approval from the Director. The permittee shall notify the Department when a transfer of property interest takes place.

4. Compliance Schedule

Reports of compliance or noncompliance with, or any progress reports on interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date. Any reports of noncompliance shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirements.

5. Twenty-Four Hour Reporting

The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally (by telephone) within 24 hours, unless otherwise specified in this permit,

from the time the permittee becomes aware of the circumstances. During normal business hours, the Department's Regional office shall be called. Outside of normal business hours, the Department shall be contacted at 1-800-452-0311 (Oregon Emergency Response System).

A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. If the permittee is establishing an affirmative defense of upset or bypass to any offense under ORS 468.922 to 468.946, and in which case if the original reporting notice was oral, delivered written notice must be made to the Department or other agency with regulatory jurisdiction within 4 (four) calendar days. The written submission shall contain:

- a. A description of the noncompliance and its cause;
- b. The period of noncompliance, including exact dates and times;
- c. The estimated time noncompliance is expected to continue if it has not been corrected;
- d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance; and
- e. Public notification steps taken, pursuant to General Condition B.7.

The following shall be included as information which must be reported within 24 hours under this paragraph:

- a. Any unanticipated bypass which exceeds any effluent limitation in this permit.
- b. Any upset which exceeds any effluent limitation in this permit.
- c. Violation of maximum daily discharge limitation for any of the pollutants listed by the Director in this permit.

The Department may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

6. Other Noncompliance

The permittee shall report all instances of noncompliance not reported under General Condition D.4 or D.5, at the time monitoring reports are submitted. The reports shall contain:

- a. A description of the noncompliance and its cause;
- b. The period of noncompliance, including exact dates and times;
- c. The estimated time noncompliance is expected to continue if it has not been corrected; and
- d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

7. Duty to Provide Information

The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine compliance with this permit. The permittee shall also furnish to the Department, upon request, copies of records required to be kept by this permit.

Other Information: When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or any report to the Department, it shall promptly submit such facts or information.

8. Signatory Requirements

All applications, reports or information submitted to the Department shall be signed and certified in accordance with 40 CFR 122.22.

9. Falsification of Reports

Under ORS 468.953, any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance, is subject to a Class C felony punishable by a fine not to exceed \$100,000 per violation and up to 5 years in prison.

10. Changes to Indirect Dischargers - [Applicable to Publicly Owned Treatment Works (POTW) only]

The permittee must provide adequate notice to the Department of the following:

- a. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to section 301 or 306 of the Clean Water Act if it were directly discharging those pollutants and;
- b. Any substantial change in the volume or character of pollutants being introduced into the POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
- c. For the purposes of this paragraph, adequate notice shall include information on (i) the quality and quantity of effluent introduced into the POTW, and (ii) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

11. Changes to Discharges of Toxic Pollutant - [Applicable to existing manufacturing, commercial, mining, and silvicultural dischargers only]

The permittee must notify the Department as soon as they know or have reason to believe of the following:

- a. ~~a.~~ That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - (1) One hundred micrograms per liter (100 mgug/l);
 - (2) Two hundred micrograms per liter (200 mgug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 mgug/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;
 - (3) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or
 - (4) The level established by the Department in accordance with 40 CFR 122.44(f).
- b. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - (1) Five hundred micrograms per liter (500 mgug/l);
 - (2) One milligram per liter (1 mg/l) for antimony;
 - (3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or
 - (4) The level established by the Department in accordance with 40 CFR 122.44(f).

SECTION E. DEFINITIONS

1. BOD means five-day biochemical oxygen demand.
2. TSS means total suspended solids.
3. Mg/l means milligrams per liter.
4. Kg means kilograms.
5. M³/d means cubic meters per day.
6. MGD means million gallons per day.
7. Composite sample means a sample formed by collecting and mixing discrete samples taken periodically and based on time or flow.
8. FC means fecal coliform bacteria.
9. Technology based permit effluent limitations means technology-based treatment requirements as defined in 40 CFR 125.3, and concentration and mass load effluent limitations that are based on minimum design criteria specified in OAR 340-41.
10. CBOD means five day carbonaceous biochemical oxygen demand.
11. Grab sample means an individual discrete sample collected over a period of time not to exceed 15 minutes.
12. Quarter means January through March, April through June, July through September, or October through December.
13. Month means calendar month.
14. Week means a calendar week of Sunday through Saturday.
15. Total residual chlorine means combined chlorine forms plus free residual chlorine.
16. The term "bacteria" includes but is not limited to fecal coliform bacteria, total coliform bacteria, and E. coli bacteria.
17. POTW means a publicly owned treatment works.

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**GENERAL PERMIT
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
WASTE DISCHARGE PERMIT**

Oregon Department of Environmental Quality
811 SW Sixth Avenue, Portland, OR 97204, (503) 229-6962
Issued pursuant to ORS 468B.050 and The Federal Clean Water Act

ISSUED TO:

All owners or operators of facilities discharging pollutants that are covered by this permit. The submittal of an approved application and payment of applicable fees are required.

SOURCES COVERED BY THIS PERMIT:

Wet storage facilities (log ponds) that do not receive domestic sewage or process wastewater and that discharge to surface waters; non-discharging evaporative pond; facilities that use cold deck sprinkling or have log yard runoff where sprinkling occurs.

Michael T. Llewelyn, Administrator
Water Quality Division

Issued:
Effective:

PERMITTED ACTIVITIES

Until this permit expires or is modified or revoked, the permittee is authorized to construct, install, modify, or operate a wastewater collection, treatment, control and/or disposal system, and discharge to public waters adequately treated wastewater only from the authorized discharge point or points established in Schedule A and only in conformance with all the requirements, limitations, and conditions set forth in the attached schedules as follows:

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Unless specifically authorized by this permit, by another NPDES or WPCF permit, or by Oregon Administrative Rule, any other direct or indirect discharge to waters of the state is prohibited, including discharges to an underground injection control system.

SUMMARY OF APPLICATION REQUIREMENTS FOR PERMIT COVERAGE

1. New Facilities Can Obtain Coverage By The Following Steps:
 - a. Notify the Department by submitting a completed application form requesting coverage under this permit at least 180 days prior to the planned activity that will result in the discharge to waters of the state.
 - b. Submit all applicable fees with the application prior to obtaining coverage.
 - c. The Department will review the application information and will either request additional information in writing or will notify the applicant by mail that it has received coverage and is authorized to operate under the conditions of this permit. If the applicant's operation cannot be approved for coverage under the general permit, the applicant may need to obtain an individual permit.

2. Existing Facilities Requiring Renewal Can Renew Coverage By The Following Steps:
 - a. Notify the Department by submitting a complete application form 180 days prior to permit expiration.
 - b. Submit all applicable fees with the permit renewal application.
 - c. The Department will review the application for any substantial changes at the facility or any site-specific requirements such as waste load allocations that could affect coverage. The applicant will be notified if coverage cannot continue under the general permit. In that event, the applicant may need to obtain an individual permit.
 - d. The existing permit will continue to be effective through administrative extension after the permit expiration date if the permittee submits a complete renewal application.
 - e. The Department will notify the applicant by mail that it has received coverage and is authorized to operate under the conditions of the new permit.

SCHEDULE A
WASTE DISCHARGE LIMITATIONS, BENCHMARK, AND CONTROLS

1. No discharge is allowed from May 1 - October 31 from log ponds, log decks and log yards where sprinkling occurs^a.
2. Discharge is allowed from November 1 - April 30 provided that at least a 50:1 dilution is available in the receiving stream and the following effluent limitations are met^a:

Parameter	Limitation (daily maximum)
Flow	As low as practicable as necessitated by precipitation
pH	Shall be between 6.0 and 9.0
Debris	No debris shall be discharged
Oil & Grease Sheen	No visible sheen
Temperature	77°F

Note:

- a. If unseasonably wet weather or other reasons beyond the control of the permittee necessitate discharge from a log pond during the May 1 through October 31 period or at a time when a 50:1 dilution is not available, the discharge may be permitted upon prior written approval by the Department.
3. The waste discharge benchmark is a guideline concentration, not a limitation. The benchmark is designed to assist the permittee in determining whether pollution controls and/or management practices are being implemented to reduce the pollutant concentration to below levels of concern. If a benchmark is not achieved, the permittee shall review the operation of the log pond and other potential sources of the pollutant within 30 days of receiving sampling results and evaluate any additional technically and economically feasible site controls and/or management actions that can be implemented to improve the quality of the discharge. Permittee shall implement those site controls and management actions that are reasonable and prudent. Permittee shall document and keep on file a summary of the analysis, evaluation, and decisions made regarding site controls or management actions. Permittee must make those documents available to the Department upon request.

Parameter	Benchmark (daily maximum)
Total Suspended Solids	100 mg/l

4. The log pond overflow and drainage ways from log yards shall be baffled, screened, and/or otherwise controlled (e.g., absorbent materials) to prevent the discharge of bark and other woody debris, oil and grease, and floating solids.
5. No sewage or process wastewater^b shall be discharged to the log pond.

Note:

- b. Process wastewater does not include cold deck sprinkling water, yard runoff, boiler blowdown, boiler scrubber water, non-contact cooling water, or fire deluge water. When these wastestreams are discharged to the log ponds, sufficient recirculation must occur in order to prevent discharge to state waters except during the wet weather months.
6. Except as provided for in OAR 340-045-0080, no wastes may be discharged and no activities may be conducted which violate Water Quality Standards as adopted in OAR 340-041 except in the following defined mixing zone:

The allowable mixing zone shall not exceed a maximum distance of 100 feet in the downstream direction from the point of discharge and shall not exceed one-half the width of the receiving stream.
 7. No discharge from the log pond is permitted during log pond dredging operations. If possible, log pond dredging should be conducted during the summer season. A log pond shall not be drained or dredged without prior written approval from the Department. All dredged material from the pond shall be disposed in a manner that will prevent a discharge to surface waters.
 8. The effluent limitation and other conditions (Schedule B) in this permit related to temperature constitute the surface water temperature management plan (temperature management plan) required by OAR 340-041-0026(3)(a)(D) applicable to the permittee. Provided that the permittee complies with this temperature management plan, the permittee will be deemed to be in compliance with the state temperature water quality standard and not to be causing or contributing to a violation of the water quality standards for temperature. If a TMDL analysis or other monitoring information indicates the discharge has potential to impact the receiving water that is water quality limited for temperature, the Department may require development and implementation of an updated temperature management plan.
 9. Water Quality Limited Streams - If Total Maximum Daily Loads are established and the discharge from a permitted source is determined to be a significant contributor for a stream that is water quality limited, the Department may terminate the permittee's coverage and require application for an individual permit or different general permit that would include waste load allocations.
 10. Non-discharging wet storage facilities (e.g., evaporative pond) shall be managed to prevent:
 - a. The creation of odors, fly and mosquito breeding or other nuisance conditions; and
 - b. Violation of the Department's groundwater quality protection rules (OAR 340-040).

SCHEDULE B
 MINIMUM MONITORING AND REPORTING REQUIREMENTS

1. Effluent Discharge: During periods of discharge, facilities shall monitor at the following minimum frequency:

Item or Parameter	Minimum Frequency	Type of Sample
Effluent Flow ^a (mgd)	Weekly	Measure
Receiving Stream Flow ^a (cfs)	Weekly	Estimate/Measure
pH ^b	Weekly	Grab
Total Suspended Solids	Monthly	Grab
Temperature ^c	Weekly	Measure
Inspect for Oil & Grease Sheen	Weekly	Record observations
Inspect for Debris	Weekly	Record observations
Inspect Screen and other Effluent Quality Controls	Weekly	Record observations

Notes:

- a. Monitoring for effluent flow and receiving stream flow shall occur on the same day.
 - b. The following may be used for the measurement of pH: pH paper that has the capability of determining pH to one-tenths (0.1) standard units or a proper calibrated pH meter.
 - c. Monitoring for temperature is required during the months of November and April.
2. Records for inspection of the screen and other effluent control devices and any corrective action shall be recorded and maintained in a log book that is kept on-site and shall be made available for review when requested by the Department.
 3. Monitoring results shall be reported monthly on approved forms. Reports must be submitted to the Department by the 15th day of the following month. During a month when a discharge does not occur the discharge monitoring form shall include a statement indicating that there was no discharge.

SCHEDULE C
 COMPLIANCE CONDITIONS

1. Upon notice by the Department the permittee shall develop and submit for approval an updated temperature management plan.

SCHEDULE D
 SPECIAL CONDITIONS

1. Any permittee not wishing to be covered or limited by this general permit may make application for an individual NPDES permit in accordance with NPDES procedures in OAR 340-045-0030.

SCHEDULE F
NPDES GENERAL CONDITIONS

SECTION A. STANDARD CONDITIONS

1. Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of Oregon Revised Statutes (ORS) 468B.025 and is grounds for enforcement action; for permit termination, suspension, or modification; or for denial of a permit renewal application.

2. Penalties for Water Pollution and Permit Condition Violations

Oregon Law (ORS 468.140) allows the Director to impose civil penalties up to \$10,000 per day for violation of a term, condition, or requirement of a permit.

Under ORS 468.943, unlawful water pollution, if committed by a person with criminal negligence, is punishable by a fine of up to \$25,000 or by imprisonment for not more than one year, or by both. Each day on which a violation occurs or continues is a separately punishable offense.

Under ORS 468.946, a person who knowingly discharges, places or causes to be placed any waste into the waters of the state or in a location where the waste is likely to escape into the waters of the state, is subject to a Class B felony punishable by a fine not to exceed \$200,000 and up to 10 years in prison.

3. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. In addition, upon request of the Department, the permittee shall correct any adverse impact on the environment or human health resulting from noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

4. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply to have the permit renewed. The application shall be submitted at least 180 days before the expiration date of this permit.

The Director may grant permission to submit an application less than 180 days in advance but no later than the permit expiration date.

5. Permit Actions

This permit may be modified, suspended, revoked and reissued, or terminated for cause including, but not limited to, the following:

- a. Violation of any term, condition, or requirement of this permit, a rule, or a statute;
- b. Obtaining this permit by misrepresentation or failure to disclose fully all material facts; or
- c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.
- d. The permittee shall pay the fees required to be filed with this permit application and to be paid annually for permit compliance determination as outlined in the Oregon Administrative Rules, Chapter 340, Division 45.

The filing of a request by the permittee for a permit modification or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

6. Toxic Pollutants
The permittee shall comply with any applicable effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.
7. Property Rights
The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.
8. Permit References
Except for effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants and standards for sewage sludge use or disposal established under Section 405(d) of the Clean Water Act, all rules and statutes referred to in this permit are those in effect on the date this permit is issued.

SECTION B. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. Proper Operation and Maintenance
The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls, and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.
2. Duty to Halt or Reduce Activity
For industrial or commercial facilities, upon reduction, loss, or failure of the treatment facility, the permittee shall, to the extent necessary to maintain compliance with its permit, control production or all discharges or both until the facility is restored or an alternative method of treatment is provided. This requirement applies, for example, when the primary source of power of the treatment facility fails or is reduced or lost. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
3. Bypass of Treatment Facilities
 - a. Definitions
 - (1) "Bypass" means intentional diversion of waste streams from any portion of the treatment facility. The term "bypass" does not include nonuse of singular or multiple units or processes of a treatment works when the nonuse is insignificant to the quality and/or quantity of the effluent produced by the treatment works. The term "bypass" does not apply if the diversion does not cause effluent limitations to be exceeded, provided the diversion is to allow essential maintenance to assure efficient operation.
 - (2) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities or treatment processes which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
 - b. Prohibition of bypass.
 - (1) Bypass is prohibited unless:
 - (a) Bypass was necessary to prevent loss of life, personal injury, or severe property damage;
 - (b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering

judgement to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance; and
(c) The permittee submitted notices and requests as required under General Condition B.3.c.

(2) The Director may approve an anticipated bypass, after considering its adverse effects and any alternatives to bypassing, when the Director determines that it will meet the three conditions listed above in General Condition B.3.b.(1).

c. Notice and request for bypass.

(1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior written notice, if possible at least ten days before the date of the bypass.

(2) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in General Condition D.5.

4. Upset

a. Definition. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operation error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or careless or improper operation.

b. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of General Condition B.4.c are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

c. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

(1) An upset occurred and that the permittee can identify the cause(s) of the upset;

(2) The permitted facility was at the time being properly operated;

(3) The permittee submitted notice of the upset as required in General Condition D.5, hereof (24-hour notice); and

(4) The permittee complied with any remedial measures required under General Condition A.3 hereof.

d. Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

5. Treatment of Single Operational Event

For purposes of this permit, A Single Operational Event which leads to simultaneous violations of more than one pollutant parameter shall be treated as a single violation. A single operational event is an exceptional incident which causes simultaneous, unintentional, unknowing (not the result of a knowing act or omission), temporary noncompliance with more than one Clean Water Act effluent discharge pollutant parameter. A single operational event does not include Clean Water Act violations involving discharge without a NPDES permit or noncompliance to the extent caused by improperly designed or inadequate treatment facilities. Each day of a single operational event is a violation.

6. Overflows from Wastewater Conveyance Systems and Associated Pump Stations

a. Definitions

(1) "Overflow" means the diversion and discharge of waste streams from any portion of the wastewater conveyance system including pump stations, through a designed overflow device or structure, other than discharges to the wastewater treatment facility.

- (2) "Severe property damage" means substantial physical damage to property, damage to the conveyance system or pump station which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of an overflow.
 - (3) "Uncontrolled overflow" means the diversion of waste streams other than through a designed overflow device or structure, for example to overflowing manholes or overflowing into residences, commercial establishments, or industries that may be connected to a conveyance system.
- b. Prohibition of overflows. Overflows are prohibited unless:
- (1) Overflows were unavoidable to prevent an uncontrolled overflow, loss of life, personal injury, or severe property damage;
 - (2) There were no feasible alternatives to the overflows, such as the use of auxiliary pumping or conveyance systems, or maximization of conveyance system storage; and
 - (3) The overflows are the result of an upset as defined in General Condition B.4. and meeting all requirements of this condition.
- c. Uncontrolled overflows are prohibited where wastewater is likely to escape or be carried into the waters of the State by any means.
- d. Reporting required. Unless otherwise specified in writing by the Department, all overflows and uncontrolled overflows must be reported orally to the Department within 24 hours from the time the permittee becomes aware of the overflow. Reporting procedures are described in more detail in General Condition D.5.
7. Public Notification of Effluent Violation or Overflow
If effluent limitations specified in this permit are exceeded or an overflow occurs, upon request by the Department, the permittee shall take such steps as are necessary to alert the public about the extent and nature of the discharge. Such steps may include, but are not limited to, posting of the river at access points and other places, news releases, and paid announcements on radio and television.
8. Removed Substances
Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in such a manner as to prevent any pollutant from such materials from entering public waters, causing nuisance conditions, or creating a public health hazard.

SECTION C. MONITORING AND RECORDS

1. Representative Sampling
Sampling and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring points specified in this permit and shall be taken, unless otherwise specified, before the effluent joins or is diluted by any other waste stream, body of water, or substance. Monitoring points shall not be changed without notification to and the approval of the Director.
2. Flow Measurements
Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated and maintained to insure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than ± 10 percent from true discharge rates throughout the range of expected discharge volumes.

3. Monitoring Procedures

Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.

4. Penalties of Tampering

The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than two years, or by both. If a conviction of a person is for a violation committed after a first conviction of such person, punishment is a fine not more than \$20,000 per day of violation, or by imprisonment of not more than four years or both.

5. Reporting of Monitoring Results

Monitoring results shall be summarized each month on a Discharge Monitoring Report form approved by the Department. The reports shall be submitted monthly and are to be mailed, delivered or otherwise transmitted by the 15th day of the following month unless specifically approved otherwise in Schedule B of this permit.

6. Additional Monitoring by the Permittee

If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR 136 or as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report. Such increased frequency shall also be indicated. For a pollutant parameter that may be sampled more than once per day (e.g., Total Chlorine Residual), only the average daily value shall be recorded unless otherwise specified in this permit.

7. Averaging of Measurements

Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean, except for bacteria which shall be averaged as specified in this permit.

8. Retention of Records

Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR part 503), the permittee shall retain records of all monitoring information, including all calibration and maintenance records of all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time.

9. Records Contents

Records of monitoring information shall include:

- a. The date, exact place, time and methods of sampling or measurements;
- b. The individual(s) who performed the sampling or measurements;
- c. The date(s) analyses were performed;
- d. The individual(s) who performed the analyses;
- e. The analytical techniques or methods used; and
- f. The results of such analyses.

10. Inspection and Entry

The permittee shall allow the Director, or an authorized representative upon the presentation of credentials to:

- a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit, and
- d. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by state law, any substances or parameters at any location.

SECTION D. REPORTING REQUIREMENTS

1. Planned Changes

The permittee shall comply with Oregon Administrative Rules (OAR) 340, Division 52, "Review of Plans and Specifications". Except where exempted under OAR 340-52, no construction, installation, or modification involving disposal systems, treatment works, sewerage systems, or common sewers shall be commenced until the plans and specifications are submitted to and approved by the Department. The permittee shall give notice to the Department as soon as possible of any planned physical alternations or additions to the permitted facility.

2. Anticipated Noncompliance

The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

3. Transfers

This permit may be transferred to a new permittee provided the transferee acquires a property interest in the permitted activity and agrees in writing to fully comply with all the terms and conditions of the permit and the rules of the Commission. No permit shall be transferred to a third party without prior written approval from the Director. The permittee shall notify the Department when a transfer of property interest takes place.

4. Compliance Schedule

Reports of compliance or noncompliance with, or any progress reports on interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date. Any reports of noncompliance shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirements.

5. Twenty-Four Hour Reporting

The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally (by telephone) within 24 hours, unless otherwise specified in this permit, from the time the permittee becomes aware of the circumstances. During normal business hours, the Department's Regional office shall be called. Outside of normal business hours, the Department shall be contacted at 1-800-452-0311 (Oregon Emergency Response System).

A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. If the permittee is establishing an affirmative defense of upset or bypass to any offense under ORS 468.922 to 468.946, and in which case if the original reporting notice was oral, delivered written notice must be made to the Department or other agency with regulatory jurisdiction within 4 (four) calendar days. The written submission shall contain:

- a. A description of the noncompliance and its cause;
- b. The period of noncompliance, including exact dates and times;
- c. The estimated time noncompliance is expected to continue if it has not been corrected;
- d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance; and
- e. Public notification steps taken, pursuant to General Condition B.7.

The following shall be included as information which must be reported within 24 hours under this paragraph:

- a. Any unanticipated bypass which exceeds any effluent limitation in this permit.
- b. Any upset which exceeds any effluent limitation in this permit.
- c. Violation of maximum daily discharge limitation for any of the pollutants listed by the Director in this permit.

The Department may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

6. Other Noncompliance

The permittee shall report all instances of noncompliance not reported under General Condition D.4 or D.5, at the time monitoring reports are submitted. The reports shall contain:

- a. A description of the noncompliance and its cause;
- b. The period of noncompliance, including exact dates and times;
- c. The estimated time noncompliance is expected to continue if it has not been corrected; and
- d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

7. Duty to Provide Information

The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine compliance with this permit. The permittee shall also furnish to the Department, upon request, copies of records required to be kept by this permit.

Other Information: When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or any report to the Department, it shall promptly submit such facts or information.

8. Signatory Requirements

All applications, reports or information submitted to the Department shall be signed and certified in accordance with 40 CFR 122.22.

9. Falsification of Reports

Under ORS 468.953, any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance, is subject to a Class C felony punishable by a fine not to exceed \$100,000 per violation and up to 5 years in prison.

10. Changes to Indirect Dischargers - [Applicable to Publicly Owned Treatment Works (POTW) only]

The permittee must provide adequate notice to the Department of the following:

- a. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to section 301 or 306 of the Clean Water Act if it were directly discharging those pollutants and;
- b. Any substantial change in the volume or character of pollutants being introduced into the POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
- c. For the purposes of this paragraph, adequate notice shall include information on (i) the quality and quantity of effluent introduced into the POTW, and (ii) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

11. Changes to Discharges of Toxic Pollutant - [Applicable to existing manufacturing, commercial, mining, and silvicultural dischargers only]

The permittee must notify the Department as soon as they know or have reason to believe of the following:

- a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:
 - (1) One hundred micrograms per liter (100 ug/l);

- (2) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;
 - (3) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or
 - (4) The level established by the Department in accordance with 40 CFR 122.44(f).
- b. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
- (1) Five hundred micrograms per liter (500 ug/l);
 - (2) One milligram per liter (1 mg/l) for antimony;
 - (3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or
 - (4) The level established by the Department in accordance with 40 CFR 122.44(f).

SECTION E. DEFINITIONS

1. BOD means five-day biochemical oxygen demand.
2. TSS means total suspended solids.
3. Mg/l means milligrams per liter.
4. Kg means kilograms.
5. M³/d means cubic meters per day.
6. MGD means million gallons per day.
7. Composite sample means a sample formed by collecting and mixing discrete samples taken periodically and based on time or flow.
8. FC means fecal coliform bacteria.
9. Technology based permit effluent limitations means technology-based treatment requirements as defined in 40 CFR 125.3, and concentration and mass load effluent limitations that are based on minimum design criteria specified in OAR 340-41.
10. CBOD means five day carbonaceous biochemical oxygen demand.
11. Grab sample means an individual discrete sample collected over a period of time not to exceed 15 minutes.
12. Quarter means January through March, April through June, July through September, or October through December.
13. Month means calendar month.
14. Week means a calendar week of Sunday through Saturday.
15. Total residual chlorine means combined chlorine forms plus free residual chlorine.
16. The term "bacteria" includes but is not limited to fecal coliform bacteria, total coliform bacteria, and E. coli bacteria.
17. POTW means a publicly owned treatment works.

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**GENERAL PERMIT
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
WASTE DISCHARGE PERMIT**

Oregon Department of Environmental Quality
811 S.W. Sixth Avenue
, Portland, OR 97204
Telephone: (503) 229-5279/6962

Issued pursuant to ORS 468B.050 and The Federal Clean Water Act

ISSUED TO:

All owners or operators of facilities discharging pollutants that are covered by this permit. The submittal of an approved application and payment of applicable fees are required.

SOURCES COVERED BY THIS PERMIT:

Wet storage facilities (log ponds) that do not receive domestic sewage or process wastewater and that discharge to surface waters; non-discharging evaporative pond; facilities that use cold deck sprinkling or have log yard runoff where sprinkling occurs.

ISSUED TO:

SOURCES COVERED BY THIS PERMIT:

~~Wet storage facilities (log ponds) that receive no domestic sewage and process wastewater; cold deck sprinkling; and log yard runoff where sprinkling occurs.~~

*Michael Downs T. Llewelyn, Administrator
Water Quality Division*

Issued:

Effective:

PERMITTED ACTIVITIES

Until this permit expires or is modified or revoked, the permittee is authorized to construct, install, modify, or operate a wastewater collection, treatment, control and/or disposal system, and discharge to public waters of the State adequately treated wastewater only from the authorized discharge point or points established in Schedule A and only in conformance with all the requirements, limitations, and conditions set forth in the attached schedules as follows:

	<u>Page</u>
<i>Summary of Application Requirements</i>	2
<i>Schedule A - Waste Discharge Limitations, Benchmark, and Controls</i>	3-4
<i>Schedule B - Monitoring and Reporting Requirements</i>	35
<i>Schedule C - Compliance Conditions and Schedules</i>	-5
<i>Schedule D - Special Conditions</i>	45
<i>Schedule E - Pretreatment Activities</i>	N/A
<i>Schedule F - General Conditions</i>	56-13

Unless specifically authorized by this permit, by another NPDES or WPCF permit, or by Oregon Administrative Rule, any other direct or indirect discharge to waters of the state is prohibited, including discharges to an underground injection control system.

SUMMARY OF APPLICATION REQUIREMENTS FOR PERMIT COVERAGE

1. *New Facilities Can Obtain Coverage By The Following Steps:*

- a. *Notify the Department by submitting a completed application form requesting coverage under this permit at least 180 days prior to the planned activity that will result in the discharge to waters of the state.*

~~Each other direct and indirect waste discharge to waters of the State is prohibited unless covered by another NPDES or WPCF permit.~~

SCHEDULE A

- b. *Submit all applicable fees with the application prior to obtaining coverage.*

Waste Discharge Limitations not to be Exceeded by Facilities Covered by this General Permit:

- c. *The Department will review the application information and will either request additional information in writing or will notify the applicant by mail that it has received coverage and is authorized to operate under the conditions of this permit. If the applicant's operation cannot be approved for coverage under the general permit, the applicant may need to obtain an individual permit.*

~~1.a. May 1 - October 31: No discharge is permitted from log ponds, log decks and log yards where sprinkling occurs.*~~

~~1.b. November 1 - April 30: Discharge is permitted provided that at least a 50:1 dilution is available in the receiving stream and the following limitations are met:*~~

<u>Parameters</u>	<u>Limitations (maximum daily)</u>
Flow	As low as practicable as necessitated by precipitation
pH	6.0 - 9.0

~~* If due to unseasonable wet weather or other reasons beyond the control of the permittee, it becomes necessary to discharge from a log pond during the May 1 through October 31 period or at a time when a 50:1 dilution is not available, the discharge may be permitted upon written approval by the Department.~~

~~2. Existing Facilities Requiring Renewal Can Renew Coverage By The Following Steps:~~

- ~~a. Notify the Department by submitting a complete application form 180 days prior to permit expiration.~~

~~2. Notwithstanding the effluent limitations established by this permit except as provided in OAR 340-45-080, no wastes shall be discharged and no activities shall be conducted which will violate Water Quality Standards as adopted in OAR Chapter 340, Division 41 except in the following defined mixing zone:~~

- ~~b. Submit all applicable fees with the permit renewal application.~~

~~The allowable mixing zone shall not extend downstream beyond a distance of 100 feet from the point of discharge and shall not exceed one-half the width of the receiving stream.~~

- ~~c. The Department will review the application for any substantial changes at the facility or any site-specific requirements such as waste load allocations that could affect coverage. The applicant will be notified if coverage cannot continue under the general permit. In that event, the applicant may need to obtain an individual permit.~~

~~3. The log pond overflow and drainage ways from log yards shall be baffled and screened or otherwise controlled to prevent the discharge of debris, floating solids and oil.~~

- ~~d. The existing permit will continue to be effective through administrative extension after the permit expiration date if the permittee submits a complete renewal application.~~

~~4. No sewage or process wastewater** shall be discharged to the log pond.~~

e. *The Department will notify the applicant by mail that it has received coverage and is authorized to operate under the conditions of the new permit.*

~~** Process wastewater does not include cold deck sprinkling water, yard runoff, boiler blowdown, boiler scrubber water, non-contact cooling water, or fire deluge water. When these wastestreams are discharged to the log ponds, sufficient recirculation must occur in order to prevent discharge except during the wet weather months.~~

~~5. No discharge is permitted during log pond dredging operations. Log ponds shall not be drained or dredged without prior written approval from the Department. All dredged material from the pond shall be stored in a manner which will prevent them from contaminating surface waters.~~

SCHEDULE B**MINIMUM MONITORING AND REPORTING REQUIREMENTS**

1. During periods of discharge, facilities shall monitor at the following frequency:

Item or Parameter	Minimum Frequency	Type of Sample
Effluent Flow (mgd)	Weekly	Measure
pH	Weekly	Grab
Receiving Stream Flow (cfs)*	Weekly	Estimate/Measure
Oil & Grease	1/month	Grab
Total Suspended Solids	1/month	Composite
Biochemical Oxygen Demand	1/month	Composite

* Monitoring for receiving stream flow shall occur on the same day as monitoring for effluent flow.

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SCHEDULE A

WASTE DISCHARGE LIMITATIONS, BENCHMARK, AND CONTROLS

~~2. Monitoring results shall be reported on approved forms. The reporting period is the calendar month when discharge occurs. Reports must be submitted to the Department by the 15th day of the following month. No reporting is required during months when there is no discharge.~~

SCHEDULE D

1. No discharge is allowed from May 1 - October 31 from log ponds, log decks and log yards where sprinkling occurs^a.

SPECIAL CONDITIONS

1. ~~The Director may revoke a general permit as it applies to any person and require such person to apply for and obtain an individual NPDES permit if:~~
2. ~~Discharge is allowed from November 1 - April 30 provided that at least a 50:1 dilution is available in the receiving stream and the following effluent limitations are met^a:~~

<i>Parameter</i>	<i>Limitation (daily maximum)</i>
<i>Flow</i>	<i>As low as practicable as necessitated by precipitation</i>
<i>pH</i>	<i>Shall be between 6.0 and 9.0</i>
<i>Debris</i>	<i>No debris shall be discharged</i>
<i>Oil & Grease Sheen</i>	<i>No visible sheen</i>
<i>Temperature</i>	<i>77° F</i>

Note:

~~The permitted source or activity is a significant contributor of pollution or creates other environmental problems;. If unseasonably wet weather or other reasons beyond the control of the permittee necessitate discharge from a log pond during the May 1 through October 31 period or at a time when a 50:1 dilution is not available, the discharge may be permitted upon prior written approval by the Department.~~

~~b. The permittee is not in compliance with the terms and conditions of this general permit; or~~

~~e. Conditions or standards have changed so that the source or activity no longer qualifies for a general permit.~~

3. *The waste discharge benchmark is a guideline concentration, not a limitation. The benchmark is designed to assist the permittee in determining whether pollution controls and/or management practices are being implemented to reduce the pollutant concentration to below levels of concern. If a benchmark is not achieved, the permittee shall review the operation of the log pond and other potential sources of the pollutant within 30 days of receiving sampling results and evaluate any additional technically and economically feasible site controls and/or management actions that can be implemented to improve the quality of the discharge. Permittee shall implement those site controls and management actions that are reasonable and prudent. Permittee shall document and keep on file a summary of the analysis, evaluation, and decisions made regarding site controls or management actions. Permittee must make those documents available to the Department upon request.*
2. ~~Any permittee not wishing to be covered or limited by this general permit may make application for an individual NPDES permit in accordance with NPDES procedures in OAR 340-45-030.~~

3. ~~Within 180 days of notice from the Department, the permittee shall prepare and submit a temperature management plan. Unless the Department notifies the permittee stating that the plan is inadequate, the plan shall become part of the permit and shall be implemented by the permittee.~~

<i>Parameter</i>	<i>Benchmark (daily maximum)</i>
<i>Total Suspended Solids</i>	<i>100 mg/l</i>

4. *The log pond overflow and drainage ways from log yards shall be baffled, screened, and/or otherwise controlled (e.g., absorbent materials) to prevent the discharge of bark and other woody debris, oil and grease, and floating solids.*
5. *No sewage or process wastewater^b shall be discharged to the log pond.*

Note:

- b. *Process wastewater does not include cold deck sprinkling water, yard runoff, boiler blowdown, boiler scrubber water, non-contact cooling water, or fire deluge water. When these wastestreams are discharged to the log ponds, sufficient recirculation must occur in order to prevent discharge to state waters except during the wet weather months.*
6. *Except as provided for in OAR 340-045-0080, no wastes may be discharged and no activities may be conducted which violate Water Quality Standards as adopted in OAR 340-041 except in the following defined mixing zone:*
- The allowable mixing zone shall not exceed a maximum distance of 100 feet in the downstream direction from the point of discharge and shall not exceed one-half the width of the receiving stream.*
7. *No discharge from the log pond is permitted during log pond dredging operations. If possible, log pond dredging should be conducted during the summer season. A log pond shall not be drained or dredged without prior written approval from the Department. All dredged material from the pond shall be disposed in a manner that will prevent a discharge to surface waters.*
8. *The effluent limitation and other conditions (Schedule B) in this permit related to temperature constitute the surface water temperature management plan (temperature management plan) required by OAR 340-041-0026(3)(a)(D) applicable to the permittee. Provided that the permittee complies with this temperature management plan, the permittee will be deemed to be in compliance with the state temperature water quality standard and not to be causing or contributing to a violation of the water quality standards for temperature. If a TMDL analysis or other monitoring information indicates the discharge has potential to impact the receiving water that is water quality limited for temperature, the Department may require development and implementation of an updated temperature management plan.*
9. *Water Quality Limited Streams - If Total Maximum Daily Loads are established and the discharge from a permitted source is determined to be a significant contributor for a stream that is water quality limited, the Department may terminate the permittee's coverage and require application for an individual permit or different general permit that would include waste load allocations.*

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10. *Non-discharging wet storage facilities (e.g., evaporative pond) shall be managed to prevent:*

- a. *The creation of odors, fly and mosquito breeding or other nuisance conditions; and*
- b. *Violation of the Department's groundwater quality protection rules (OAR 340-040).*

SCHEDULE B
MINIMUM MONITORING AND REPORTING REQUIREMENTS

1. *Effluent Discharge: During periods of discharge, facilities shall monitor at the following minimum frequency:*

<i>Item or Parameter</i>	<i>Minimum Frequency</i>	<i>Type of Sample</i>
<i>Effluent Flow^a (mgd)</i>	<i>Weekly</i>	<i>Measure</i>
<i>Receiving Stream Flow^a (cfs)</i>	<i>Weekly</i>	<i>Estimate/Measure</i>
<i>pH^b</i>	<i>Weekly</i>	<i>Grab</i>
<i>Total Suspended Solids</i>	<i>Monthly</i>	<i>Grab</i>
<i>Temperature^c</i>	<i>Weekly</i>	<i>Measure</i>
<i>Inspect for Oil & Grease Sheen</i>	<i>Weekly</i>	<i>Record observations</i>
<i>Inspect for Debris</i>	<i>Weekly</i>	<i>Record observations</i>
<i>Inspect Screen and other Effluent Quality Controls</i>	<i>Weekly</i>	<i>Record observations</i>

Notes:

- a. *Monitoring for effluent flow and receiving stream flow shall occur on the same day.*
 - b. *The following may be used for the measurement of pH: pH paper that has the capability of determining pH to one-tenths (0.1) standard units or a proper calibrated pH meter.*
 - c. *Monitoring for temperature is required during the months of November and April.*
2. *Records for inspection of the screen and other effluent control devices and any corrective action shall be recorded and maintained in a log book that is kept on-site and shall be made available for review when requested by the Department.*

SCHEDULE F
NPDES GENERAL CONDITIONS

SECTION A. STANDARD CONDITIONS

1. ~~Duty to Comply~~
3. *Monitoring results shall be reported monthly on approved forms. Reports must be submitted to the Department by the 15th day of the following month. During a month when a discharge does not occur the discharge monitoring form shall include a statement indicating that there was no discharge.*

SCHEDULE C
COMPLIANCE CONDITIONS

1. *Upon notice by the Department the permittee shall develop and submit for approval an updated temperature management plan.*

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SCHEDULE D
SPECIAL CONDITIONS

1. *Any permittee not wishing to be covered or limited by this general permit may make application for an individual NPDES permit in accordance with NPDES procedures in OAR 340-045-0030.*

SCHEDULE F
NPDES GENERAL CONDITIONS

SECTION A. STANDARD CONDITIONS

1. Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of Oregon Revised Statutes (ORS) 468B.025 and is grounds for enforcement action; for permit termination, suspension, or modification; or for denial of a permit renewal application.

2. Penalties for Water Pollution and Permit Condition Violations

Oregon Law (ORS 468.140) allows the Director to impose civil penalties up to \$10,000 per day for violation of a term, condition, or requirement of a permit.

Under ORS 468.943, unlawful water pollution, if committed by a person with criminal negligence, is punishable by a fine of up to \$25,000 or by imprisonment for not more than one year, or by both. Each day on which a violation occurs or continues is a separately punishable offense.

Under ORS 468.946, a person who knowingly discharges, places or causes to be placed any waste into the waters of the state or in a location where the waste is likely to escape into the waters of the state, is subject to a Class B felony punishable by a fine not to exceed \$200,000 and up to 10 years in prison.

3. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. In addition, upon request of the Department, the permittee shall correct any adverse impact on the environment or human health resulting from noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

4. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and to have the permit renewed. The application shall be submitted at least 180 days before the expiration date of this permit.

The Director may grant permission to submit an application less than 180 days in advance but no later than the permit expiration date.

5. Permit Actions

This permit may be modified, suspended, revoked and reissued, or terminated for cause including, but not limited to, the following:

- a. *Violation of any term, condition, or requirement of this permit, a rule, or a statute;*
- b. *Obtaining this permit by misrepresentation or failure to disclose fully all material facts; or*
- c. ~~—e.—~~ *A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.*

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~~The filing of a request by the permittee for a permit modification or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.~~

- d. *The permittee shall pay the fees required to be filed with this permit application and to be paid annually for permit compliance determination as outlined in the Oregon Administrative Rules, Chapter 340, Division 45.*

The filing of a request by the permittee for a permit modification or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

6. Toxic Pollutants

The permittee shall comply with any applicable effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

7. Property Rights

The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.

8. Permit References

Except for effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants and standards for sewage sludge use or disposal established under Section 405(d) of the Clean Water Act, all rules and statutes referred to in this permit are those in effect on the date this permit is issued.

SECTION B. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls, and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

2. Duty to Halt or Reduce Activity

For industrial or commercial facilities, upon reduction, loss, or failure of the treatment facility, the permittee shall, to the extent necessary to maintain compliance with its permit, control production or all discharges or both until the facility is restored or an alternative method of treatment is provided. This requirement applies, for example, when the primary source of power of the treatment facility fails or is reduced or lost. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

3. Bypass of Treatment Facilities

a. Definitions

- (1) *"Bypass" means intentional diversion of waste streams from any portion of the treatment facility. The term "bypass" does not include nonuse of singular or multiple units or processes of a treatment works when the nonuse is insignificant to the quality and/or quantity of the effluent produced by the treatment works. The term "bypass" does not apply*

if the diversion does not cause effluent limitations to be exceeded, provided the diversion is to allow essential maintenance to assure efficient operation.

- (2) *"Severe property damage" means substantial physical damage to property, damage to the treatment facilities or treatment processes which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.*

b. *Prohibition of bypass.*

- (1) *Bypass is prohibited unless:*

(a) *Bypass was necessary to prevent loss of life, personal injury, or severe property damage;*

(b) *There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgement to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance; and*

(c) *The permittee submitted notices and requests as required under General Condition B.3.c.*

- (2) *The Director may approve an anticipated bypass, after considering its adverse effects and any alternatives to bypassing, when the Director determines that it will meet the three conditions listed above in General Condition B.3.b.(1).*

c. *Notice and request for bypass.*

(1) *Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior written notice, if possible at least ten days before the date of the bypass.*

(2) *Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in General Condition D.5.*

4. Upset

a. *Definition. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operation error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or careless or improper operation.*

b. *Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of General Condition B.4.c are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.*

c. *Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:*

- (1) *An upset occurred and that the permittee can identify the causes(s) of the upset;*
- (2) *The permitted facility was at the time being properly operated;*
- (3) *The permittee submitted notice of the upset as required in General Condition D.5, hereof (24-hour notice); and*
- (4) *The permittee complied with any remedial measures required under General Condition A.3 hereof.*

d. *Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.*

5. *Treatment of Single Operational Event*

For purposes of this permit, A Single Operational Event which leads to simultaneous violations of more than one pollutant parameter shall be treated as a single violation. A single operational event is an exceptional incident which causes simultaneous, unintentional, unknowing (not the result of a knowing act or omission), temporary noncompliance with more than one Clean Water Act effluent discharge pollutant parameter. A single operational event does not include Clean Water Act violations involving discharge without a NPDES permit or noncompliance to the extent caused by improperly designed or inadequate treatment facilities. Each day of a single operational event is a violation.

6. *Overflows from Wastewater Conveyance Systems and Associated Pump Stations*

a. *Definitions*

- (1) *"Overflow" means the diversion and discharge of waste streams from any portion of the wastewater conveyance system including pump stations, through a designed overflow device or structure, other than discharges to the wastewater treatment facility.*
- (2) *"Severe property damage" means substantial physical damage to property, damage to the conveyance system or pump station which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of an overflow.*
- (3) *"Uncontrolled overflow" means the diversion of waste streams other than through a designed overflow device or structure, for example to overflowing manholes or overflowing into residences, commercial establishments, or industries that may be connected to a conveyance system.*

b. *Prohibition of overflows. Overflows are prohibited unless:*

- (1) *Overflows were unavoidable to prevent an uncontrolled overflow, loss of life, personal injury, or severe property damage;*
- (2) *There were no feasible alternatives to the overflows, such as the use of auxiliary pumping or conveyance systems, or maximization of conveyance system storage; and*

(3) *The overflows are the result of an upset as defined in General Condition B.4. and meeting all requirements of this condition.*

c. *Uncontrolled overflows are prohibited where wastewater is likely to escape or be carried into the waters of the State by any means.*

d. *Reporting required. Unless otherwise specified in writing by the Department, all overflows and uncontrolled overflows must be reported orally to the Department within 24 hours from the time the permittee becomes aware of the overflow. Reporting procedures are described in more detail in General Condition D.5.*

7. *Public Notification of Effluent Violation or Overflow*

If effluent limitations specified in this permit are exceeded or an overflow occurs, upon request by the Department, the permittee shall take such steps as are necessary to alert the public about the extent and nature of the discharge. Such steps may include, but are not limited to, posting of the river at access points and other places, news releases, and paid announcements on radio and television.

8. *Removed Substances*

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in such a manner as to prevent any pollutant from such materials from entering public waters, causing nuisance conditions, or creating a public health hazard.

SECTION C. MONITORING AND RECORDS

1. *Representative Sampling*

Sampling and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring points specified in this permit and shall be taken, unless otherwise specified, before the effluent joins or is diluted by any other waste stream, body of water, or substance. Monitoring points shall not be changed without notification to and the approval of the Director.

2. *Flow Measurements*

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated and maintained to insure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than ± 10 percent from true discharge rates throughout the range of expected discharge volumes.

3. *Monitoring Procedures*

Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.

4. *Penalties of Tampering*

The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than two years, or by both. If a conviction of a person is for a violation committed after a first conviction of such person, punishment is a fine not more than \$20,000 per day of violation, or by imprisonment of not more than four years or both.

5. Reporting of Monitoring Results

Monitoring results shall be summarized each month on a Discharge Monitoring Report form approved by the Department. The reports shall be submitted monthly and are to be mailed, delivered or otherwise transmitted by the 15th day of the following month unless specifically approved otherwise in Schedule B of this permit.

6. Additional Monitoring by the Permittee

If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR 136 or as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report. Such increased frequency shall also be indicated. For a pollutant parameter that may be sampled more than once per day (e.g., Total Chlorine Residual), only the average daily value shall be recorded unless otherwise specified in this permit.

7. Averaging of Measurements

Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean, except for bacteria which shall be averaged as specified in this permit.

8. Retention of Records

Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR part 503), the permittee shall retain records of all monitoring information, including all calibration and maintenance records of all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time.

9. Records Contents

Records of monitoring information shall include:

- a. The date, exact place, time and methods of sampling or measurements;*
- b. The individual(s) who performed the sampling or measurements;*
- c. The date(s) analyses were performed;*
- d. The individual(s) who performed the analyses;*
- e. The analytical techniques or methods used; and*
- f. The results of such analyses.*

10. Inspection and Entry

The permittee shall allow the Director, or an authorized representative upon the presentation of credentials to:

- a. *Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;*
- b. *Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;*
- c. *Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit, and*
- d. *Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by state law, any substances or parameters at any location.*

SECTION D. REPORTING REQUIREMENTS

1. Planned Changes

The permittee shall comply with Oregon Administrative Rules (OAR) 340, Division 52, "Review of Plans and Specifications". Except where exempted under OAR 340-52, no construction, installation, or modification involving disposal systems, treatment works, sewerage systems, or common sewers shall be commenced until the plans and specifications are submitted to and approved by the Department. The permittee shall give notice to the Department as soon as possible of any planned physical alternations or additions to the permitted facility.

2. Anticipated Noncompliance

The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

3. Transfers

This permit may be transferred to a new permittee provided the transferee acquires a property interest in the permitted activity and agrees in writing to fully comply with all the terms and conditions of the permit and the rules of the Commission. No permit shall be transferred to a third party without prior written approval from the Director. The permittee shall notify the Department when a transfer of property interest takes place.

4. Compliance Schedule

Reports of compliance or noncompliance with, or any progress reports on interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date. Any reports of noncompliance shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirements.

5. Twenty-Four Hour Reporting

The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally (by telephone) within 24 hours, unless otherwise specified in this permit, from the time the permittee becomes aware of the circumstances. During normal business hours,

the Department's Regional office shall be called. Outside of normal business hours, the Department shall be contacted at 1-800-452-0311 (Oregon Emergency Response System).

A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. If the permittee is establishing an affirmative defense of upset or bypass to any offense under ORS 468.922 to 468.946, and in which case if the original reporting notice was oral, delivered written notice must be made to the Department or other agency with regulatory jurisdiction within 4 (four) calendar days. The written submission shall contain:

- a. A description of the noncompliance and its cause;*
- b. The period of noncompliance, including exact dates and times;*
- c. The estimated time noncompliance is expected to continue if it has not been corrected;*
- d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance; and*
- e. Public notification steps taken, pursuant to General Condition B.7.*

The following shall be included as information which must be reported within 24 hours under this paragraph:

- a. Any unanticipated bypass which exceeds any effluent limitation in this permit.*
- b. Any upset which exceeds any effluent limitation in this permit.*
- c. Violation of maximum daily discharge limitation for any of the pollutants listed by the Director in this permit.*

The Department may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

6. Other Noncompliance

The permittee shall report all instances of noncompliance not reported under General Condition D.4 or D.5, at the time monitoring reports are submitted. The reports shall contain:

- a. A description of the noncompliance and its cause;*
- b. The period of noncompliance, including exact dates and times;*
- c. The estimated time noncompliance is expected to continue if it has not been corrected; and*
- d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.*

7. Duty to Provide Information

The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine compliance with this permit. The permittee shall also furnish to the Department, upon request, copies of records required to be kept by this permit.

Other Information: When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or any report to the Department, it shall promptly submit such facts or information.

8. Signatory Requirements

All applications, reports or information submitted to the Department shall be signed and certified in accordance with 40 CFR 122.22.

9. Falsification of Reports

Under ORS 468.953, any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance, is subject to a Class C felony punishable by a fine not to exceed \$100,000 per violation and up to 5 years in prison.

10. Changes to Indirect Dischargers - [Applicable to Publicly Owned Treatment Works (POTW) only]

The permittee must provide adequate notice to the Department of the following:

- a. *Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to section 301 or 306 of the Clean Water Act if it were directly discharging those pollutants and;*
- b. *Any substantial change in the volume or character of pollutants being introduced into the POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.*
- c. *For the purposes of this paragraph, adequate notice shall include information on (i) the quality and quantity of effluent introduced into the POTW, and (ii) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.*

11. Changes to Discharges of Toxic Pollutant - [Applicable to existing manufacturing, commercial, mining, and silvicultural dischargers only]

The permittee must notify the Department as soon as they know or have reason to believe of the following:

- a. *That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":*
 - (1) *One hundred micrograms per liter (100 µgug/l);*
 - (2) *Two hundred micrograms per liter (200 µgug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µgug/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;*
 - (3) *Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or*
 - (4) *The level established by the Department in accordance with 40 CFR 122.44(f).*
- b. *That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":*
 - (1) *Five hundred micrograms per liter (500 µgug/l);*

- (2) One milligram per liter (1 mg/l) for antimony;
- (3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or
- (4) The level established by the Department in accordance with 40 CFR 122.44(f).

SECTION E. DEFINITIONS

1. BOD means five-day biochemical oxygen demand.
2. TSS means total suspended solids.
3. Mg/l means milligrams per liter.
4. Kg means kilograms.
5. M³/d means cubic meters per day.
6. MGD means million gallons per day.
7. Composite sample means a sample formed by collecting and mixing discrete samples taken periodically and based on time or flow.
8. FC means fecal coliform bacteria.
9. Technology based permit effluent limitations means technology-based treatment requirements as defined in 40 CFR 125.3, and concentration and mass load effluent limitations that are based on minimum design criteria specified in OAR 340-41.
10. CBOD means five day carbonaceous biochemical oxygen demand.
11. Grab sample means an individual discrete sample collected over a period of time not to exceed 15 minutes.
12. Quarter means January through March, April through June, July through September, or October through December.
13. Month means calendar month.
14. Week means a calendar week of Sunday through Saturday.
15. Total residual chlorine means combined chlorine forms plus free residual chlorine.
16. The term "bacteria" includes but is not limited to fecal coliform bacteria, total coliform bacteria, and E. coli bacteria.
17. POTW means a publicly owned treatment works.

Attachment C
Public Input and Department's Response

State of Oregon
Department of Environmental Quality

Memorandum

To: Mike Llewelyn
Water Quality Division Administrator **Date:** August 1, 2002

From: James Cowan through Mike Kortenhof
Surface Water Management Section

Subject: Summary of comments received and DEQ responses to proposed amendments to OAR 340-045-0033, adopting water quality general permit renewals for NPDES 300-J fish hatcheries and NPDES 400-J log ponds.

Overview

Comment period DEQ held public hearings on May 21, 22, and 23, 2002, at 7 p.m. in Roseburg, Bend, and Portland, respectively. A total of three people attended and one person provided oral comment. The public comment period opened on April 15, 2002 and closed at 5 p.m. on May 28, 2002. Two commenters submitted written comments during this period, including one who also commented at a hearing.

Process of summarizing comments and providing responses Due to the similar nature of many comments, summaries of individual comments are not provided here. Comments are summarized in categories and responses provided. To focus on the comment rather than who made it, numbers are cited in the summaries that reference the people who provided comment.

List of Commenters The two people providing comment and their corresponding reference numbers are listed at the end of this memo.



Organization of comments and responses	Comments and responses are organized into three categories: <ul style="list-style-type: none">• General comment• Comment on specific provisions in the NPDES 300-J fish hatchery general permit• Comment on specific provisions in the NPDES 400-J log pond general permit
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General comment

Comment #1 Commenter 1 and 2 contend the permits lack a legal and scientific basis and do not support restoration of beneficial uses. They support the development of a pollution prevention plan but contend that it should not justify a lack of characterization of the waste discharge. Specifically they state that these facilities do not meet the requirements for issuing a general permit; additional information of the wastewater characteristics should be collected prior to issuance of the permit; an individual permit or basin-specific general permit should be considered for these sources; and the proposed permits are less stringent than existing permits.

Response DEQ believes that the proposed permits are protective of beneficial uses and are not less stringent than the existing permits. DEQ believes the effluent limitations, monitoring requirements, and compliance plans and reports will adequately control discharges to receiving streams.

As stated in the Evaluation Report for the fish hatchery permit, DEQ reviewed effluent information for parameters of concern from a few fish hatcheries with significantly similar operations and determined that additional effluent limitations are not warranted at this time. The best indicator to control discharge quality is the solids concentration because this corresponds to the design and operation at a hatchery. Use of sedimentation and cleaning techniques have generally achieved the solids effluent limitations and is also an adequate indicator for BOD removal. To further evaluate site specific information and provide more conclusive data, we are proposing to expand the monitoring and reporting for temperature, nutrients, chemical use. The new monitoring information will be used during the development of the next permit renewal in 2007.

As stated in the Evaluation Report for the log pond permit, DEQ reviewed effluent information and decided to discontinue monitoring for BOD and oil and grease but added a requirement to perform visual observations for debris and oil and grease. DEQ also determined that effluent limitations did not need to be developed because discharge concentrations were not at levels of concern.

DEQ does not find evidence to support postponing the proposed adoption of the permits. Moving forward with the proposed permits at this time will improve the protection of water quality at these operations.

DEQ believes that fish hatchery and log pond operations clearly meet the requirements for issuing a general permit (OAR 340-045-0033). Use of this type of permitting program is an effective tool for the protection of water quality and is a wise use of DEQ's wastewater permitting program resources. No changes to the permits were made.

Comment #2

Commenter 1 is concerned about DEQ's delay in renewing a permit after it is has expired and states that administrative extensions of permits should be an exception.

Response

DEQ recently revised the procedures for issuing general permits to require the EQC to adopt water quality general permits as rule before they can be assigned to permittees. This change strengthens the general permitting process by providing notice and opportunity for public comment on general permits, and makes water quality general permitting consistent with similar permitting in DEQ's air quality program.

However, the rule change has significantly increased staff workload for reissuing these general permits. DEQ has not had resources to propose some renewals before they have expired. DEQ has administratively extended the permits pursuant to OAR 340-045-0040 so that existing permittees can continue their operations pending permit renewal.

Comment #3 Commenter 1 wanted to know whether the lists of existing permittees provided in the rulemaking public notice is exclusive and whether DEQ notifies the public of new applications or allows the public to review those applications.

Response The list provided in the public notice for this rulemaking included all existing permittees for both general permits. DEQ may assign new facilities to these general permits after they are renewed. DEQ does not notify the public of new applications or assignments. If new applicants meet the permit's "Sources Covered" requirements, DEQ assigns them to the general permit without public notice. DEQ provides lists of the facilities assigned to general permits upon request; the lists are also available from our website: <http://www.deq.state.or.us/wq/SISData/FacilityHome.asp>.

Comment on specific provisions in the NPDES 300-J fish hatchery general permit

Comment #4 Commenter 2 notes that the proposed permit fails to cover hatcheries that produce less than 20,000 pounds of fish and asks how many hatcheries do not require a permit and where they are located.

Response The production threshold for sources covered by this permit is consistent with the definition of a concentrated aquatic animal production facility (40 CFR Part 122.24 Appendix C). If facilities that produce less than 20,000 lbs/day of fish cause violations of water quality standards, DEQ can require these facilities to apply for a general or individual permit. DEQ does not have information on the number or location of hatcheries below the permitting threshold.

Comment #5 Commenter 1 states that fish feed can contain a variety of chemical ingredients and the permit should require reporting to address this concern.

Response DEQ has reviewed information on the chemicals in fish feed and concluded the feed will not cause violations of water quality standards for any parameters. The proposed permit does require permittees to develop pollution prevention plans that includes comprehensive evaluation of all potential sources of pollution that could affect the quality of discharge water, including feeding operations, and require best management practices to minimize discharge of pollutants. Oregon Department of Fish and Wildlife (ODFW) is independently evaluating the selection process for fish feed suppliers and potential human health concerns related to fish consumption. No change to the permit was made.

Comment #6 Commenter 1 suggests the effluent limitation for pH be changed to a range of 6.5 - 8.5 (from 6.0 – 9.0 S.U.) for consistency with various basin-specific water quality objectives. Commenter 2 is also concerned that a reduction in the frequency of pH monitoring violates the antibacksliding policy.

Response Some basin standards allow an upper range pH of 9. DEQ has set the pH effluent limitation at the point of discharge; the basin standard for pH applies at the edge of the mixing zone. The effluent limitation allows for some dilution to occur within the mixing zone so that water quality standards are met at the edge of the mixing zone.

A reduction in monitoring frequency does not relate to the antibacksliding policy. The antibacksliding policy refers to effluent limitations that are less stringent than comparable effluent limitations in previous permits. Prior monitoring at hatcheries under the existing permit shows consistent compliance with the pH standard, so a reduction from monthly to quarterly sampling is justified. No change to the permit was made.

Comment #7 Commenters 1 and 2 suggest that the 30-foot mixing zone should not apply to all facilities assigned to the permit. They contend the mixing zone may not be as small as feasible on specific streams and may not meet other applicable requirements, such as no acute toxicity.

Response DEQ believes that the assigned mixing zone is of minimal dimensions. The assigned width of the mixing zone is dynamic and during low stream flow is correspondingly reduced to no more than half of the stream width. DEQ has no evidence that discharges from fish hatcheries are toxic and believes the mixing zone and other permit requirements will protect beneficial uses. No change to the permit was made.

Comment #8 Commenters 1 and 2 are concerned about a potential for toxicity from chemical use at these facilities. They state that Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) label requirements do not assure compliance with the requirements of the Clean Water Act. They believe monitoring for toxics is necessary and reliance only on best management practices (BMPs) is inappropriate. They want to know what information DEQ relied on to determine that discharges will comply with water quality standards and why this information is considered applicable to all hatcheries. They comment that formalin (an approved aquaculture drug used as a parasiticide and fungicide) is a known carcinogen and want to know whether the permit allows discharge of other carcinogens.

They do not believe that yearly reporting of chemical use will allow timely communication of improper use or unapproved chemical use and suggest reporting in the monthly discharge monitoring report (DMR). They also request that on-site recordkeeping of daily chemical use that is available to the Department upon request also be available to members of the public.

Response DEQ is concerned about the proper use of chemicals to prevent and treat fish diseases and effects on water quality. The proposed permit further defines which chemicals can be used, significantly expands the reporting requirements for chemical use, and requires specific procedures to control the discharge of chemicals through the pollution prevention plan. It does not rely solely on FIFRA regulations to satisfy water quality standards.

DEQ evaluated data on formalin in wastewater discharges from a few fish hatcheries considered to be representative. Concentrations were undetectable. DEQ does not agree that additional monitoring of chemical use is necessary for all facilities covered by the general permit. Instead, DEQ is requiring annual reporting of chemical use to enable tracking of overall usage and evaluation of wastewater quality, without more extensive sampling at this time.

DEQ has not reviewed data on FIFRA-approved chemicals for fish diseases to determine whether they are carcinogenic. DEQ requires permittees to submit information necessary to determine compliance with permit conditions and water quality standards.

The annual reports on chemical use submitted to DEQ will be accessible to the public under the state's public records law. Records located at the hatcheries that are used by DEQ for compliance evaluation can be reviewed by the public by submitting a request to DEQ. No change to the permit was made.

Comment #9 Commenter 1 is concerned that monitoring during the highest month of production during a calendar quarter does not allow adequate oversight and suggests submission of DMR's more frequently than quarterly.

Response Most of the facilities operating under this permit have submitted monitoring information for approximately 20 years and compliance has generally been good. The permitted wastewater discharges are normally very consistent from day-to-day and as with the previous permits, we are continuing to target monitoring during a time period that corresponds with the highest potential stress on the operational and treatment systems. DEQ does not view this monitoring and reporting schedule as lenient, but as appropriate for this industry, history of compliance, discharge characteristics and potential for water quality impacts.

Comment #10 Commenter 2 is concerned that the effluent limit for temperature is not protective of standards, beneficial uses, and antidegradation requirements. Specifically, the commenter states that the lack of discharge-specific information is apparent and proposed frequency of monitoring is inadequate to identify any real problem. The commenter does not think that the option to reduce temperature monitoring during the term of the permit (based on monitoring showing no reasonable potential to exceed applicable criteria) can be supported with proposed monitoring frequency. The commenter disagrees that the permit requirements represent a temperature management plan (TMP) required by OAR 340-041-0026 and asks what BMPs are identified in the permit that will reverse the warming trend. The commenter wants to know the type of information DEQ evaluated for site-specific conditions, such as

receiving stream flows, channel shape, effluent temperatures, and species present.

Response

DEQ has structured the temperature conditions in the permit to reflect the degree of potential impact that fish hatchery production is likely to have on a receiving stream. All of the hatcheries currently assigned to this permit are cold-water fish production facilities that raise the type of fish the temperature standard is designed to protect. The temperature of the wastewater discharge is not expected to be a problem at these facilities because they use a flow-through production process (i.e., diverted stream water continuously flows through the hatchery production areas) and the only known source of heat is solar radiation. The limited information DEQ has on temperature from hatcheries shows a change from influent to effluent temperature of one degree or less. DEQ believes the new effluent limit and monitoring and reporting requirements will adequately control effects from temperature and will provide additional site-specific information. In addition, the pollution prevention plan requires the hatchery operator to become familiar with the water quality limited status of the receiving stream and to address parameters of concern through operational BMPs and other measures. This permit also requires the submittal of an updated TMP during year three of the permit to evaluate the monitoring information, and include BMPs to control temperature if necessary.

The proposed permit does not contain discharge limitations that are less stringent than the expired 300-J NPDES general permit. Therefore, the proposed permit is consistent with DEQ's antidegradation implementation policy for an NPDES general permit. No change was made to the permit.

Comment #11

Commenter 2 is concerned the permit has no effluent limitation for biochemical oxygen demand (BOD). He asks what BOD information is available from the hatcheries covered by the permit and whether modeling was done to evaluate effects from BOD. Similar concerns were raised about nutrients (such as ammonia and phosphorus).

Response

The approach for this general permit is to control the discharge of solids because it relates to the technology used for pollution control at fish hatcheries. The effluent concentration for solids discharge is set at low levels and theoretically correlates well to BOD removal. DEQ reviewed information from a few representative hatcheries for carbonaceous BOD and

concentrations were below levels of concern. DEQ did not conduct modeling to evaluate effects from BOD.

DEQ also reviewed information on ammonia from a few representative hatcheries; ammonia levels were not detectable. Nevertheless, the proposed permit includes new monitoring for total phosphorus and ammonia-N to provide additional information.

U.S. Environmental Protection Agency (USEPA) is currently developing national technology-based effluent guidelines for fish hatcheries. If BOD and nutrient limits are established DEQ will implement these requirements when they are final. DEQ will further evaluate any impact from fish hatcheries at a watershed basin level during statewide ambient monitoring and total maximum daily load (TMDL) analyses. If DEQ determines a facility covered under the general permit is unable to meet any discharge limitations and waste load allocations or is contributing to a stream that is water quality limited where a TMDL is not yet established, DEQ can require an individual or basin-specific permit. No change was made to the permit.

Comment #12 Commenter 2 contends that hatchery fish are considered biological pollutants under the Clean Water Act and wants to know whether their release is adversely affecting beneficial uses. The commenter also asks whether the permit is interpreted to allow release of hatchery fish into any waters of the state.

Response This comment is beyond the scope of the proposed action. The proposed permit establishes wastewater discharge limitations for process water related to the production of fish. ODFW is responsible for determining which waterbodies are appropriate for the release of hatchery fish.

Comment #13 Commenter 2 wants to know the approximate total volume of daily discharges and pollutant loadings allowed under the permit.

Response The proposed permit does not have an effluent limitation on flow volume and does not propose mass limits for any constituents. DEQ has not calculated any mass loading information for this permit.

Comment #14 Commenter 2 wants to know why DEQ has not required permitted sources to gather and submit data on temperature, nutrients, BOD, and chemicals prior to permit renewal.

Response DEQ's approach during the permit renewal in 1996 was to wait for this information to be collected from a few fish hatcheries that were soon to be issued individual permits. DEQ did not require new monitoring at all hatcheries under the general permit because available information indicated their discharges were substantially similar to the individually-permitted facilities that would be monitoring. DEQ has now reviewed the data from these representative fish hatcheries, which indicates these constituents are not significantly affecting water quality. Nevertheless, DEQ recognizes that hatchery operations do differ, and the data may not be wholly representative of all facilities operating under the general permit. The proposed permits require additional monitoring for phosphorus, ammonia and temperature to develop baseline information for each facility, confirm that water quality standards are being met or determine whether individual permits are needed, and assist with the evaluation of future effluent limits and TMDLs.

Comment #15 Commenter 2 supports the proposed change for the solids intake credit that can be accomplished through optional source water solids sampling, but suggests clarifying the protocol for collecting influent and effluent samples.

Response The protocol described in the proposed permit for collection of a daily composite sample applies to both influent and effluent sampling. DEQ believes this protocol is adequately defined. No change to the permit was made.

Comment #16 Commenter 2 suggest that DEQ should not assign new sources or increased discharges to 303(d) listed streams nor to streams that have an approved TMDL.

Response The proposed permit does not allow new or increased temperature discharges in a listed waterbody unless the applicant follows provisions in the temperature rule at OAR 340-041-0026. If a TMDL is established and a fish hatchery is assigned a waste load allocation, DEQ may require new applicants and permittees to apply for individual or basin-specific general permits.

Comment on specific provisions in the NPDES 400-J log pond general permit

Comment #17 Commenter 1 suggests the effluent limitation for pH be changed to a range of 6.5 - 8.5 (from 6.0 – 9.0 S.U.) for consistency with various basin specific water quality objectives.

Response Some basin standards allow an upper range pH of 9. DEQ has set the pH effluent limitation at the point of discharge while the basin standard for pH applies at the edge of the mixing zone. The effluent limitation allows for some dilution within the mixing zone so that water quality standards will be met at the edge of the mixing zone. No change was made to the permit.

Comment #18 Commenter 1 is concerned that a facility could discharge debris and oil and grease during days that are not being monitored. The commenter suggested a daily inspection by the permittee instead of weekly as proposed. The commenter asks how a citizen can determine whether debris is being discharged if the outfall is on private property.

Response The effluent limitation for debris and oil and grease applies everyday during the authorized discharge period. DEQ believes weekly monitoring is adequate to track any problems. DEQ cannot advise a citizen about entering private property to observe the outfall from a log pond. No change to the permit was made.

Comment #19 Commenter 1 wants to know if a 100-foot mixing zone and a ratio of 50:1 is as small as feasible on the Columbia River. The commenter asks whether acute toxicity will occur in the mixing zone and whether all water quality standards are met under low flow conditions.

Response DEQ believes the assigned mixing zone is of minimal dimensions. The authorized discharge period is from November to May when stream flows are high. No discharge is allowed during summer low flow periods. DEQ does not expect toxicity or water quality effects because the permit does not allow discharge of processed wastewater to a log pond. No change was made to the permit.

Comment #20 Commenter 1 asks whether the existing permit or proposed permit has a total suspended solids (TSS) limit and whether TSS monitoring is required.

Response Neither the expired permit nor the proposed permit includes a TSS limit. The proposed permit has a TSS benchmark and requires monthly TSS monitoring. The benchmark is a guideline concentration. If it is not achieved, the permittee must review its operations and implement additional controls or management practices to improve the quality of the discharge.

Comment #21 Commenter 1 questions whether the permit will ensure discharges satisfy the temperature management plan (TMP) requirement and asks what the permittees have developed to comply with the temperature standard.

Response DEQ requires temperature conditions in the permit that reflect the potential impact a log pond discharge is likely to have on a receiving stream. Given the authorized discharge period and characteristics of the discharge for facilities currently operating under this permit DEQ does not believe a significant heat load is being discharged. For this and some other general permits covering sources that do not have heated process or non-process wastewater, DEQ's approach is to allow specific conditions in the permit related to temperature to constitute the requirement for an initial TMP. The proposed permit requires permittees to monitor and report temperature measurements. DEQ will evaluate the data collected to determine whether updated TMP's are needed. No change to the permit was made.

Comment #22 Commenter 1 asks whether discharges may exceed the turbidity standard.

Response DEQ does not expect turbidity to be a problem because of the seasonally limited discharge period, effluent limits, authorized mixing zone, and characteristics of the discharge for facilities currently operating under this permit. No change was made to the permit.

Comment #23 Commenter 1 asked whether discharges from this permit are to any waterbodies on the 303(d) list and, if so, whether water quality-based effluent limits are required.

Response The proposed permit authorizes discharges during the wet season only. Most of the 303(d) listed streams exceed water quality standards during the dry season. The Department will be continuing to develop TMDLs for water quality limited streams over the next few years. If a TMDL contains a wasteload allocation for a source or sources covered by this permit, the Department will issue an individual or basin specific general permit to address the waste load allocation. No change was made to the permit.

List of Commenters

Ref #	Last Name	First Name	Organization	Address	City	St.
1	Riskedahl	Mark	Northwest Environmental Defense Center	10015 SW Terwilliger Blvd.	Portland	OR
2	Foster	Brent	Willamette Riverkeeper	380 SE Spokane St., Suite 305	Portland	OR

Attachment D
Presiding Officers' Report on Public Hearings

State of Oregon

Department of Environmental Quality

Memorandum

To: Environmental Quality Commission Date: June 18, 2002

From: James Cowan, Water Quality Division

Subject: Proposal to Amend Rules to Renew NPDES 300-J and 400-J General Permits

Overview of Public Hearing Dates, Times and Locations

Date and Time	May 21, 2002 at 7pm	May 22, 2002 at 7pm	May 23, 2002 at 7pm
Location	Douglas County Library –Ford Room 1409 NE Diamond Lake Blvd. Roseburg, OR	DEQ Bend Office 2146 NE 4 th , #104 Bend, OR	DEQ Headquarters Room 3A 811 SW 6 th Ave. Portland, OR

Summary of Public Hearings

ROSEBURG HEARING: Paul Kennedy, DEQ Western Region, was the presiding officer. The rulemaking hearing was convened at 7:00 p.m. and closed shortly thereafter. One person was in attendance. No one provided oral or written comment.

BEND HEARING: Larry Brown, DEQ Eastern Region, was the presiding officer. The rulemaking hearing was convened at 7:00 p.m. and closed shortly thereafter. There was no one in attendance.

PORTLAND HEARING: James Cowan, DEQ Water Quality Division, was the presiding officer. The rulemaking hearing was convened at 7:00 p.m. and closed at 7:30 p.m. Two people were in attendance. Mark Riskedahl, Northwest Environmental Defense Center provided oral comments at the hearing.

Mark Riskedahl, 10015 S.W. Terwilliger Blvd., Portland, OR 97219

Mr. Riskedahl, Executive Director of Northwest Environmental Defense Center, also represented Oregon Trout and members, Willamette Riverkeeper and members, Columbia Riverkeeper and members, and Northwest Environmental Advocates. All organizations are concerned that permits may not be legally and scientifically defensible and not as stringent as previous permits. He stated that further elaboration on those concerns would be expressed in his written comments.

Attachment E
State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal
for

Amendments to OAR 340-045-0033 Adopting Water Quality General Permit Renewals NPDES
300-J Fish Hatchery and NPDES 400-J Log Pond

**Questions to be Answered to Reveal
Potential Justification for Differing from Federal Requirements.**

- 1. Are there federal requirements that are applicable to this situation? If so, exactly what are they?**

40 CFR §122.24 *Criteria for Determining a Concentrated Aquatic Animal Production Facility* defines the production and feeding categories for a fish hatchery or fish farm.

40 CFR §122.45 *Calculating NPDES Permit Conditions* allows credit for total suspended solids in the intake water.

40 CFR §429.100 *Timber Products Processing Point Source Category* includes subpart I for the wet storage of unprocessed wood. This is the national technology based effluent guideline.

- 2. Are the applicable federal requirements performance based, technology based, or both with the most stringent controlling?**

The federal requirements cited above relate to criteria for calculating NPDES permit conditions, criteria for issuing permits, and technology based standards.

- 3. Do the applicable federal requirements specifically address the issues that are of concern in Oregon? Was data or information that would reasonably reflect Oregon's concern and situation considered in the federal process that established the federal requirements?**

The applicable federal requirements do address permit specific issues in Oregon. Data and information used to establish the federal requirements can be reasonably assumed to reflect the situation in Oregon.

- 4. Will the proposed requirement improve the ability of the regulated community to comply in a more cost effective way by clarifying confusing or potentially conflicting requirements (within or cross-media), increasing certainty, or preventing or reducing the need for costly retrofit to meet more stringent requirements later?**

The proposed permits do clarify protocols for use of chemicals and will increase certainty by the permittee to know the level of performance that is required for compliance.

The U.S. EPA is currently involved in a study to develop national technology based standards for the aquatic animal production industry. It is possible that this project could result in more stringent discharge standards. DEQ cannot anticipate the final impact of this multi-year project and prefers to complete the

renewal of the NPDES 300-J permit now and incorporate any new federal technology standards and other requirements after they are finalized.

5. Is there a timing issue which might justify changing the time frame for implementation of federal requirements?

No, the applicable federal requirements are currently implemented in the existing permits and will continue to be effective in the proposed permits.

6. Will the proposed requirement assist in establishing and maintaining a reasonable margin for accommodation of uncertainty and future growth?

Not applicable

7. Does the proposed requirement establish or maintain reasonable equity in the requirements for various sources? (level the playing field)

The two proposed permits and their associated conditions do maintain equity for the category of sources that are affected by the requirement to apply for coverage under the specific general permits.

8. Would others face increased costs if a more stringent rule is not enacted?

Yes, the proposed permits control the level of pollutant discharges and if not enacted it could reduce pollutant allocations to downstream dischargers and may increase the cost of treatment for downstream water users.

9. Does the proposed requirement include procedural requirements, reporting or monitoring requirements that are different from applicable federal requirements? If so, Why? What is the "compelling reason" for different procedural, reporting or monitoring requirements?

No

10. Is demonstrated technology available to comply with the proposed requirement?

Yes, compliance with effluent limitations in both permits has generally been very good and the proposed permits propose a similar level of discharge quality.

11. Will the proposed requirement contribute to the prevention of pollution or address a potential problem and represent a more cost effective environmental gain?

Yes, the proposed permits contain operating conditions that require and/or encourage the implementation of pollution prevention techniques.

Attachment F
State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal
for
Amendments to OAR 340-045-0033 Adopting Water Quality General Permits Renewals for
NPDES 300-J Fish Hatchery and NPDES 400-J Log Pond

Fiscal and Economic Impact Statement

Purpose of Rulemaking

The issuance procedure for general permits in OAR 340-045-0033 requires that the Environmental Quality Commission adopt general permits into rule by reference. This rulemaking will adopt by reference the NPDES General Permit 300-J Fish Hatchery and the NPDES General Permit 400-J Log Pond. These existing general permits have expired and will be reissued concurrently with this rulemaking action.

Introduction

The Department may issue a general permit for a category of waste discharge sources when an individual permit may not be necessary to protect the environment. The Department issues the general permit for sources with similar operations, activities, and waste effluent. The general permit offers a lower cost alternative to an individual permit and includes standard requirements for compliance such as appropriate and adequate monitoring requirements, effluent limitations and operating conditions. Where application and annual compliance fees for an individual industrial discharge permit for Fish Hatchery or Log Pond may range from \$9,000 to \$9,855, the fees for a general permit for these operations range from \$525 to \$615.

Standards of environmental protection are uniformly applied for both types of permits so compliance requirements under an individual permit are often similar if not more extensive than under a general permit. An individual permit will tailor compliance requirements to the specific facility and operation it covers. For example, an individual permit covering a waste discharge with heat as the pollutant may have effluent limitations calculated for the specific receiving water and in-stream and effluent temperature monitoring requirements designed for the volume of wastewater discharged that will meet the temperature water quality standard. A general permit such as the Fish Hatchery permit has generic effluent limitations and monitoring requirements that also must be sufficient to ensure that the water quality standard is met. The costs to the facility to comply with the requirements of an individual permit may be similar or more than for a general permit. If a general permit is not available to a business that generates wastewater, an

individual permit must be obtained or the operator must find other ways of handling wastewater that does not discharge to the environment.

This proposed rulemaking will not increase permit fees, but costs for compliance with new conditions in the specific permits will increase depending on the type of permit and facility covered. In general, the renewed permits will require more monitoring, pollution prevention planning, information collection, and reporting than the currently expired permits. The additional permit requirements may have a low to moderate fiscal impact on facilities currently covered by these permits due to increased compliance costs. No major capital costs are expected because the permit effluent limitations will remain the same as in the existing permits.

Overall, the costs for complying with the new requirements in the renewed permits are likely to be equivalent or less than costs for individual industrial permits or alternative waste disposal options.

General:

The cost of compliance with new permit requirements may vary considerably for facilities currently operating under existing permits or for new permittees. Some factors that will determine the cost for compliance include the type of facility ownership (i.e., business or government agency), the level of employee expertise available to conduct monitoring and other compliance tasks, the costs for training employees, the potential need to hire external contractors or consultants to perform some compliance tasks, and the market driven nature of contractor/consultant costs. Additionally, the range of compliance costs will depend on facility specific operational procedures such as the frequency of chemical use and the potential for a thermal load discharge increase.

General Public:

There is no expected fiscal and economic impact to the general public since the general public does not need coverage under these permits. The general public will benefit from maintaining water quality for all beneficial uses

Small Business:

Fish Hatchery Permit

A small private fish hatchery will have new compliance costs associated with increased monitoring and reporting and preparation of a Pollution Prevention Plan and an Updated Temperature Management Plan. The range of new costs could vary depending on the operating conditions specific to each facility. For example, a hatchery that does not use chemicals or already has well developed operating procedures would not incur the estimated full increased costs because recordkeeping, reporting, and plan preparation requirements would be minimized. There are two

privately owned hatcheries and the average increased annual cost over the five year permit duration, estimated in Table 1, is \$2525.

Log Pond Permit

A small wood products operation is estimated in Table 2 to have an average increased annual cost over the five year permit duration of \$40. This cost is associated with the proposed new monitoring and reporting requirements and includes a reduction in costs due to the proposed elimination of some analytical monitoring requirements. We estimate that there are seven log ponds operated by small businesses under the current permit.

Large Business:

Fish Hatchery Permit

There are currently no large private fish hatchery operations.

Log Pond Permit

Operational cost for a large wood products company is estimated in Table 2 to have an average increased annual cost over the five year permit duration of \$40. This cost is associated with the proposed new monitoring and reporting requirements and includes a reduction in costs due to the elimination of some analytical monitoring that is required under the current permit. We estimate that there are twenty-one log ponds operated by large businesses under the current permit.

Local Governments:

Fish Hatchery Permit

There are two fish hatcheries operated by local governments. The average increased annual cost estimated in Table 1 over the five year permit duration for each hatchery is \$2525. The new costs are associated with new monitoring and reporting and preparation of a Pollution Prevention Plan and an Updated Temperature Management Plan. The range of new costs could be lower than the worst case estimate depending on facilities operating conditions. For example, a hatchery that does not use chemicals or already has well developed operating procedures would not incur the estimated full costs because recordkeeping, reporting, and plan preparation requirements would be minimized.

Log Pond Permit

No local governments operate a log pond.

State Agencies

DEQ

The issuance of discharge permits and permittee compliance evaluation is a routine activity. The number of permittees operating under these permits is generally consistent from year to year and the expected increased staff time to review the temperature compliance plan will be handled through existing staff resources. DEQ will not be adding additional staff, receiving additional revenue, or increasing expenditures to implement the proposed permits.

Fish Hatchery Permit

Oregon Department of Fish and Wildlife operates 38 fish hatcheries under the existing permit and the average increased annual cost over the five year permit duration, estimated in Table 1, for each hatchery is \$2525. This state agency will potentially incur the largest impact of all the regulated sources, but will have the opportunity to reduce some of the overall estimated costs due to economies of scale. For example, development of a generic chemical reporting format and pollution prevention plan template could be used at all hatcheries. The frequency of chemical use may also vary between hatcheries and could reduce the estimated increased cost because the estimate is based on a worst case of daily recordkeeping for chemical use. The use of existing procedures for chemical usage and recordkeeping, and other operational procedures (e.g., feeding and cleaning) could significantly reduce the estimated full cost to develop a pollution prevention plan.

Log Pond Permit

No state agencies operate a log pond.

Federal Agencies

Fish Hatchery Permit

There are two fish hatcheries operated by federal government and the average increased annual cost over the five year permit duration, estimated in Table 1, for each hatchery is \$2525. The new costs are associated with increased monitoring and reporting and preparation of a Pollution Prevention Plan. A reduction in estimated full costs would occur if a hatchery does not use chemicals or already has well developed operating procedures because recordkeeping, reporting, and plan preparation requirements would be minimized.

Log Pond Permit

No federal agencies operate a long pond.

Assumptions

To derive the new costs for proposed monitoring, reporting, and plan development requirements the Department used an estimated average hourly wages for the facility employees or consultants that may be assigned to perform these activities. For routine monitoring activities, an estimate of \$15 per hour was used and for activities that are considered to be more technical in nature an estimate of \$50 per hour was used. Due to the individual nature of each operation, these estimates are examples and may not exactly represent costs for any one specific facility.

Fish Hatchery Permit

An assumption in this impact statement is that the required Pollution Prevention Plan will be based on and incorporate procedures that are for the most part currently being practiced, are well established, and cover activities that are required under the existing permit. Although they are now being implemented, all elements required in the Pollution Prevention Plan may not have been fully documented at all facilities covered by the existing permit. The permittee may need to evaluate the need for changes to some management or operational activities. Although chemical use recordkeeping is not considered a new activity, the full costs are included in the estimates because a separate format for tabulation may be necessary.

Log Pond Permit

The estimated average increased annual costs for changes to the monitoring requirements in the permit are based on the overall effort being only slightly (\$40) more than the existing permit because new monitoring has been offset by decreasing monitoring required by the existing permit.

Housing Cost Impact Statement

The Department has determined that this proposed rulemaking will have no effect on the cost of development of a 6,000 square foot parcel and the construction of a 1,200 square foot detached single family dwelling on that parcel.

Estimated New Compliance Cost Summary

The following tables summarize the major new requirements for each proposed permit and provide a generalized estimate of associated costs for an example facility over the 5-year duration of the permit. This estimate does not include permit fees or annual compliance fees, and does not include estimates for activities currently required under the existing permits. Actual costs may vary given the factors noted above and the individual nature of each permitted operation.

Table 1 - NPDES General Permit 300-J Fish Hatchery
 Summary of New Increased Compliance Costs

Task		Estimated Cost				
		Year 1	Year 2	Year 3	Year 4	Year 5
Monitoring	Chemical (Total Phosphorus, Ammonia -N)	\$400 ^a	Not required	Not required	Not required	Not required
	Temperature	\$155 ^b	\$105	\$105	\$105	\$105
Reporting	Chemical (Daily log and annual report)	\$1,730 ^c	\$1,730	\$1,730	\$1,730	\$1,730
	Updated Temperature Management Plan	Not required	Not required	\$1,000 ^d	Not required	Not required
	Pollution Prevention Plan	\$2,000 ^e	Not required	Not required	Not required	Not required
Annual Costs		\$4,285	\$1,835	\$2,835	\$1,835	\$1,835
Average Annual Cost		\$2,525				
5-year Cost		\$12,625				

Estimated Cost Assumptions

- a) Includes 8 samples at \$50 each
- b) Includes initial equipment cost of \$50; 28 annual samples take 7 hours at \$15 per hour
- c) Includes total of 356 days; 15 minutes daily at \$15 per hour; annual report takes 24 hours at \$15 per hour
- d) Includes 20 hours at \$50 per hour
- e) Includes 40 hours at \$50 per hour

Table 2 - NPDES General Permit 400-J Log Pond
 Summary of New Increased Compliance Costs

Task		Estimated Cost				
		Year 1	Year 2	Year 3	Year 4	Year 5
Monitoring	Total suspended solids, sheen and debris observation, screen inspection	\$480 ^a	\$480	\$480	\$480	\$480
	Temperature	\$110 ^b	\$60	\$60	\$60	\$60
Reporting	Daily Monitoring Report (DMR)	\$90 ^c	\$90	\$90	\$90	\$90
Monitoring Cost Reduction		(-\$600) ^d	(-\$600)	(-\$600)	(-\$600)	(-\$600)
Annual Costs		\$80	\$30	\$30	\$30	\$30
Average Annual Cost		\$40				
5-year Cost		\$200				

Estimated Cost Assumptions

- a) Includes 6 TSS samples at \$50 each; annual observation and recording 12 hours at \$15 per hour
- b) Includes initial equipment cost of \$50; 8 annual samples take 4 hours at \$15 per hour
- c) Includes 6 additional DMRs; 6 hours at \$15 per hour
- d) Proposed reduction of costs includes monitoring for BOD and Oil and Grease that is required under the current permit; 12 annual samples at \$50 each

Agenda Item C, Rule Adoption: Renewal of NPDES 300-J and NPDES 400-J General Permits
October 3-4, 2002 EQC Meeting

Attachment G
State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal
for
Amendments to OAR 340-045-0033 Adopting Water Quality General Permit Renewals for NPDES
300-J Fish Hatchery and NPDES 400-J Log Pond

Land Use Evaluation Statement

1. Explain the purpose of the proposed rules.

The proposed rule amends OAR 340-045-0033 to adopt by reference two National Pollutant Discharge Elimination System (NPDES) general permits that have expired and are proposed for reissuance (NPDES 300-J, Fish Hatchery and NPDES 400-J, Log Pond).

2. Do the proposed rules affect existing rules, programs or activities that are considered land use programs in the DEQ State Agency Coordination (SAC) Program?

Yes No

a. If yes, identify existing program/rule/activity:

The water quality permits that are affected are NPDES general permits issued pursuant to federal and state regulations.

b. If yes, do the existing statewide goal compliance and local plan compatibility procedures adequately cover the proposed rules?

Yes No (if no, explain):

A land use compatibility statement signed by the local land use authority is required from the applicant prior to authorizing discharges under a NPDES general permit.

c. If no, apply the following criteria to the proposed rules.

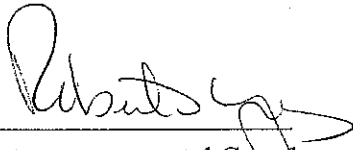
Not applicable

Agenda Item C, Rule Adoption: Renewal of NPDES 300-J and NPDES 400-J General Permits
October 3-4, 2002 EQC Meeting
Attachment G

In the space below, state if the proposed rules are considered programs affecting land use. State the criteria and reasons for the determination.

3. **If the proposed rules have been determined a land use program under 2. above, but are not subject to existing land use compliance and compatibility procedures, explain the new procedures the Department will use to ensure compliance and compatibility.**

Not applicable

Water Quality  _____
Division Intergovernmental Coord. Date 8/21/02 _____

OMEALY Mikell

From: LLEWELYN Michael
Sent: Tuesday, October 01, 2002 1:47 PM
To: HALLOCK Stephanie
Cc: OMEALY Mikell
Subject: RE: CAFO MOU with ODA

No role changes. ODA is being "delegated" to make administrative decisions within Division 45 (NPDES permitting, e.g. waiving of application deadlines) in lieu of DEQ.

The true "variances" found in our gw and surface water standards remain either with the Department or EQC as outlined in current rules. We did find however, that some of our rules say "EQC or Department" and it's not clear why or when we distinguish between the two. Probably should clean it up someday but the CAFO item isn't the time.

-----Original Message-----

From: HALLOCK Stephanie
Sent: Tuesday, October 01, 2002 8:54 AM
To: LLEWELYN Michael
Cc: OMEALY Mikell
Subject: FW: CAFO MOU with ODA
Importance: High

So are we changing any of the current roles on who approves variances, or just clarifying?

-----Original Message-----

From: OMEALY Mikell
Sent: Monday, September 30, 2002 1:30 PM
To: HALLOCK Stephanie
Subject: FW: CAFO MOU with ODA

FYI – answers to your questions about the amendment to the CAFO MOU we're asking EQC to revise this week.

-----Original Message-----

From: LLEWELYN Michael
Sent: Monday, September 30, 2002 1:19 PM
To: OMEALY Mikell
Subject: RE: CAFO MOU with ODA

1. Each variance is designated in rule in terms of who has authority to sign, some are Director/designee, some "Department" and some clearly EQC. Depends on the variance
2. As in above, over the years someone determined by rule who signs variances, not a discretionary act.
3. We had some mixed signals between Chuck Craig and ODA staff on variance approval that I thought we needed to address. It didn't come out until after the EQC report. I could have left it for the ultimate final MOA which will be done when and if ODA gets full delegation, but I thought best we try to be as clear as possible so I told Ranei to proceed with the revision.

-----Original Message-----

From: OMEALY Mikell
Sent: Monday, September 30, 2002 9:25 AM
To: LLEWELYN Michael
Cc: OMEALY Mikell

Subject: CAFO MOU with ODA

Mike – Stephanie signed the revision to the MOU we're asking EQC to approve this week for ODA's administration of the CAFO permit program, but she had a few questions. She would like you to be prepared to explain the need for the change to EQC at the meeting, specifically:

- Who signs or approves variances now?
- If it's the EQC, why? And, why delegate that function to DEQ? Her thinking is that some enviros may like EQC involvement. She wonders whether anyone will be unhappy that EQC is delegating authority to DEQ that we didn't have before.
- Why wasn't this change thought of earlier, so that an amendment to the original staff report was not needed?

Would you please send me answers to these before the meeting, for Stephanie's information? Attached is the amendment we sent to EQC. Let me know if you'd like to discuss. Thanks.

Mikell O'Mealy
Special Assistant to the Director
Department of Environmental Quality
(503) 229-5301

State of Oregon
Department of Environmental Quality

Memorandum

Date: September 30, 2002
To: Environmental Quality Commission
From: Stephanie Hallock, Director *S. Hallock*
Subject: Minor Revision to Agenda Item D, Action Item: EQC and ODA Memorandum of Understanding for Confined Animal Feeding Operation Permit Program
October 3, 2002 EQC Meeting

What is being revised? DEQ and the Oregon Department of Agriculture (ODA) are proposing a minor revision to condition VIII(A)(7)(iii) in Attachment B, *Final 2002 Revised MOU*.

Why is this change being proposed? Initially, the Oregon Department of Agriculture (ODA) requested that EQC continue to conduct all variances, exceptions or approvals as required by Oregon Administrative Rule (OAR). Upon further discussion, it was determined that additional modification of this condition was necessary to:

- Clarify that the Department may also grant certain variances, exceptions or approval as allowed by OAR; and
- Specify that the actions discussed in this condition are found in OAR 340-040 *Groundwater Quality Protection* and 340-041 *Statewide Water Quality Management Plan; Beneficial Uses, Policies, Standards, and Treatment Criteria for Oregon*.

Note: ODA will continue to make permit administrative decisions detailed in OAR 340-045 *Regulations Pertaining to NPDES and WPCF Permits* (i.e., application deadlines, application approval, etc.).

Previous condition *ODA will continue to rely on EQC to grant exceptions or approvals as detailed in OAR. For example, approval of groundwater concentration limit variances [OAR 340-040-0030(4)] and approval to lower water quality in high quality waters [OAR 340-041-0026(1)(A)].*

New condition (see p. 5) *ODA will continue to rely on EQC or DEQ to grant groundwater concentration limit variances [OAR 340-041-0030(4)] and other exceptions or approvals as detailed in OAR 340-041 [e.g., approval to lower water quality in high quality waters, OAR 340-041-0026(1)(A)].*

Attachment The final MOU, modified as discussed here, is attached for EQC approval (Attachment B, Version 2, *Final 2002 Revised MOU*). Strikeout indicates deleted language; underline indicates new language.

**Attachment B, Version 2
Final 2002 Revised MOU**

**Environmental Quality Commission and Oregon Department of Agriculture
Memorandum of Understanding
Relating to Confined Animal Feeding Operations**

I. Parties

The Environmental Quality Commission (EQC) and the Oregon Department of Agriculture (ODA).

II. Purpose

This Memorandum of Understanding (MOU) replaces the prior MOU dated May 1995 between ODA and EQC. The prior MOU needed to be amended to address the roles and responsibilities of the agencies prior to, during and after the transfer of the NPDES program.

III. Effective Date

The MOU is effective on the date it is signed by both parties and it will remain effective until June 30, 2007 unless terminated or modified as provided in paragraphs XII and XIII.

IV. Authority

The MOU is authorized by Oregon Revised Statutes (ORS) 468B.217 and 2001 Oregon Laws Chapter 248.

V. Definition of Terms

Unless indicated otherwise by context, terms used in this MOU will be defined consistently with the Clean Water Act (33 USC §§1251), 40 Code of Federal Regulation (CFR) §122, ORS 468B.005; Oregon Administrative Rule (OAR) 340, Divisions 40, 41, 44 and 45; and OAR 603, Division 74.

A. *Confined Animal Feeding Operation (CAFO)* as defined in OAR 603-074-0010(3) means

1. The concentrated confined feeding or holding of animals or poultry, including but not limited to horse, cattle, sheep, or swine feeding areas, dairy confinement areas, slaughterhouse or shipping terminal holding pens, poultry and egg production facilities and fur farms
 - (i) In buildings or in pens or lots where the surface has been prepared with concrete, rock or fibrous material to support animals in wet weather; or
 - (ii) That have wastewater treatment works; or
 - (iii) That discharge any wastes into waters of the state; or

2. An animal feeding operation that is subject to regulation as a concentrated animal feeding operation pursuant to 40 CFR §122.23.
- B. *Injection System or Underground Injection System* as defined in OAR 340-044-0005(24) means a well, improved sinkhole, sewage drain hole, subsurface fluid distribution system or other system or groundwater point source used for the subsurface emplacement or discharge of fluids.
- C. *General Permit* as defined in OAR 340-045-0010(7) means a permit issued to a category of qualifying sources pursuant to OAR 340-045-0033 in lieu of individual permits being issued to each source.
- D. *National Pollutant Discharge Elimination System (NPDES) Permit* means a waste discharge permit issued in accordance with Section 402 of the federal Clean Water Act, 33 USC §1251-1387. The federal Environmental Protection Agency (EPA) has delegated NPDES authority to the Department of Environmental Quality (DEQ). NPDES permits are issued pursuant to ORS 468B.035 and 050 and in accordance with procedures set forth in OAR 340-045.
- E. *Water Pollution Control Facilities (WPCF) permit* means a permit to construct and operate a disposal system with no discharge to navigable waters. A WPCF permit is issued pursuant to ORS 468B.050 by the Director of DEQ or ODA in accordance with the procedures of OAR Chapter 340, Division 45 or OAR 340-071-0162.
- F. *WPCF General Permit #800* means the WPCF general permit issued in accordance with the procedures of OAR 340-045-0033 for confined animal feeding operations.

VI. Background

- A. The Oregon Legislature established a special regulatory program for CAFOs in 1989, with an effective date of January 1, 1990. 1989 Oregon Laws Chapter 847. The legislation required DEQ to develop and issue CAFO permits pursuant to its WPCF permit program and it directed ODA to inspect CAFOs to ensure permit compliance.
- B. From the outset, ODA and DEQ worked cooperatively on water quality issues associated with CAFOs. This cooperation was encouraged by the governor and legislature and in 1993 the CAFO statutes were amended to direct the EQC and ODA to enter into a formal memorandum of understanding providing for ODA to run the CAFO program. The legislature authorized ODA to perform any function of the EQC or DEQ so long as the delegation is consistent with the MOU.
- C. In 2001, the legislature again amended the CAFO statutes. 2001 Oregon Laws Chapter 248. The purpose of the amendments was to authorize and direct the transfer of the federally delegated NPDES permit program for CAFOs from DEQ to ODA at such time as the transfer is approved by the EPA.

VII. Authorities Delegated to ODA

To the maximum extent allowed by the delegation agreement between the state and EPA, ODA is authorized to perform the following functions of the EQC and DEQ with respect to CAFOs:

- A. All functions authorized by ORS 468.065 *Issuance of Permits; Content; Fees; Use*, 468.073 *Expedited or Enhanced Regulatory Process; Payment; Disposition of Payments*, 468.095 *Investigatory Authority; Entry on Premises; Status of Records*, and 468.120 *Public Hearings; Subpoenas, Oaths, Depositions*.
- B. All functions authorized by ORS 468B.020 *Prevention of Pollution*, 468B.032 *Alternative Enforcement Proceedings; Request; Public Notice; Fees*, 468B.035 *Implementation of Federal Water Pollution Control Act*, 468B.053 *Alternatives to Obtaining Water Quality Permit*, 468B.055 *Plan Approval Required; Exemptions; Rules*, 468B.095 *Use of Sludge on Agricultural, Horticultural or Silvicultural Land; Rules*, and 468B.200 et seq *Animal Waste Control*.
- C. All functions authorized by OAR Chapter 340, including, but not limited to, Divisions 45 *Regulations pertaining to NPDES and WPCF Permit* and 51 *Confined Animal Feeding or Holding Operations of Chapter 340*.

VIII. ODA Roles and Responsibilities

- A. Prior to EPA Approval of NPDES Program Delegation to ODA, ODA will:

Technical Assistance

1. To the extent possible, conduct an education program for CAFO operators in cooperation with the OSU Cooperative Extension Service to impart Best Management Practices (BMPs) for animal waste management systems.
2. Advise CAFO owner/operators about available state, federal, and private sources of technical and financial assistance for planning, designing, and implementing appropriate BMPs for animal waste management systems.

NPDES Program Development

3. Develop and implement administrative rules that are appropriate for the anticipated delegation of NPDES permitting authority to ODA.
4. Work with DEQ to develop and implement a method of issuing NPDES individual and general permits for qualifying CAFO facilities until such time as ODA has received the necessary delegated authority to operate a NPDES program for CAFOs.
5. Promulgate a new CAFO NPDES general permit through joint rulemaking with DEQ for use by new and existing operators.

NPDES and WPCF Permit Program Implementation

6. Receive and review permit applications for existing or proposed CAFOs.

7. Assign coverage to those applicant CAFO facilities that qualify for coverage under the existing WPCF General Permit #800 or future WPCF or NPDES general permits, or issue an individual permit if necessary.
 - (i) Permits will comply with OAR Chapter 340, Divisions 40 *Groundwater Quality Protection* and 41 *State-Wide Water Quality Management Plan; Beneficial Uses, Policies, Standards, and Treatment Criteria for Oregon*.
 - (ii) ODA will refer CAFOs discharging to injection systems regulated by OAR 340-044 *Construction and use of Waste Disposal Wells or Other Underground Injection Activities* to DEQ for registration and permitting.
 - (iii) ~~ODA will continue to rely on EQC to grant exceptions or approvals as detailed in OAR. For example, approval of groundwater concentration limit variances [OAR 340-040-0030(4)] and approval to lower water quality in high quality waters [OAR 340-041-0026(1)(A)].~~ ODA will continue to rely on EQC or DEQ to grant groundwater concentration limit variances [OAR 340-041-0030(4)] and other exceptions or approvals as detailed in OAR 340-041 [e.g., approval to lower water quality in high quality waters, OAR 340-041-0026(1)(A)].
8. Review for approval or rejection animal waste management system plans and specifications for animal waste control facilities to verify the plans and specifications have been prepared pursuant to OAR 340-051 design criteria. ODA may develop its own method for accepting certification from outside professional engineers as to the sufficiency and quality of the plans and specifications. Prior to plan approval and when appropriate:
 - (i) ODA may request that DEQ review plans and specifications for construction, modification, or expansion of CAFOs to determine whether the proposed construction conforms to groundwater protection requirements.
 - (ii) ODA may request that DEQ review plans and specifications for CAFO systems not covered by Division 51, such as mechanical treatment systems or subsurface disposal systems.

Compliance Activities

9. Conduct periodic inspections of all permitted CAFOs. Inspections will include an evaluation of animal waste collection, treatment, handling, disposal and management procedures for compliance with the Clean Water Act, Oregon water quality law, and permit conditions.
10. Respond promptly to citizen complaints pertaining to the operation of CAFOs. ODA has primary responsibility for response to complaints received from the public, and for investigation of known or suspected violations of laws, rules, orders, permits, or water quality standards associated with CAFO facilities.
11. Take prompt enforcement action when CAFOs violate permit conditions, water quality statutes, rules or orders in accordance with ODA enforcement procedures.

12. Impose civil penalties, when appropriate, on the owner or operator of a CAFO for failure to comply with the provisions of ORS 468 or 468B, or any rules adopted thereunder, or for violations of a permit issued pursuant to ORS 468B, relating to the prevention and control of water pollution from a CAFO, subject to the provisions for civil penalties contained in ORS 183.415 and ORS 468B.230 and in 2001 Oregon Laws Chapter 248 (HB 2156).
 13. Develop and maintain a program database on all permit activities and produce periodic reports on the status of CAFO permits, complaint investigations, corrective orders, enforcement actions, and civil penalties imposed.
 14. Notify DEQ when a discharge violation threatens public health or safety.
- B. After EPA Approval of NPDES Permit Program Delegation to ODA, ODA will:
1. Work with DEQ to draft an amended MOU to address the changes resulting from such delegation.
 2. Work with DEQ to address CAFO permitting issues in groundwater management areas and water quality limited streams.
 3. Work with DEQ to maintain the State of Oregon's delegated authority to enforce the CWA.

IX. DEQ/EQC Roles and Responsibilities

- A. Prior to EPA Approval of NPDES Program Delegation to ODA, DEQ/EQC will:

Permit Program Assistance

1. Provide advice, assistance, training, and program guidance relative to surface and groundwater quality problems associated with animal waste, including but not limited to groundwater protection and monitoring requirements, permit writing, lagoon leakage testing, annual compliance inspections, data analysis, and sampling parameters and protocols.
2. Work with ODA to develop and implement a method of issuing NPDES permits for qualifying CAFO facilities until such time as ODA has received the necessary delegated authority to operate an NPDES program for CAFOs.
3. Assist ODA in developing administrative rules that are appropriate for the anticipated delegation of NPDES permitting authority to ODA.
4. Review plans as requested by ODA.

Compliance Activities

5. Refer all water pollution citizen complaints received on CAFOs and information regarding suspected violations of permits, rules, or water quality standards by CAFOs to ODA for investigation and follow-up.
6. Consistent with existing law, conduct inspections only when requested by ODA or, in situations that present an imminent and substantial danger to human health or the environment, after notifying ODA if the situation is known by DEQ to be related to a CAFO.

7. Initiate enforcement actions, within agency discretion, only as a direct result of the investigative actions outlined herein or upon request of ODA.
8. Participate in annual reviews with ODA and work cooperatively with ODA to achieve the objectives of this agreement. The annual review may include file reviews as well as inspection of a small, agreed-upon number of animal feeding operations not under ODA jurisdiction across the state by a team representing ODA and DEQ.

B. After EPA Approval of NPDES Permit Program Delegation to ODA, DEQ/EQC will:

1. Work with ODA to draft an amended MOU to address the changes resulting from such delegation.
2. Work with ODA to address CAFO permitting issues in groundwater management areas and water quality limited streams.
3. Work with ODA to maintain the State of Oregon's delegated authority to enforce the CWA.

X. No Third Party Rights

Nothing in this MOU constitutes or creates a defense on behalf of a regulated party.

XI. Resolution of Disagreements Regarding the Interpretation and Application of this MOU

In the event of disagreement regarding the interpretation and application of this MOU, agency staff will direct the disagreement to designated supervisors or other managers for resolution.

- A. In the case of ODA, the director or his designee has authority to resolve disputes.
- B. In the case of DEQ, the director or her designee has authority to resolve disputes.

XII. Modification of the MOU

This MOU may be modified at any time by written agreement of the parties.

XIII. Termination of the MOU

This MOU may be terminated at any time and by either party after 60 days advance notice of intent to terminate and/or within 180 days after formal delegation has been achieved. The notice must be provided in writing and served on the director of DEQ on behalf of the EQC or the director of the State Department of Agriculture on behalf of ODA.

Stephanie Hallock
Director of DEQ on behalf of the
Environmental Quality Commission

Phil Ward
Director of ODA

Date

Date

State of Oregon
Department of Environmental Quality

Memorandum

Date: September 10, 2002
To: Environmental Quality Commission
From: Stephanie Hallock, Director *S. Hallock*
Subject: Agenda Item D, Action Item: Revision of EQC and ODA Memorandum of Understanding for Confined Animal Feeding Operation Permit Program
October 3, 2002 EQC Meeting

Proposed Action Approval of revised Memorandum of Understanding (MOU) for the Confined Animal Feeding Operations (CAFO) permit program.

Key Issues The Department presented most of the following background information to EQC at its July 26, 2002 meeting. Additional information on ODA resources to implement the NPDES CAFO permit program is provided at the end of this section.

What is the CAFO permit program?

The CAFO permit program began in the early 1980s to prevent CAFO wastes from contaminating groundwater and surface water. CAFOs are generally defined as the concentrated confined feeding or holding of animals in buildings, pens or lots where the surface is prepared to support animals in wet weather or where there are wastewater treatment facilities (e.g., manure lagoons). CAFO wastes include but are not limited to manure, silage pit drainage, wash down waters, contaminated runoff, milk wastewater, and bulk tank wastewater.

CAFO Permit Program History

When the program began, DEQ was the permit issuing and enforcement entity, and the Oregon Department of Agriculture (ODA) functioned as the overall program administrator and investigating authority. DEQ is the delegated authority under the federal Clean Water Act to issue National Pollutant Discharge Elimination System (NPDES) permits for wastewater discharges to surface waters, including discharges from CAFOs. However, DEQ chose not to issue NPDES permits for CAFO wastes because the state Water Pollution Control Facilities (WPCF) permit program was deemed to be more restrictive. The WPCF permit program prohibits the discharge of CAFO wastes to surface waters, whereas NPDES permits allow such discharges to surface water during large storm events.

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Why does the MOU need to be revised?

In 1993, the Oregon Legislature directed EQC and ODA to enter into a formal MOU to facilitate the transition of the CAFO permit program from DEQ to ODA. The MOU developed in May 1995 addressed transfer of the state WPCF permit program for CAFOs from DEQ to ODA. Since DEQ was not issuing NPDES permits to CAFOs at that time, NPDES permitting responsibilities were not transferred. EPA has since directed DEQ and ODA to issue NPDES permits to CAFOs that fit the federal definition of a *concentrated* animal feeding operation. In addition, the 2001 Oregon Legislature authorized and directed the transfer of the NPDES permit program for CAFOs from DEQ to ODA upon approval by EPA. The existing MOU between both agencies needs to be revised to reflect this recent legislation.

[Note: *Concentrated* animal feeding operations are a type of CAFO (*confined* animal feeding operation) and the term is defined in federal regulation. See Attachment A for federal and state definitions. EPA is scheduled to revise its animal feeding operation regulations in September 2002, which may change the definition of *concentrated* animal feeding operation.]

How was the MOU revised and what will be done differently?

The MOU was revised (Attachment B) to add specific NPDES CAFO program roles and responsibilities for each agency during and after transfer of the NPDES program.

During the transfer, ODA will continue as it did under the previous MOU to:

- Provide technical assistance to CAFO owners and operators;
- Implement the existing WPCF CAFO general permit; and
- Conduct compliance activities for permitted CAFOs, such as inspections and enforcement actions.

New tasks for ODA to facilitate NPDES program development prior to obtaining approval from EPA include:

- Development and implementation of administrative rules that are appropriate for the anticipated delegation of NPDES permitting authority;
- Working with DEQ to develop and implement a method of issuing NPDES permits until such delegation is received; and
- Promulgation of an NPDES CAFO general permit through joint rulemaking with DEQ.

DEQ will continue to assist ODA as needed during and after the transfer of NPDES program authority. After delegation of NPDES authority is approved by EPA, both agencies will continue to work together to address CAFO permitting issues in groundwater management areas and water quality limited streams, and maintain the State of Oregon's delegated authority to enforce the Clean Water Act.

Will the revised MOU change the current level of environmental protection?

The MOU revisions will not affect the level of environmental protection. The WPCF permit program is actively being administered by ODA with assistance from DEQ as needed. While NPDES permits may now be required for some CAFOs, the WPCF permit program remains protective of the environment by prohibiting the discharge of wastes to surface waters and protecting groundwater.

What will be different for CAFOs as a result of the revised MOU?

There will be no changes to the day-to-day operation of the CAFO permit program as a result of the revised MOU. CAFOs should not experience any difference in the way ODA handles the program. Both agencies intend to keep operators of CAFOs advised of NPDES permit development process. Once the NPDES general permit has been adopted, existing WPCF CAFO permits will be transitioned over a period of time to this permit.

Does ODA have adequate resources to implement the NPDES CAFO program?

ODA did not request any additional funding from the 2001 legislature to develop NPDES CAFO permits. However, it does expect to increase activities as result of the transfer of the NPDES CAFO program. With current staffing, ODA is working on establishing an inventory of CAFOs that may require NPDES permits. When the NPDES general permit is adopted, ODA expects to assign additional staff (approved under its current budget) to manage the increased workload of transitioning to this permit. ODA has also applied for a grant from EPA to cover additional activities, such as outreach and education. The grant has been approved, but not yet allocated as of late August.

EQC Action Alternatives The alternative would be to not update the MOU. However, to make the NPDES delegation transition to ODA as directed by the Legislature, this is not a preferred alternative.


Department Recommendation The Department recommends the Commission approve the revised MOU.

Attachments A. Current federal definition of "animal feeding operation" and "*concentrated* animal feeding operation" and state definition of "*confined* animal feeding operation"
B. Final 2002 Revised MOU
C. 1995 MOU

Available Upon Request A. ORS 468B.217 requiring formal MOU between EQC and ODA
B. 2001 Oregon Laws Chapter 248 authorizing transfer of NPDES CAFO permit program


Approved:

Section:



Michael H. Kortenhof
Manager, Surface Water Management

Division:



Michael T. Lewelyn
Administrator, Water Quality Division

Report Prepared By: Ranei Nomura

Phone: (503) 229-5657

Attachment A

Federal Definition of Animal Feeding Operation and Concentrated Animal Feeding Operation (as of July 2002) and State Definition of Confined Animal Feeding Operation

FEDERAL DEFINITIONS

Animal Feeding Operation (AFO) means a lot or facility (other than an aquatic animal production facility) where the following conditions are met:

- (i) Animals (other than aquatic animals) have been, are, or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12-month period, and
- (ii) Crops, vegetation forage growth, or post-harvest residues are not sustained in the normal growing season over any portion of the lot or facility. [40 CFR §122.23(b)(1)]

Concentrated Animal Feeding Operation means an “animal feeding operation” which meets the criteria in appendix B of this part, or which the Director designates under paragraph (c) of this section. [40 CFR §122.23(b)(3)]

Appendix B to §122 – Criteria for Determining a Concentrated Animal Feeding Operation (§122.23)

An animal feeding operation is a concentrated animal feeding operation for purposes of §122.23 if either of the following criteria are met:

- (a) More than the number of animals specified in any of the following categories are confined:
 - (1) 1,000 slaughter and feeder cattle,
 - (2) 700 mature dairy cattle (whether milked or dry cows),
 - (3) 2,500 swine each weighing over 25 kilograms (approximately 55 pounds)
 - (4) 500 horses,
 - (5) 10,000 sheep or lambs,
 - (6) 55,000 turkeys,
 - (7) 100,000 laying hens or broilers (if the facility has continuous overflow watering),
 - (8) 30,000 laying hen or broilers (if the facility has a liquid manure system),
 - (9) 5,000 ducks, or
 - (10) 1,000 animal units; or
- (b) More than the following number and types of animals are confined:
 - (1) 300 slaughter or feeder cattle,
 - (2) 200 mature dairy cattle (whether milked or dry cows),
 - (3) 750 swine each weighing over 25 kilograms (approximately 55 pounds)
 - (4) 150 horses,
 - (5) 3,000 sheep or lambs,
 - (6) 16,500 turkeys,
 - (7) 30,000 laying hens or broilers (if the facility has continuous overflow watering),

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Attachment A: Federal and State Definitions

- (8) 9,000 laying hen or broilers (if the facility has a liquid manure system),
- (9) 1,500 ducks, or
- (10) 300 animal units;

and either one of the following conditions are met: pollutants are discharge into navigable waters through a manmade ditch, flushing system or other similar manmade device; or pollutants are discharged directly into waters of the United States which originate outside of and pass over, across, or through the facility or otherwise come into direct contact with the animals confined in the operation.

Provided, however, that no animal feeding operation is a concentrated feeding operation as defined above if such animal feeding operation discharges only in the event of a 25 year, 24-hour storm event.

The term *animal unit* means a unit of measurement for any animal feeding operation calculated by adding the following numbers: the number of slaughter and feeder cattle multiplied by 1.0, plus the number of mature dairy cattle multiplied by 1.4, plus the number of swine weighing over 25 kilograms multiplied by 0.4, plus the number of sheep multiplies by 0.1, plus the number of horses multiplied by 2.0.

The term *manmade* means constructed by man and used for the purposed of transporting wastes.

STATE DEFINITION

Confined Animal Feeding Operation (CAFO) as defined in OAR 603-074-0010(3) means

- (a) The concentrated confined feeding or holding of animals or poultry, including but not limited to horse, cattle, sheep, or swine feeding areas, dairy confinement areas, slaughterhouse or shipping terminal holding pens, poultry and egg production facilities and fur farms
 - (A) In buildings or in pens or lots where the surface has been prepared with concrete, rock or fibrous material to support animals in wet weather; or
 - (B) That have wastewater treatment works; or
 - (C) That discharge any wastes into waters of the state; or
- (b) An animal feeding operation that is subject to regulation as a concentrated animal feeding operation pursuant to 40 CFR §122.23.

Attachment B
Final 2002 Revised MOU

Environmental Quality Commission and Oregon Department of Agriculture
Memorandum of Understanding
Relating to Confined Animal Feeding Operations

I. Parties

The Environmental Quality Commission (EQC) and the Oregon Department of Agriculture (ODA).

II. Purpose

This Memorandum of Understanding (MOU) replaces the prior MOU dated May 1995 between ODA and EQC. The prior MOU needed to be amended to address the roles and responsibilities of the agencies prior to, during and after the transfer of the NPDES program.

III. Effective Date

The MOU is effective on the date it is signed by both parties and it will remain effective until June 30, 2007 unless terminated or modified as provided in paragraphs XII and XIII.

IV. Authority

The MOU is authorized by Oregon Revised Statutes (ORS) 468B.217 and 2001 Oregon Laws Chapter 248.

V. Definition of Terms

Unless indicated otherwise by context, terms used in this MOU will be defined consistently with the Clean Water Act (33 USC §§1251), 40 Code of Federal Regulation (CFR) §122, ORS 468B.005; Oregon Administrative Rule (OAR) 340, Divisions 40, 41, 44 and 45; and OAR 603, Division 74.

A. *Confined Animal Feeding Operation (CAFO)* as defined in OAR 603-074-0010(3) means

1. The concentrated confined feeding or holding of animals or poultry, including but not limited to horse, cattle, sheep, or swine feeding areas, dairy confinement areas, slaughterhouse or shipping terminal holding pens, poultry and egg production facilities and fur farms
 - (i) In buildings or in pens or lots where the surface has been prepared with concrete, rock or fibrous material to support animals in wet weather; or
 - (ii) That have wastewater treatment works; or
 - (iii) That discharge any wastes into waters of the state; or

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2. An animal feeding operation that is subject to regulation as a concentrated animal feeding operation pursuant to 40 CFR §122.23.
- B. *Injection System or Underground Injection System* as defined in OAR 340-044-0005(24) means a well, improved sinkhole, sewage drain hole, subsurface fluid distribution system or other system or groundwater point source used for the subsurface emplacement or discharge of fluids.
- C. *General Permit* as defined in OAR 340-045-0010(7) means a permit issued to a category of qualifying sources pursuant to OAR 340-045-0033 in lieu of individual permits being issued to each source.
- D. *National Pollutant Discharge Elimination System (NPDES) Permit* means a waste discharge permit issued in accordance with Section 402 of the federal Clean Water Act, 33 USC §1251-1387. The federal Environmental Protection Agency (EPA) has delegated NPDES authority to the Department of Environmental Quality (DEQ). NPDES permits are issued pursuant to ORS 468B.035 and 050 and in accordance with procedures set forth in OAR 340-045.
- E. *Water Pollution Control Facilities (WPCF) permit* means a permit to construct and operate a disposal system with no discharge to navigable waters. A WPCF permit is issued pursuant to ORS 468B.050 by the Director of DEQ or ODA in accordance with the procedures of OAR Chapter 340, Division 45 or OAR 340-071-0162.
- F. *WPCF General Permit #800* means the WPCF general permit issued in accordance with the procedures of OAR 340-045-0033 for confined animal feeding operations.

VI. Background

- A. The Oregon Legislature established a special regulatory program for CAFOs in 1989, with an effective date of January 1, 1990. 1989 Oregon Laws Chapter 847. The legislation required DEQ to develop and issue CAFO permits pursuant to its WPCF permit program and it directed ODA to inspect CAFOs to ensure permit compliance.
- B. From the outset, ODA and DEQ worked cooperatively on water quality issues associated with CAFOs. This cooperation was encouraged by the governor and legislature and in 1993 the CAFO statutes were amended to direct the EQC and ODA to enter into a formal memorandum of understanding providing for ODA to run the CAFO program. The legislature authorized ODA to perform any function of the EQC or DEQ so long as the delegation is consistent with the MOU.
- C. In 2001, the legislature again amended the CAFO statutes. 2001 Oregon Laws Chapter 248. The purpose of the amendments was to authorize and direct the

transfer of the federally delegated NPDES permit program for CAFOs from DEQ to ODA at such time as the transfer is approved by the EPA.

VII. Authorities Delegated to ODA

To the maximum extent allowed by the delegation agreement between the state and EPA, ODA is authorized to perform the following functions of the EQC and DEQ with respect to CAFOs:

- A. All functions authorized by ORS 468.065 *Issuance of Permits; Content; Fees; Use*, 468.073 *Expedited or Enhanced Regulatory Process; Payment; Disposition of Payments*, 468.095 *Investigatory Authority; Entry on Premises; Status of Records*, and 468.120 *Public Hearings; Subpoenas, Oaths, Depositions*.
- B. All functions authorized by ORS 468B.020 *Prevention of Pollution*, 468B.032 *Alternative Enforcement Proceedings; Request; Public Notice; Fees*, 468B.035 *Implementation of Federal Water Pollution Control Act*, 468B.053 *Alternatives to Obtaining Water Quality Permit*, 468B.055 *Plan Approval Required; Exemptions; Rules*, 468B.095 *Use of Sludge on Agricultural, Horticultural or Silvicultural Land; Rules*, and 468B.200 et seq *Animal Waste Control*.
- C. All functions authorized by OAR Chapter 340, including, but not limited to, Divisions 45 *Regulations pertaining to NPDES and WPCF Permit* and 51 *Confined Animal Feeding or Holding Operations of Chapter 340*.

VIII. ODA Roles and Responsibilities

- A. Prior to EPA Approval of NPDES Program Delegation to ODA, ODA will:

Technical Assistance

- 1. To the extent possible, conduct an education program for CAFO operators in cooperation with the OSU Cooperative Extension Service to impart Best Management Practices (BMPs) for animal waste management systems.
- 2. Advise CAFO owner/operators about available state, federal, and private sources of technical and financial assistance for planning, designing, and implementing appropriate BMPs for animal waste management systems.

NPDES Program Development

- 3. Develop and implement administrative rules that are appropriate for the anticipated delegation of NPDES permitting authority to ODA.
- 4. Work with DEQ to develop and implement a method of issuing NPDES individual and general permits for qualifying CAFO facilities until such time as ODA has received the necessary delegated authority to operate a NPDES program for CAFOs.
- 5. Promulgate a new CAFO NPDES general permit through joint rulemaking with DEQ for use by new and existing operators.

NPDES and WPCF Permit Program Implementation

6. Receive and review permit applications for existing or proposed CAFOs.
7. Assign coverage to those applicant CAFO facilities that qualify for coverage under the existing WPCF General Permit #800 or future WPCF or NPDES general permits, or issue an individual permit if necessary.
 - (i) Permits will comply with OAR Chapter 340, Divisions 40 *Groundwater Quality Protection* and 41 *State-Wide Water Quality Management Plan; Beneficial Uses, Policies, Standards, and Treatment Criteria for Oregon*.
 - (ii) ODA will refer CAFOs discharging to injection systems regulated by OAR 340-044 *Construction and use of Waste Disposal Wells or Other Underground Injection Activities* to DEQ for registration and permitting.
 - (iii) ODA will continue to rely on EQC to grant exceptions or approvals as detailed in OAR. For example, approval of groundwater concentration limit variances [OAR 340-040-0030(4)] and approval to lower water quality in high quality waters [OAR 340-041-0026(1)(A)].
8. Review for approval or rejection animal waste management system plans and specifications for animal waste control facilities to verify the plans and specifications have been prepared pursuant to OAR 340-051 design criteria. ODA may develop its own method for accepting certification from outside professional engineers as to the sufficiency and quality of the plans and specifications. Prior to plan approval and when appropriate:
 - (i) ODA may request that DEQ review plans and specifications for construction, modification, or expansion of CAFOs to determine whether the proposed construction conforms to groundwater protection requirements.
 - (ii) ODA may request that DEQ review plans and specifications for CAFO systems not covered by Division 51, such as mechanical treatment systems or subsurface disposal systems.

Compliance Activities

9. Conduct periodic inspections of all permitted CAFOs. Inspections will include an evaluation of animal waste collection, treatment, handling, disposal and management procedures for compliance with the Clean Water Act, Oregon water quality law, and permit conditions.
10. Respond promptly to citizen complaints pertaining to the operation of CAFOs. ODA has primary responsibility for response to complaints received from the public, and for investigation of known or suspected violations of laws, rules, orders, permits, or water quality standards associated with CAFO facilities.

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11. Take prompt enforcement action when CAFOs violate permit conditions, water quality statutes, rules or orders in accordance with ODA enforcement procedures.
 12. Impose civil penalties, when appropriate, on the owner or operator of a CAFO for failure to comply with the provisions of ORS 468 or 468B, or any rules adopted thereunder, or for violations of a permit issued pursuant to ORS 468B, relating to the prevention and control of water pollution from a CAFO, subject to the provisions for civil penalties contained in ORS 183.415 and ORS 468B.230 and in 2001 Oregon Laws Chapter 248 (HB 2156).
 13. Develop and maintain a program database on all permit activities and produce periodic reports on the status of CAFO permits, complaint investigations, corrective orders, enforcement actions, and civil penalties imposed.
 14. Notify DEQ when a discharge violation threatens public health or safety.
- B. After EPA Approval of NPDES Permit Program Delegation to ODA, ODA will:
1. Work with DEQ to draft an amended MOU to address the changes resulting from such delegation.
 2. Work with DEQ to address CAFO permitting issues in groundwater management areas and water quality limited streams.
 3. Work with DEQ to maintain the State of Oregon's delegated authority to enforce the CWA.

IX. DEQ/EQC Roles and Responsibilities

- A. Prior to EPA Approval of NPDES Program Delegation to ODA, DEQ/EQC will:

Permit Program Assistance

1. Provide advice, assistance, training, and program guidance relative to surface and groundwater quality problems associated with animal waste, including but not limited to groundwater protection and monitoring requirements, permit writing, lagoon leakage testing, annual compliance inspections, data analysis, and sampling parameters and protocols.
2. Work with ODA to develop and implement a method of issuing NPDES permits for qualifying CAFO facilities until such time as ODA has received the necessary delegated authority to operate an NPDES program for CAFOs.
3. Assist ODA in developing administrative rules that are appropriate for the anticipated delegation of NPDES permitting authority to ODA.
4. Review plans as requested by ODA.

Agenda Item D, Action Item: Revision of EQC and ODA Memorandum of Understanding for
Confined Animal Feeding Operations Permit Program

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Attachment B: Final 2002 MOU

Compliance Activities

5. Refer all water pollution citizen complaints received on CAFOs and information regarding suspected violations of permits, rules, or water quality standards by CAFOs to ODA for investigation and follow-up.
 6. Consistent with existing law, conduct inspections only when requested by ODA or, in situations that present an imminent and substantial danger to human health or the environment, after notifying ODA if the situation is known by DEQ to be related to a CAFO.
 7. Initiate enforcement actions, within agency discretion, only as a direct result of the investigative actions outlined herein or upon request of ODA.
 8. Participate in annual reviews with ODA and work cooperatively with ODA to achieve the objectives of this agreement. The annual review may include file reviews as well as inspection of a small, agreed-upon number of animal feeding operations not under ODA jurisdiction across the state by a team representing ODA and DEQ.
- B. After EPA Approval of NPDES Permit Program Delegation to ODA, DEQ/EQC will:
1. Work with ODA to draft an amended MOU to address the changes resulting from such delegation.
 2. Work with ODA to address CAFO permitting issues in groundwater management areas and water quality limited streams.
 3. Work with ODA to maintain the State of Oregon's delegated authority to enforce the CWA.

X. No Third Party Rights

Nothing in this MOU constitutes or creates a defense on behalf of a regulated party.

XI. Resolution of Disagreements Regarding the Interpretation and Application of this MOU

In the event of disagreement regarding the interpretation and application of this MOU, agency staff will direct the disagreement to designated supervisors or other managers for resolution.

- A. In the case of ODA, the director or his designee has authority to resolve disputes.
- B. In the case of DEQ, the director or her designee has authority to resolve disputes.

XII. Modification of the MOU

This MOU may be modified at any time by written agreement of the parties.

Agenda Item D, Action Item: Revision of EQC and ODA Memorandum of Understanding for
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XIII. Termination of the MOU

This MOU may be terminated at any time and by either party after 60 days advance notice of intent to terminate and/or within 180 days after formal delegation has been achieved.

The notice must be provided in writing and served on the director of DEQ on behalf of the EQC or the director of the State Department of Agriculture on behalf of ODA.

Stephanie Hallock
Director of DEQ on behalf of the
Environmental Quality Commission

Phil Ward
Director of ODA

Date

Date

Agenda Item D, Action Item: Revision of EQC and ODA Memorandum of Understanding for
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Attachment C
1995 MOU

MEMORANDUM OF UNDERSTANDING BETWEEN
THE ENVIRONMENTAL QUALITY COMMISSION (EQC)
AND
OREGON DEPARTMENT OF AGRICULTURE (ODA)
FOR
PREVENTING AND CONTROLLING WATER POLLUTION
FROM CAFO FACILITIES

I. PURPOSE

In accordance with ORS 190.110 and ORS 468.015, this Memorandum of Understanding (MOU) sets forth the roles and responsibilities of the Department of Environmental Quality (DEQ), as directed by the Environmental Quality Commission (EQC), and the Oregon Department of Agriculture (ODA), for managing a statewide Confined Animal Feeding Operation (CAFO) waste management program.

II. IT IS MUTUALLY AGREED BY ALL PARTIES THAT:

- A. The ODA has an existing framework for working directly with the agricultural community to identify and implement conservation practices, and
- B. The ODA has extensive knowledge and experience in delivering information to the agricultural community, and
- C. Through Oregon Revised Statutes Chapter 468 and 468B, the DEQ has been designated the state agency responsible for preventing water pollution in the state from all sources, including CAFO facilities, and
- D. The statutory framework for the water pollution control program includes, in part, reviewing plans for waste disposal systems, issuing permits for waste disposal systems, and evaluating tax credit applications for water pollution control facilities, and
- E. ORS 468.035(c) authorizes DEQ to advise, consult, and cooperate with other agencies of the state with respect to all matters pertaining to the prevention and control of water pollution, and
- F. ORS 468B.217 requires the EQC and the ODA and to enter into a Memorandum of Understanding authorizing the ODA to operate a program to prevent and control water pollution from CAFOs, and authorizing ODA to perform any function of the EQC and DEQ in this capacity,
- G. ORS 468B.230 authorizes the ODA to enforce certain provisions and impose civil penalties on owners or operators of CAFOs for failure to comply with pertinent laws, rules, or permit requirements,

THEREFORE, through mutual agreement, the DEQ (as directed by the EQC) and ODA herein establish the following definitions, procedures and responsibilities to administer a statewide CAFO program.

III. DEFINITIONS.

For the purposes of this Memorandum of Understanding, permit program and enforcement activities, the following terms shall be defined as follows:

- A. Agronomic rate of application--a rate of applying animal waste to land such that the application matches the nutrient requirements of the crop cover on the site on an annual basis; however, as normally provided in permit conditions, such application of wastewater distributed on land for dissipation by evapotranspiration shall be at locations, at a time, and in a manner such that no contamination or impairment to designated beneficial uses of public waters is caused by runoff, seepage, or other means.
- B. Animal Waste Control Facility--all or any part of a system or systems used in connection with a confined animal feeding or holding operation for the (a) control of drainage; (b) collection, retention, treatment, and disposal of liquid waste or contaminated drainage waters; or (c) collection, handling, storage, treatment, or processing and disposing of manure.
- C. Animal Waste Management System Plan--pursuant to OAR 340-51-020, a facility-specific management plan as outlined in the Oregon Animal Waste Installation Guidebook and which includes: (a) a general description of the operation; (b) a detailed operation and maintenance plan and pertinent plans, specifications, and site drawings; (c) inventory data; (d) animal waste volume computations; and (d) inspection plans. The animal waste management system plan may also include groundwater monitoring requirements specified in OAR 340-40-030(a).
- D. Beneficial use(s)--those uses designated in water quality standards in OAR 340-41-026 through -975. For groundwater, the most important designated beneficial use is for public and private drinking water supplies; however, other beneficial uses may include industrial supplies, livestock watering, and as a base flow to surface waters.

Groundwaters which are known or assumed to be of high quality and which quality may naturally exceed the levels necessary to support beneficial uses (especially drinking water) shall be maintained at that level, unless otherwise allowed by variance (Refer to 340-40, Groundwater Quality Protection).

- E. Best Management Practices (BMPs)--effective and expedient methods, measures or practices including but not limited to schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent, reduce or control the pollution of waters of the state. BMPs also include treatment requirements, operating procedures, and practices to control site runoff, spillage or leakage, sludge or waste disposal, or drainage from raw material storage. BMPs may be applied before, during, and after pollution-producing activities to reduce or eliminate the introduction of pollutants into waters of the state.
- F. Confined Animal Feeding Operation (CAFO)--shall have the meaning given in ORS 468B.205; that is, the concentrated confined feeding or holding of animals or poultry, including but not limited to horse, cattle, sheep or swine feeding areas, dairy confinement areas, slaughterhouses or shipping terminal holding pens, poultry or egg production facilities, and fur farms, in buildings or in pens or lots where the surface has been prepared with concrete, rock or fibrous material to support animals in wet weather or which have waste water treatment works.
- G. Corrective Order or Order-- shall have the meaning given in ORS 183.310(5). An Order means any ODA or DEQ action expressed orally or in writing directed to a CAFO owner or operator, issued pursuant to OAR 603-74-040, or OAR 340-12-041.
- H. Discharge or Disposal--means the placement of wastes into public waters, on land, or otherwise into the environment in a manner that does or may tend to affect the quality of public waters.
- I. General Permit--a permit issued to a category of qualifying sources pursuant to OAR 340-45-033. A general permit is assigned to a qualified source in lieu of an individual permit written specifically for a particular facility.

- J. Land Use Compatibility Statement (LUCS)--a statement submitted by a permit applicant which provides information on activities that may significantly affect land use. The information contained in the statement assists the reviewing agency in determining whether an existing or proposed activity will comply with statewide land use goals, and that the activity is compatible with acknowledged comprehensive plans. (Reference to ORS 197.180)
- K. Nonpoint source--means diffuse or unconfined sources of pollution where contaminants may either enter public waters, or be conveyed by the movement of water to public waters.
- L. Point source--any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, or confined animal feeding operation from which pollutants are or may be discharged.
- M. Pollutant or water pollution--human-made or human induced alteration of the chemical, physical, biological, or radiological integrity of water; and as further defined in ORS 468B.005(3) and OAR 340-45-010(13).
- N. Waste or wastes--means sewage (including animal waste) and all other liquid, gaseous, solid, radioactive, or other substances which will or may cause pollution to waters of the state.
- O. Waters, public waters or waters of the State--shall have the meaning given in ORS 468B.005(8), which includes groundwater.
- P. WPCF Permit--a Water Pollution Control Facilities permit to construct or operate an animal waste disposal system which has no discharge to navigable waters. An individual WPCF permit is written for and issued to a specific facility by the authorized state agency in accordance with the procedures set forth in OAR 340-14-005 through 340-14-050.

IV. ODA DESIGNATED RESPONSIBILITIES:

The ODA agrees to:

- A. Conduct an education program for CAFO operators in cooperation with the OSU Cooperative Extension Service to impart Best Management Practices (BMPs) for animal waste control facilities.
- B. Advise CAFO owner/operators about available state, federal, and private sources of technical and financial assistance for planning, designing, and implementing appropriate BMPs for animal waste management systems.
- C. Act as DEQ's agent in receiving and reviewing registration/application forms for coverage under the CAFO general permit (General Permit Category 0800), and assigning coverage by general permit to those applicant CAFO facilities which qualify, in accordance with detailed procedures described in Section VI. A., which follows.
- D. Act as DEQ's agent in receiving and reviewing permit application forms and plans for existing or new proposed CAFO facilities, and issuing individual permits, if necessary, in accordance with procedures in Section VI. B. of this document. This would include applications from CAFOs previously operating under the general permit.
- E. Review for approval or rejection animal waste management system plans and specifications for animal waste control facilities to verify the plans and specifications have been prepared pursuant to OAR 340-51 and the Oregon Animal Waste Installation Guidebook design criteria, in accordance with Section X of this document. Prior to approval and if appropriate, the ODA may request that the DEQ review plans and specifications for construction, modification, or expansion of CAFOs to determine whether the proposed construction conforms with groundwater protection requirements. The ODA may also request that DEQ review plans and specifications for CAFO systems not covered by Division 51 or the design guide, such as mechanical treatment systems, or subsurface disposal systems.

- F. Strive to conduct at least one inspection per year for those CAFOs which have individual permits, or Corrective Orders in addition to their permit, and at least one inspection every five years for CAFOs under general permit.
- G. Respond promptly to citizen complaints pertaining to the operation of CAFO facilities. The ODA has first responsibility for response to complaints received from the public, and for investigation of known or suspected violations of laws, rules, orders, permits, or water quality standards associated with CAFO facilities. The ODA may negotiate separate agreements with Soil and Water Conservation Districts for complaint investigation and response.
- H. Negotiate with a permittee the terms and conditions to be included in a Corrective Order for CAFOs not in compliance with the conditions of the wastewater permit. The ODA will issue a unilateral Corrective Order when a negotiated Order cannot be achieved. The Corrective Order shall be in addition to the wastewater permit and not in lieu of it. The Corrective Order shall be issued by the ODA and signed by the Director of ODA or a designee.
- I. Take prompt enforcement action when CAFO facilities violate permit conditions, water quality statutes, rules or orders in accordance with ODA enforcement procedures. For non-CAFO livestock operations, the ODA may refer unresolvable complaints and violations to DEQ for investigation and enforcement.
- J. Impose civil penalties, when appropriate, on the owner or operator of a CAFO facility for failure to comply with the provisions of ORS 468 or 468B, or any rules adopted thereunder, or for violations of a permit issued pursuant to ORS 468B, relating to the prevention and control of water pollution from a CAFO, subject to the provisions for civil penalties contained in ORS 183.415 and ORS 468B.230.
- K. Develop and maintain a program database on all permit activities, and provide to EQC or DEQ, when requested, a report on the status of CAFO permits, complaint investigations, corrective orders, enforcement actions, and civil penalties imposed.

V. DEQ RESPONSIBILITIES

The DEQ agrees to:

- A. Provide advice, assistance, training, and program guidance relative to surface and ground water quality problems associated with animal waste, including but not limited to groundwater protection and monitoring requirements, permit writing, lagoon leakage testing, annual compliance inspections, data analysis, and sampling parameters and protocols.
- B. Recommend to EQC the issuance of tax credit certificates in accordance with procedures described in Section XII, below.
- C. Retain administrative oversight for the three existing individual permits until these permits are transferred to ODA oversight in accordance with the schedule contained in Section XIV, below.
- D. Retain enforcement responsibilities for existing individual permits (until transferred to ODA), and for other non-CAFO livestock operations.
- E. Refer all water pollution citizen complaints received on CAFOs and information regarding suspected violations of permits, rules, or water quality standards by CAFOs to ODA for investigation and follow-up, excepting those permits for which oversight has not yet been transferred to ODA.

VI. PERMIT PROGRAM PROCEDURES

A. General Permit (0800).

1. The ODA will distribute application forms to CAFO facilities which need to be covered by the general permit (Formally called General Permit 0800, WPCF Permit, covering any CAFO with a wastewater disposal system), unless ODA determines that an individual WPCF permit for the particular CAFO facility is necessary. Applications for general permits shall include pertinent general information and description of the activity, and if appropriate, a LUCS, an animal waste management system plan, and detailed plans and specifications.

2. Upon receipt of an application, the ODA will screen it for completeness, review the application to determine if the CAFO qualifies for a general permit, assign a maximum number of animals, and then assign coverage by the general permit if appropriate.
3. Facilities which would otherwise qualify for coverage by the general permit, but for whatever reason cannot immediately comply with all provisions, shall be issued a Corrective Order by ODA in addition to general permit coverage.
4. As allowed by statute and by this MOU, the ODA may perform any function of the EQC or DEQ relating to the control and prevention of water pollution from a CAFO. The ODA may on behalf of EQC and DEQ, modify, or revoke the general permit (General Permit 800), or issue new general permits in accordance with the requirements of OAR 340-45-033.
5. Fees for processing general permits may be charged in accordance with the fee schedule in OAR 340-45-075, and collected by the ODA.

B. Individual Water Pollution Control Facilities (WPCF) Permits

1. CAFO facilities which meet the following criteria shall be issued individual permits by the ODA:
 - a. for new CAFOs, if the proposed facility or system design cannot meet the requirements of the general permit; or
 - b. if the CAFO is not in compliance with conditions of the general permit, and ODA determines that resolution would take more than 2 years; or
 - c. if the ODA determines that the CAFO needs to monitor the waste management system or its environment and provide periodic reports to ODA to demonstrate compliance with water quality requirements; or

- d. for systems with treatment lagoons, if there is evidence that the lagoon leakage rate exceeds 1/8 inches per day, as evidenced by a DEQ acceptable leakage test; or
 - e. if groundwater quality monitoring data indicates that the CAFO adversely affects groundwater quality or surface waters into which the groundwater discharges; or
 - f. if the CAFO employs unconventional, experimental or unproven treatment methods (including constructed wetlands, mechanical treatment, or subsurface disposal systems), which require monitoring and periodic reporting to ensure proper performance and compliance with water quality requirements.
2. CAFOs which meet the criteria of Section VI.B.1.d. and e., above, or any CAFOs which are otherwise known or presumed to adversely impact groundwater quality, shall be issued individual permits containing requirements for performing hydrogeologic characterizations of groundwater. The hydrogeologic characterizations shall be completed in accordance with DEQ guidelines. If the hydrogeologic characterization indicates that the CAFO has the potential to adversely impact groundwater quality, then the CAFO shall be required to develop and undertake a groundwater monitoring program, and the permit will include specific groundwater concentration limits, pursuant to OAR 340-40-030.
 3. Individual WPCF permit application forms will be distributed by the ODA, and the application instructions shall include requirements for inclusion of a general description of the activity, relevant exhibits and supporting information, and a LUCS. The ODA will accept applications, review information, and follow the procedures set forth in OAR 340-14-005 through 045 for the issuance, renewal, modification, denial, revocation, transfer, and suspension of WPCF permits. Fees for processing individual permits may be charged in accordance with OAR 340-45-075, and collected by the ODA.

VII. CAFOS LOCATED IN WATER QUALITY MANAGEMENT AND PROTECTION AREAS

- A. Some CAFOs are now or may in the future be located in areas specially designated for water quality protection, such as groundwater management areas, wellhead protection areas, or a water quality management areas (e. g. Total Maximum Daily Loads (TMDLs) for surface water). To manage CAFO facilities in these areas, the ODA shall work with the DEQ to develop CAFO management strategies for the designated area, and the ODA shall be responsible for implementing the strategies.
- B. A management strategy may include, but not be limited to, compiling an inventory of CAFOs, inspection of all CAFO facilities in the area; establishing BMPs pertinent to the affected area, and working with area advisory committees to co-develop CAFO pollution prevention and control action plans and schedules. If CAFOs are determined to contribute to parameters of concern or otherwise adversely impact beneficial uses within a specially designated area, the management strategy may include provisions for more frequent source monitoring and inspection, more stringent permit conditions, enforceable animal waste management system plans for all CAFOs, issuing a general permit specific to the area, or requiring individual permits.

VIII. ALTERNATIVE PERMITS

- A. The ODA may develop and implement an alternative permit for CAFOS apart from the general permit (800) and individual WPCF permits. The permit would be developed in consultation with DEQ and in accordance with public information requirements. Alternative CAFO permits would provide enforceable conditions equivalent to the existing permitting program.
- B. The ODA shall be responsible for administration of the alternative permit and provide information as needed to the DEQ.

IX. CORRECTIVE ORDERS

- A. When a CAFO facility is not in compliance with the general permit or individual permit because of inadequate pollution control facilities, management, or waste disposal area, the ODA will issue a Notice of Noncompliance (NON) or

Corrective Order, pursuant to OAR 603-74-040. The NON may include a Corrective Order that specifies a schedule of actions to be taken. The NON and/or Order will be in addition to the general permit or individual permit, and will not replace it. The ODA will make reasonable attempts to negotiate a Corrective Order with the permittee; however, the Director of ODA or designee may issue a unilateral Corrective Order if a negotiated Order is not possible. The Director of ODA or designee will sign and issue the NON and/or Corrective Order to the permittee.

- B. Several CAFO facilities operating under the general permit have been issued Stipulated and Final Orders (SFOs) or Mutual Agreement and Orders (MAOs) by the DEQ. The ODA may act on behalf of the DEQ in enforcing all provisions of these orders until such time as the CAFO satisfies the conditions of the order, or the ODA and DEQ determine that the order should be replaced by a ODA-issued Corrective Order. If violation of a DEQ-issued order poses an immediate risk to public health or the environment, as determined by the ODA, the ODA may refer the violations to DEQ for enforcement.

X. PLANS AND SPECIFICATIONS REVIEW

- A. Oregon Revised Statutes (ORS) 468B.055 requires plans and specifications for water pollution control facilities to be reviewed by DEQ prior to construction, unless exempted from DEQ review by Commission rule, pursuant to OAR 340-52-045(3). The DEQ may exempt submittal of such plans where it has been determined that adequate review is conducted by another state agency. Pursuant to that rule, DEQ waives the requirement for plan submittal on animal waste control facilities where facilities have been designed and animal waste management system plans prepared in accordance with OAR 340-51 and the Oregon Animal Waste Installation Guidebook design criteria and so certified by ODA.
- B. The ODA may request technical assistance from the DEQ in the review of plans and specifications, particularly with regard to design criteria and requirements for mechanical treatment systems, subsurface disposal systems, constructed wetlands, and groundwater quality protection.

XI. COORDINATING EMERGENCY RESPONSE

- A. The ODA shall have the lead responsibility for responding to complaints and taking actions to address public concerns about CAFO facilities. When investigating citizen complaints about known or suspected releases of waste from a CAFO facility, the ODA shall obtain information about the material released, how the release occurred, actions underway to remediate the release, and potential for public health threat or environmental injury. If the ODA determines that public health or the environment may be harmed by releases from a CAFO facility, the ODA shall notify DEQ and other appropriate state and local authorities, and oversee efforts to obtain samples, clean up the site, or contain the release, as necessary.
- B. The DEQ shall refer all citizen complaints pertaining to CAFO and other non-CAFO livestock operations, to the ODA for investigation and follow-up. If a citizen complaint is received outside of normal business hours, and DEQ determines that no threat to public health or the environment exists, the DEQ shall document the complaint, and forward the documentation to ODA immediately next business day. If the DEQ determines that an emergency situation exists, the DEQ shall immediately contact the designated ODA representative to coordinate investigation and follow-up activities.

XII. TAX CREDITS

- A. Tax Credit Certification. The DEQ is responsible for the review of all tax credit applications for water pollution control facilities. The ODA will inform CAFOs of the opportunity for tax credits and the requirement to have plans approved prior to construction. If ODA reviews plans and specifications pursuant to Section X. above, and provides documentation of such to DEQ, the DEQ will accept that plan review as meeting the plan review requirements associated with tax credit certification without making an independent plan review.
- B. Certificates. When DEQ receives a request for a tax credit certificate, ODA will be requested to verify that the claimed facilities are in place and are working properly.

The ODA will provide such verification within 60 days of the request. Once verification has been received, the DEQ will review the application and prepare a recommendation for the Environmental Quality Commission.

XIII. COLLECTION AND DISTRIBUTION OF PERMIT FEES

- A. The ODA will use the fee schedules in OAR 340-45-075 and OAR 603-74-020 for general permit and individual WPCF permits. ODA will collect and retain all fees relating to the processing and assignment of coverage by general permits, and for those individual permits for which ODA has administrative oversight responsibilities.
- B. The DEQ will collect and retain fees for those existing individual permits not yet transferred to the ODA. Once the permit is transferred, the responsibilities for fee collection will be borne by the agency with oversight.

XIV. TRANSFER OF EXISTING INDIVIDUAL PERMITS

- A. The DEQ will transfer the three individual permits listed below to the ODA upon joint DEQ and ODA site inspection of each facility, and consultation between agencies to coordinate a smooth transition:
 - 1. J. R. Simplot Company
Simplot Feedlot #4
Morrow County, Oregon
WPCF Permit Number 100335
 - 2. Mallorie's Dairy
Silverton, Oregon
WPCF Permit Number 100457
 - 3. Oregon Dept of Corrections
Mill Creek Correctional Facility
Salem, Oregon
WPCF Permit Number 100240
- B. The joint DEQ/ODA inspections and consultations shall occur not later than July 1, 1995.

XV. LIMITATIONS

- A. Nothing in this MOU restricts the DEQ's right to inspect independently and take enforcement action on any source or suspected source of contamination or pollutant discharge; however, the DEQ recognizes that the ODA is the lead agency responsible for oversight of CAFO facilities and will exercise this right only in extraordinary circumstances.
- B. Nothing in this MOU constitutes or creates a valid defense to regulated parties operating in violation of environmental regulations, statutes, or permits.

XVI. AMENDMENTS AND TERMINATION

- A. This MOU may be modified at any time by mutual agreement of the parties. The Director of DEQ shall have authority to agree to amendments of an administrative nature on behalf of the Commission. Amendments or modifications with significant policy implications will be taken to the EQC for approval.
- B. Conveyance of jurisdiction in the administrative oversight of individual WPCF permits and the general permit is predicated upon the understanding that the ODA will provide equivalent and sustained protection of the environment. In the event that the ODA program fails to provide such protection, and upon mutual agreement of the ODA and the DEQ, then all or a portion of the CAFO program shall revert back to the DEQ.
- C. This MOU is in effect upon signature by all parties and will remain in effect until terminated by either agency, upon 180 days written notice, or until modified by mutual agreement.

STATE OF OREGON
DEPARTMENT OF AGRICULTURE



Director

5-5-95
Date

STATE OF OREGON
DEPT OF ENVIRONMENTAL QUALITY

AS APPROVED BY THE
ENVIRONMENTAL QUALITY
COMMISSION



Director

5/9/95
Date

State of Oregon
Department of Agriculture
Department of Environmental Quality

Memorandum

Date: October 1, 2002

To: Interested and Affected Public

Subject: Rulemaking Proposal and Rulemaking Statements for:

Oregon Department of Agriculture

- Adoption of OAR 603-074-0012 *Permit Procedures*, 0014 *Adoption of General Permit*, and 0018 *Design and Construction Review; Best Practical Waste Control Technology*
- Amendment to OAR 603-074-0020 *Fees: Application Eligibility and Requirements*.

Department of Environmental Quality

- Amendment to OAR 340-045-0033 *General Permits*
- Adoption of OAR 340-051-0007 *Implementation of OAR 340-051*
- Amendment to OAR 340-051-0010 *Definitions*

BACKGROUND

This memorandum contains information on the Departments of Agriculture and Environmental Quality's proposal to adopt and amend rules to issue a National Pollutant Discharge Elimination System (NPDES) General Permit for Confined Animal Feeding Operations (CAFOs). Pursuant to Oregon Revised Statutes (ORS) 183.335, this memorandum also provides information about the Environmental Quality Commission (EQC) and ODA director's intended action to adopt these rules. Additionally, it provides public notice of the proposed permitting action and opportunities for public participation as required by Oregon Administrative Rules (OAR) 340-045-0027.

What is being proposed?

For the Oregon Department of Agriculture (ODA), this proposal would:

- Adopt OAR 603-074-0012 to clarify that permits for CAFOs will be issued under the applicable provisions of OAR 340-045.
- Adopt OAR 603-074-0014 to issue an NPDES general permit for CAFOs. This general permit was developed jointly with the Department of Environmental Quality (DEQ).
- Adopt OAR 603-074-0018 to clarify design, construction, operation, maintenance, and plan review requirements for CAFO waste control facilities and operations.
- Amend OAR 340-074-0020 to clarify fee requirements.

For DEQ, this proposal would:

- Amend OAR 340-045-0033 to jointly issue the general permit with ODA.
- Adopt OAR 340-051-0007 to clarify that ODA has authority to implement OAR 340-051, and clarify design, construction, operation, maintenance, and plan review requirements for CAFO waste control facilities and operations so they are consistent with OAR 603-074-0018.
- Amend OAR 340-051-0010 to revise definitions so they are consistent with definitions in OAR 603-074-0010(3).

What is the statutory authority for these proposed revisions?

ODA has statutory authority to address these proposals under ORS 468B.050, 468B.217, 561.190, and 561.191, and Oregon Laws 2001, Chapter 248. DEQ has the statutory authority to address these rule revisions under ORS 468.020, 468B.020, 468B.035, and 468B.200 through 468B.230. These rules implement ORS 468.005, 468.065, 468B.005, 468B.015, 468B.035, 468B.050, 468B.200 to 468B.230, 561.191, and Oregon Laws 2001, Chapter 248.

WHAT'S IN THIS PACKAGE?

Attachments to this memorandum provide details on the proposal as follows:

- Attachment A The official statement describing the fiscal and economic impact of the proposed rules (required by ORS 183.335)
- Attachment B A statement providing assurance that the proposed rules are consistent with statewide land use goals and compatible with local land use plans
- Attachment C Questions to be answered to reveal potential justification for differing from federal requirements
- Attachment D The actual language of the proposed rule amendments (permit and fact sheet included)

HEARING PROCESS DETAILS AND PROCESS FOR SUBMITTING COMMENTS

When and Where are the Public Hearings?

ODA and DEQ are conducting public hearings during which comments will be accepted either orally or in writing. The hearings will be held as follows:

Public Hearings			
Date	November 7, 2002	November 13, 2002	November 14, 2002
Time	9:00 a.m.	7:00 p.m.	1:00 p.m.
Place	Eagle Crest Resort High Desert Room 1522 Cline Falls Hwy Redmond, OR 97556	OSU Extension Office Meeting Room 2204 4 th St. Tillamook, OR 97141	Oregon Dept. of Agriculture Basement Hearings Room 635 Capitol St. NE Salem, OR 97301
Presiding Officer	Lynda Horst, ODA	Lynda Horst, ODA	Lynda Horst, ODA

ODA and DEQ comply with the Americans with Disabilities Act (ADA). The ADA prohibits discrimination against persons with disabilities. Please notify ODA about any special physical or language accommodations you may need as far in advance of the hearing as possible. If you are interested and need special accommodations to participate in this hearing, please call ODA's Natural Resources Division, (503) 986-4700, at least 72 hours prior to the hearing. For the hearing impaired, phone TTY (503) 986-4762.

What is the deadline for submittal of Written Comments?

5 p.m., November 15, 2002

Written comments may be presented at the hearings or to ODA or DEQ anytime prior to the above date. Comments should be sent to ODA, Attn: Lynda Horst, 635 Capitol St. NE, Salem, Oregon 97301, or DEQ, Attn: Ranei Nomura, 811 SW 6th Avenue, Portland, Oregon 97204.

Will comments be accepted after the deadline?

In accordance with ORS 183.335(13), no comments may be accepted after the deadline for submission of comments has passed. If you wish for your comments to be considered by ODA or DEQ in the development of these rules, your comments must be received prior to the close of the comment period. **ODA and DEQ recommend that comments be submitted as early as possible to allow adequate review and evaluation of the comments submitted.**

WHAT HAPPENS AFTER THE PUBLIC COMMENT PERIOD CLOSSES?

Following the close of the public comment period, the Presiding Officer will prepare a report that summarizes the oral and written comments submitted. The public hearing will be tape recorded, but the tape will not be transcribed.

ODA and DEQ will review and evaluate their respective rulemaking proposals in light of all

information received during the comment period. Following the review, the DEQ rules may be presented to the EQC and the ODA rules to ODA's Director as originally proposed or with modifications made in response to public comments received.

The EQC will consider DEQ's recommendation for rule adoption during one of their regularly scheduled public meetings. The targeted meeting date for consideration of this rulemaking proposal is January 25 or 26, 2003. ODA's director will consider ODA's recommendation for rule adoption in mid-December 2002. These dates may be delayed if needed to provide additional time for evaluation and response to comments received during the hearing process.

You will be notified of the time and place for final action on these rules if you present oral comments at the hearing or submit written comment during the comment period. Otherwise, if you wish to be kept advised of this proceeding, you should request that your name be placed on the mailing list.

BACKGROUND ON DEVELOPMENT OF THE RULEMAKING PROPOSAL AND GENERAL PERMITS

Why is there a need for the rules, permit and joint rulemaking?

The 2001 Oregon legislature, through HB 2156 (2001 Oregon Laws, Chapter 248), directed ODA to seek approval from the federal Environmental Protection Agency (EPA) to transfer the CAFO portion of the NPDES permitting program from DEQ to ODA. As DEQ does not have an NPDES CAFO permit already in place and ODA has not yet received NPDES program delegation for CAFOs, development and adoption of such a permit requires rulemaking by both agencies. In addition, DEQ must amend its rules to reference ODA rules to facilitate this NPDES CAFO program transfer.

How were the rules and permit developed?

ODA and DEQ staff developed the proposed rule revisions and draft permit. An advisory committee was convened by ODA to assist in the development of the rule revisions and draft permit. Committee members included representatives from the beef, dairy, poultry, and equine industries, among others.

The documents relied upon include the following: ORS Chapters 183, 468, 468B, and 561; OAR Chapter 603, Division 74, OAR Chapter 340, Divisions 41 and 45; *Oregon Attorney General's Administrative Law Manual and Uniform and Model Rules of Procedure under the Administrative Procedures Act*, October 3, 2001; minutes of the CAFO advisory committee meetings in which Oregon CAFO General Permit development and rulemaking needs for ODA to obtain NPDES delegation were discussed; and 40 Code of Federal Regulation (CFR) §§ 122.122–124 and 412.

These documents are available for public inspection at ODA, 635 Capitol St. NE, Salem, Oregon, between 8:00 a.m. and 5:00 p.m. on normal business days, Monday through Friday. Please contact Lynda Horst or Cara Walker, ODA at (503) 986-4700 .

What does this permit regulate?

OAR 340-045-0027(4) requires that DEQ provide information on its permitting actions. The NPDES CAFO general permit may be used to regulate any CAFO that can meet the conditions of the permit. Since this is a general permit that covers different types of CAFOs and is not developed for individuals, specific facility information is not provided here. ODA estimates that as many as 1,000 CAFOs may need to register under the new general permit. Approximately 500 of these 1,000 CAFOs are currently permitted under the state Water Pollution Control Facilities (WPCF) permit program. These CAFOs are located throughout the state.

CAFOs confine animals, including poultry, for meat, milk, or egg production, or stable animals in pens or housing where they are fed or maintained in their place of confinement. Manure and wastewater from CAFOs have the potential to contribute pollutants such as nitrogen and phosphorus, organic matter, sediments, pathogens, heavy metals, hormones, antibiotics, and ammonia to the environment. Excess nutrients in water (*e.g.*, nitrogen and phosphorus) can result in or contribute to low levels of dissolved oxygen (anoxia), eutrophication, and toxic algae blooms.

Since this is a new permit there is no compliance history associated with it. The NPDES program does provide for some discretionary decisions to be made by DEQ. For example, the regulations allow for flexibility in monitoring and reporting requirements and in the development of required management practices.

How are water quality limited streams addressed and TMDLs implemented in this permit?

OAR 340-045-0035(3) requires DEQ to explain whether the NPDES CAFO general permit allows the discharge of pollutants that affect parameters for which a waterbody may be water quality limited under Section 303(d)(1) of the Clean Water Act, and if so, how the department can allow these permittees to discharge these pollutants to these waterbodies.

The CAFOs to be covered by this general permit have the potential to discharge to a variety of receiving streams. Most of these streams are listed as water quality limited for dissolved oxygen and temperature and many for bacteria. While CAFOs have the potential to discharge a variety of pollutants as discussed in the previous section, the CAFO general permit only allows the discharge of waste or wastewater to surface waters during either chronic or catastrophic rainfall events. This is defined as a 25-year, 24-hour storm event, including tornados, hurricanes, or other catastrophic conditions that would cause an overflow from the waste control facility. This is essentially a no discharge technology-based effluent limit required by the federal EPA. The

department does not expect waterbodies to exceed water quality standards as a result of CAFO discharges during chronic or catastrophic rainfall events because of high flows in the receiving waterbody and diluted nature of the wastewater at the time of discharge.

Permit coverage under the NPDES CAFO general permit may also be terminated if Total Maximum Daily Loads (TMDLs) are established and a CAFO's discharge during chronic rainfall or catastrophic events is determined to be a contributor to a stream that is water quality limited. In these situations, an individual permit or different general permit may be required that would include waste load allocations.

Who is affected by these rules and permits (including the public, regulated community or other agencies), and how are these groups affected?

The proposed rules will affect existing CAFOS currently permitted by ODA and other CAFOs that may need to be covered under the NPDES CAFO general permit.

How will these rules and permits be implemented?

Once the rules are adopted by EQC and ODA's director, they will be filed with the Secretary of State. The general permit will become effective on that filing date. ODA will transition existing WPCF CAFO permittees over a period of time to the NPDES general permit, as well as CAFOs that meet the criteria for a permit and have not been registered to the WPCF CAFO permit.

Are there time constraints?

The Oregon 2001 Legislature directed ODA and DEQ to seek EPA approval to transfer NPDES program authority for CAFOs from DEQ to ODA. Both agencies must continue to actively pursue EPA approval and program transfer.

CONTACT FOR MORE INFORMATION

If you would like more information on this rulemaking proposal, or would like to be added to the mailing list, please contact:

Lynda Horst
Natural Resources Division
Oregon Department of Agriculture
635 Capitol St. NE
Salem, OR 97301
(503) 986-4700
(503) 986-4730 fax
lhorst@oda.state.or.us

Ranei Nomura
Water Quality Division
Oregon Department of Environmental Quality
811 SW 6th Ave.
Portland, OR 97204
(503) 229-5657 or 1-800-452-4011, x5657,
toll-free inside Oregon
(503) 229-5408 fax
nomura.ranei@deq.state.or.us

Attachment A
State of Oregon
DEPARTMENT OF AGRICULTURE and DEPARTMENT OF ENVIRONMENTAL QUALITY
Rulemaking Proposal for
OAR Chapters 340 and 603 General CAFO NPDES Permit Adoption

Statement of Need and Fiscal and Economic Impact Statement

Title of Proposed Rulemaking

OAR Chapters 340 and 603 General CAFO NPDES Permit Adoption

Introduction

The Oregon Department of Agriculture (ODA) and Department of Environmental Quality (DEQ) are proposing to issue a new National Pollutant Discharge Elimination System (NPDES) general permit through rulemaking for confined animal feeding operations (CAFOs). CAFOs are defined in OAR 603-074-0010(3), and include those facilities that meet the federal definition of a "*concentrated* animal feeding operation." The proposed permit is referred to as the "Oregon General CAFO permit" and will replace the existing Water Pollution Control Facilities (WPCF) 0800 general permit to which most Oregon CAFOs are currently registered. There are approximately 500 permittees registered to the existing WPCF 0800 general permit. ODA anticipates that an additional 200-500 operations may be required to register to the new Oregon General CAFO permit.

In addition, DEQ is proposing changes to OAR Chapter 340, Division 51 to clarify definitions and reference ODA rules. These changes will not have a fiscal impact so they are not discussed in the fiscal and economic impact portion of this document. ODA is also proposing a new rule, OAR 603-074-0018, to outline its approval process for design, construction, operation, and maintenance plans for CAFO waste control facilities and operations.

Statutory Authority

ORS 468.020, 468B, 561.190, and 2001 Oregon Laws, Chapter 248 (House Bill 2156)

Statutes Being Implemented

ORS 468.005, 468.065, 468B.005, 468B.015, 468B.035, 468B.050, 468B.200, *et seq.*, and 2001 Oregon Laws, Chapter 248 (House Bill 2156).

Need for Rules

The 2001 Oregon legislature, through HB 2156 (2001 Oregon Laws, Chapter 248), directed ODA to seek approval from the federal Environmental Protection Agency (EPA) to transfer the CAFO portion of the NPDES permitting program from DEQ to ODA. As DEQ does not have an NPDES CAFO permit already in place and ODA has not yet received NPDES program delegation for CAFOs, development and adoption of such a permit requires rulemaking by both agencies. In addition, DEQ must amend its rules to reference ODA rules to facilitate this NPDES CAFO program transfer.

Principal Documents Relied On

ORS Chapter 183, Chapter 468, Chapter 468B, Chapter 561, OAR Chapter 603, Division 74, OAR Chapter 340, Divisions 41 and 45; *Oregon Attorney General's Administrative Law Manual and Uniform and Model Rules of Procedure under the Administrative Procedures Act*, October 3, 2001; minutes of the CAFO advisory committee meetings in which Oregon General CAFO permit development and rulemaking needs for ODA to obtain NPDES delegation were discussed; and 40 Code of Federal

Regulation (CFR) 122 —124 and 412.

These documents are available for public inspection at the Oregon Department of Agriculture, Director's office, 635 Capitol St. NE, Salem, Oregon, between 8:00 a.m. and 5:00 p.m. on normal business days, Monday through Friday.

Overview of Fiscal Impact

Existing Permittees: ODA does not anticipate much of an increase in expenses for compliance with this new permit over and above the expenses incurred with the existing WPCF 0800 permit for those facilities currently registered to the existing permit.

The fees for registration and renewal will remain the same at \$50 for registration and \$25 annual renewal fee. Most existing permittees are already in compliance with the terms and conditions of the new permit. Those facilities that are not in compliance with their current registration may have expenses associated with bringing the facility into compliance, but those costs and expenses will not increase as a result of the new permit. The same compliance standards exist under both permits.

However, the new permit requires that all facilities have an animal waste management plan prepared and implemented. Most existing CAFOs that are permitted have such a plan. For those facilities that do not yet have a plan for management of their waste, there may be costs incurred in preparing and implementing a plan. Plan preparation may cost anywhere from \$400 to \$4,800 assuming a range of 4 to 48 hours for a licensed engineer to develop a plan at a cost of \$100 per hour. Implementation of a plan will vary so greatly that an estimate of cost was not developed.

New Permittees: It is expected that new applicants will incur costs to comply with the permit, in addition to the registration and renewal fees as noted above. The cost of permit compliance will vary considerably for new facilities depending on the size and complexity of the operation. Other factors that will determine the cost for compliance include the type of facility, the level of employee expertise available to conduct compliance tasks, the costs for training employees, and the potential need to hire external contractors or consultants to perform some compliance tasks, such as developing an animal waste management plan. Because of this variability, estimates of costs were not developed.

It is expected that for both existing and new permittees there will be increased costs resulting from changes in the rules relating to construction approval. ODA is proposing to accept design and post-construction certification from licensed engineers for earthen impoundments, conveyances, animal holding areas and earthen-floored buildings and animal travel lanes between buildings in the production area. This change in the rules means that the permittees will be responsible for obtaining the engineering certification rather than having ODA review and approve these documents. The costs to the permittees for obtaining such engineering certification will vary greatly, depending on the cost of the engineer and the complexity of the project. Based on an estimated fee of \$100 per hour for a licensed engineer, these costs may range from a few hundred to several thousands of dollars. The variability is so great that it is not possible to develop accurate estimates.

General Public

The general public may be indirectly affected by the proposal. CAFOs could pass the additional permit costs to consumers in the form of marginally higher prices for goods and services. However, the potential price impact for consumers is expected to be minimal.

Small Business

The majority of CAFOs currently registered to the existing permit are small businesses. For those facilities, costs to comply with the new permit will be minimal if they are currently in compliance. There will be costs associated with preparation and implementation of an animal waste management plan, but these costs are site specific and will vary widely.

Small operations obtaining coverage under the Oregon CAFO general permit for the first time may see costs in excess of \$1,000 if an animal waste management plan has not be developed or implemented for that facility. Construction of waste management structures or systems would require additional expense, depending on the type and size of the facility and the type of waste being managed. For example, costs associated with a dairy may be higher than those associated with a beef feed lot or a horse boarding facility.

Except for the costs associated with development and implementation of an animal waste management plan, permit conditions that require expenditures will not vary much between the existing permit and the new permit. Annual compliance costs, once an approved plan has been implemented, will not necessarily be higher than those required under the 0800 general permit.

Large Business

Large CAFOs obtaining permit coverage under this permit for the first time likely will have the greatest costs. However, compliance criteria remain the same, regardless of the size of the operation. Clearly, the greater number of animals, the greater the generation of waste to manage, and therefore the larger in size the waste storage structures must be, or, if larger storage is not available, the more intensively managed the facility must be. Such management may include increased costs for training, staff, and related expenses.

Local Governments and State Agencies

Any governments or state agencies operating CAFOs will have the same expenses as those small and large businesses in the private sector.

DEQ does not expect an increase in revenues or expenses as a result of the proposed permit. ODA will see an increase in revenue and expenses if additional CAFOs are permitted under the proposed permit.

Advisory Committees

ODA s director appointed a CAFO rules advisory committee representing producers, landowners, extension agencies, environmental groups, and the public, from all segments of the community involved in animal feeding operations for the purpose of assisting the department with development of the permit and rules.

Housing Cost Impact Statement

ODA and DEQ have determined that this proposed rulemaking will have no effect on the cost of development of a 6,000 square foot parcel and the construction of a 1,200 square foot detached single family dwelling on that parcel.

Attachment B
State of Oregon
DEPARTMENT OF AGRICULTURE and DEPARTMENT OF ENVIRONMENTAL QUALITY
Rulemaking Proposal for
OAR Chapters 340 and 603 General CAFO NPDES Permit Adoption
Land Use Evaluation Statement

1. Explain the purpose of the proposed rules.

For the Oregon Department of Agriculture (ODA), this proposal would:

- Adopt OAR 603-074-0012 to clarify that permits for CAFOs will be issued under the applicable provisions of OAR 340-045.
- Adopt OAR 603-074-0014 to issue an NPDES general permit for CAFOs. This general permit was developed jointly with the Department of Environmental Quality (DEQ).
- Adopt OAR 603-074-0018 to clarify design, construction, operation, maintenance, and plan review requirements for CAFO waste control facilities and operations.
- Amend OAR 340-074-0020 to clarify fee requirements.

For DEQ, this proposal would:

- Amend OAR 340-045-0033 to jointly issue the general permit with ODA.
- Adopt OAR 340-051-0007 to clarify that ODA has authority to implement OAR 340-051, and clarify design, construction, operation, maintenance, and plan review requirements for CAFO waste control facilities and operations so they are consistent with OAR 603-074-0018.
- Amend OAR 340-051-0010 to revise definitions so they are consistent with definitions in OAR 603-074-0010(3).

2. Do the proposed rules affect existing rules, programs or activities that are considered land use programs in the DEQ State Agency Coordination (SAC) Program?

Yes No

a. If yes, identify existing program/rule/activity:

NPDES permitting activities

b. If yes, do the existing statewide goal compliance and local plan compatibility procedures adequately cover the proposed rules?

Yes No (if no, explain):

A land use compatibility statement signed by the local land use authority is required from each applicant prior to registration under the NPDES general CAFO permit.

c. If no, apply the following criteria to the proposed rules.

N/A

In the space below, state if the proposed rules are considered programs affecting land use. State the criteria and reasons for the determination.

N/A

3. If the proposed rules have been determined a land use program under 2. above, but are not subject to existing land use compliance and compatibility procedures, explain the new procedures the department will use to ensure compliance and compatibility.

Attachment C
State of Oregon

DEPARTMENT OF AGRICULTURE and DEPARTMENT OF ENVIRONMENTAL QUALITY
Rulemaking Proposal for
OAR Chapters 340 and 603 General CAFO NPDES Permit Adoption

Questions to be Answered to Reveal
Potential Justification for Differing from Federal Requirements

Relationship to Federal Requirements

Answers to the following questions identify how the proposed rulemaking relates to federal requirements and potential justification for differing from federal requirements. The questions are required by OAR 340-011-0029.

- 1. Are there federal requirements that are applicable to this situation? If so, exactly what are they?**

The Departments of Agriculture and Environmental Quality are proposing to adopt through rulemaking a National Pollutant Discharge Elimination System (NPDES) general permit for confined animal feeding operations (CAFO). The following federal requirements apply to this general permit:

- 40 CFR/ 122 *EPA Administered Permit Programs: National Pollutant Discharge Elimination System*
- 40 CFR/ 122.23 *Concentrated Animal Feeding Operations*
- 40 CFR/ 122.28 *General Permits*
- 40 CFR/ 412 *Effluent Guidelines and Standards —Feedlots Point Source Category*

There are no applicable federal requirements for department approval of design and construction plans for waste control facilities (adoption of OAR 603-074-0018 and 340-051-0007).

- 2. Are the applicable federal requirements performance based, technology based, or both with the most stringent controlling?**

The applicable federal requirements are technology based.

- 3. Do the applicable federal requirements specifically address the issues that are of concern in Oregon? Was data or information that would reasonably reflect Oregon's concern and situation considered in the federal process that established the federal requirements?**

The applicable federal requirements do address permit specific issues in Oregon. Data and information used to establish the federal requirements can be reasonably assumed to reflect Oregon's concerns.

- 4. Will the proposed requirement improve the ability of the regulated community to comply in a more cost effective way by clarifying confusing or potentially conflicting requirements (within or cross-media), increasing certainty, or preventing or reducing the need for costly retrofit to meet more stringent requirements later?**

The adoption of the CAFO NPDES general permit will improve the ability of the regulated community to comply with both state and federal requirements by combining these requirements into one permit. The general permit will clarify potentially conflicting requirements over when a permit is required and specify the minimum design standard for waste control facilities. This permit is also more efficient to administer because its conditions are generally applicable to all types

of CAFOs so the development of individual, site-specific permits are not required. These cost savings are passed on to the regulated community.

5. Is there a timing issue which might justify changing the time frame for implementation of federal requirements?

There is no timing issue. The federal requirement for NPDES permitting of concentrated animal feeding operations has been in place since the 1970s. There is no required federal timeframe for adopting a general permit.

6. Will the proposed requirement assist in establishing and maintaining a reasonable margin for accommodation of uncertainty and future growth?

The proposal to adopt this general permit does not affect the issue of accommodation of uncertainty and future growth.

7. Does the proposed requirement establish or maintain reasonable equity in the requirements for various sources? (level the playing field)

The proposed general permit establishes reasonable equity amongst the different types of CAFOs by requiring similar conditions and design standards for nutrient management and waste control facilities.

8. Would others face increased costs if a more stringent rule is not enacted?

No.

9. Does the proposed requirement include procedural requirements, reporting or monitoring requirements that are different from applicable federal requirements? If so, Why? What is the "compelling reason" for different procedural, reporting or monitoring requirements?

No. However, the general permit does cover a larger group of animal feeding operations. The state definition of CAFO (*confined* animal feeding operation) includes federal *concentrated* animal feeding operations as well as animal feeding operations. The state's CAFO program was authorized by the Oregon Legislature to include a broader range of animal feeding operations and ODA will be making this permit available to these operations.

10. Is demonstrated technology available to comply with the proposed requirement?

Yes.

11. Will the proposed requirement contribute to the prevention of pollution or address a potential problem and represent a more cost effective environmental gain?

The proposed general permit prevents pollution by prohibiting the discharge of wastes and wastewaters unless there is a chronic or catastrophic rain event. The permit may also be used to regulate potential problem CAFOs. In addition, as discussed previously in #4, a general permit is more cost effective to administer which results in a more cost effective environmental gain.

Attachment D
State of Oregon

DEPARTMENT OF AGRICULTURE and DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal for

OAR Chapters 340 and 603 General CAFO NPDES Permit Adoption

(strikeout indicates deleted text; underline indicates proposed revisions)

CHAPTER 603, DIVISION 074
CONFINED ANIMAL FEED OPERATION PROGRAM
(strikeout indicates deleted text; underline indicates inserted text)

603-074-0012

Permit Procedures

Except as provided in OAR 603-074-0020 below, permits for Confined Animal Feeding Operations will be issued under the applicable provisions of OAR chapter 340, division 45. For purposes of this rule division, however, the term department in OAR 340-045-0010(2) means the Oregon Department of Agriculture and the term director in OAR 340-045-0010(3) means the Director of the Oregon Department of Agriculture unless a different meaning is clearly indicated by context.

Stat. Auth.: ORS 468B.050; 468B.217; ORS 561.190, ORS 516.191 Or. Laws 2001, chapter 248, Section 1(2).

Stats. Implemented: ORS 468B.050; 468B.200 to 468B.230; ORS 561.191, Or. Laws 2001, chapter 248.

603-074-0014

Adoption of General Permit

- (1) The following general permit is adopted by reference in this rule and available for review at the department:
 - (a) NPDES number 01 (Confined Animal Feeding Operations)(issued on February , 2003).
 - (b) A complete copy of the general permit is available for inspection at the Oregon Department of Agriculture, Natural Resources Division, 635 Capitol St. NE, Salem, Oregon.
- (2) Any person currently registered under the DEQ General Permit number 0800 [OAR 340-045-0033(10)(e)] may continue to be covered by that permit until requested by the Department to apply for coverage under the Oregon CAFO General Permit number 01 or until January 31, 2006, whichever occurs first.
- (3) Any person issued an individual WPCF permit for a CAFO must apply for an individual NPDES permit or coverage under the Oregon CAFO General Permit at least 180 days prior to expiration of its individual WPCF permit. The department may grant permission in writing for a later date provided it is not later than the expiration date of the existing permit. The individual WPCF permit will remain in effect until final action has been taken on the application.

Stat. Auth.: ORS 468B.050; 468B.217; ORS 561.190; ORS 561.191; Or. Laws 2001, chapter 248, Section 1(2).

Stats. Implemented: ORS 468B.050; 468B.200 to 468B.230; ORS 561.191, Or. Laws 2001, chapter 248.

603-074-0015

Complaint Evaluation

[renumbered to OAR 603-074-0016]

603-074-0018

Design and Construction Review: Best Practical Waste Control Technology

- (1) Except as provided in subsections (3) to (7) below, waste control facilities and operations permitted under OAR 603-074-0012 are subject to provisions of OAR chapter 340, division 51 relating to the use of best practicable waste control technology and review and approval of facility location, design, construction, operation and maintenance.
- (2) For purposes of this rule division, however, the term department in OAR 340-051-0010(1) means the Oregon Department of Agriculture, and the term confined animal feeding operation in OAR 340-051-0010(2) has the meaning set out in OAR 603-074-0010(3) unless a different meaning is clearly indicated by context.
- (3) The department will accept design and post-construction certification by a licensed engineer for earthen impoundments, conveyances, animal holding areas and earthen-floored buildings and animal travel lanes between buildings in the production area.
- (4) The department will accept design and post-construction certification by a licensed engineer for primary storage structures for liquid and solid manure. For purpose of this rule section a primary storage structure is any storage structure intended to hold an operations waste for a period of five or more days.
- (5) Certification under sections (3) and (4) must be submitted on forms approved by the department. The licensed engineer must certify that the facilities were designed and constructed in compliance with the guidelines in OAR 340-051-0055 to 340-051-0070.
- (6) Certification under sections (3) or (4) will not be allowed for waste control facilities using experimental or unproven treatment methods or technology. Certification under sections (3) or (4) may be disallowed for any other facility if the department determines that the nature of the facility or operation or the location of the facility or operation is such that department review is needed to ensure protection of waters of the state.
- (7) Construction or modification of waste control facilities other than impoundments, conveyances, holding areas, buildings and animal travel lanes within the production area, and primary storage structures are not subject to design or post-construction review and approval requirements unless the department determines that the nature of the facility is such that review is needed to ensure protection of waters of the state.

Stat. Auth.: ORS 468B.050; ORS 468B.217; ORS 561.190; ORS 561.191; Or. Laws 2001, chapter 248 Section 1(2).
Stats. Implemented: ORS 468B.050; ORS 468B.055; ORS 468B.200 to 468B.230; [ORS 561.191] Or. Laws 2001, chapter 248.

603-074-0020

Fees: Application Eligibility and Requirements

- (1) A filing fee of \$50 shall accompany any application for registration to or issuance, renewal, modification or transfer of an NPDES CAFO permit. This fee is in addition to any application processing fee or annual compliance determination fee which might be imposed as provided in OAR chapter 340, division 45.
- (2) ~~(1)~~ In addition to those fees provided for in OAR chapter 340, division 45, All persons operating a confined animal feeding operation as defined in OAR 603-074-0010(3) with wastewater treatment works and with animals contained in a confined area for four months or more shall submit an annual registration fee of \$25 to the department.
- (3) Except for animal feeding operations subject to regulation under 33 USC/1342, a fee will not be assessed to nor a permit required of those operations that confine for four months or less duration or that do not have waste water control facilities.

- (4) ~~(2)~~The annual registration fee shall be paid to the department and be effective with the state's fiscal year July 1 - June 30 and shall be paid no later than July 31. The fee shall be paid on an annual basis by those persons described in section (1) of this rule.
- (5) ~~(3)~~All fees shall be paid to the department and are non-refundable and non-transferable.

Stat. Auth.:ORS 561.190 & ORS 561.191

Stats. Implemented: OL Ch. 248, HB 2156

Hist.: AD 12-1990, f. & cert. ef. 6-4-90; AD 8-1994, f. & cert. ef. 7-26-94; DOA 15-2001(Temp), f. & cert. ef. 7-2-01 thru 12-28-01; DOA 28-2001, f. & cert. ef. 12-31-01; Or. Laws 2001, chapter 248.

CHAPTER 340, DIVISION 045
REGULATIONS PERTAINING TO NPDES AND WPCF PERMITS
(strikeout indicates deleted text; underline indicates inserted text)

340-045-0033

General Permits

- (1) The Director may issue general permits for certain categories of minor discharge sources or minor activities where individual NPDES or WPCF permits are not necessary to adequately protect the environment. Before the Director can issue a general permit, the following conditions must be met:
- (a) There must be several minor sources or activities that involve the same or substantially similar types of operations.
 - (b) The sources or activities must have the potential to discharge or dispose of the same or similar types of wastes.
 - (c) The general permit must require the same or similar monitoring requirements, effluent limitations and operating conditions for the categories.
 - (d) The category of sources or activities would be more appropriately controlled under a general permit than an individual permit.
 - (e) The Commission has adopted the general permit into rule by reference.
- (2) General permits issued after the effective date of this rule will specify the following:
- (a) The requirements to obtain coverage under a general permit, including application requirements and application submittal deadlines. The Department may determine that submittal of an application is not necessary after evaluating the type of discharge, potential for toxic and conventional pollutants in the discharge, expected discharge volume, availability of other means to identify dischargers, and estimated number of dischargers to be covered by the permit. The Department's evaluation must be provided in the public notice for the general permit.
 - (b) The process used by the Department to notify a person that coverage under a general permit has been obtained and the discharge or activity is authorized.
- (3) Although general permits may include activities throughout the state, they may also be restricted to more limited geographical areas.
- (4) Prior to issuing a general permit, the Department will follow the public notice and participation procedures outlined in OAR 340-045-0027, 340-045-0035(3), and ORS 183.325 to 183.410. In addition the Department will make a reasonable effort to mail notices of pending actions to those persons known by the Department who are likely to be covered by the general permit.
- (5) Any person operating a discharge source or conducting an activity described in a general permit must apply for coverage under the general permit, unless the general permit does not require submission of an application pursuant to (2)(a) of this rule or the source or activity is specifically covered by an individual NPDES or WPCF permit. Any person seeking coverage under a general permit must submit an application as required under the terms of the applicable NPDES or WPCF general permit. If application requirements are not specified in the general permit, procedures in OAR 340-045-0030 or OAR 340-071-0162, whichever is applicable, must be followed. A person who fails to submit application in accordance with the terms of the general permit, OAR

OAR Chapters 340 and 603 General CAFO NPDES Permit Adoption
Attachment D: Proposed Amendments to Oregon Rules

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- 340-045-0030 or OAR 340-071-0162, whichever is applicable, is not authorized to conduct the activity described in the permit.
- (6) Any person required to have coverage under a general permit must pay permit fees as required in OAR 340-045-0070 to 340-045-0075 or OAR 340-071-0140 to obtain and maintain coverage under that permit.
 - (7) Any permittee covered by an individual NPDES or WPCF permit may request that the individual permit be canceled or allowed to expire, and that it be covered by a general permit if its discharge or activity may be covered by an existing general permit. As long as the permittee is covered by an individual NPDES or WPCF permit, the conditions and limitations of the individual permit govern, until such time as it is canceled or expires.
 - (8) Any person not wishing to be covered by a general permit may make application for an individual permit in accordance with OAR 340-045-0030 or OAR 340-071-0162, whichever is applicable.
 - (9) The Director may revoke coverage and authorization under a general permit pursuant to OAR 340-045-0060 as it applies to any person and require such person to apply for and obtain an individual NPDES or WPCF permit. Any interested person may petition the Director to take action under this section. Cases where an individual permit may be required include the following:
 - (a) The discharge or activity is a significant contributor of pollution or creates other environmental problems;
 - (b) The permittee is not in compliance with the terms and conditions of the general permit, submitted false information, or is in violation of any applicable law;
 - (c) A change occurs in the availability of demonstrated technology or practices for the control or abatement of pollutants being discharged;
 - (d) For NPDES general permits, effluent limitation guidelines are promulgated for point sources covered by a general permit and the guidelines are not already in the general permit; or
 - (e) Circumstances have changed so that the discharge or activity is no longer appropriately controlled under a general permit, or either a temporary or permanent reduction or elimination of the authorized discharge is necessary.
 - (10) The following general permits are adopted by reference in this rule and available for review at the Department:
 - (a) NPDES 200-J, Filter backwash (issued August 29, 1997)
 - (b) NPDES 500-J, Boiler blowdown (issued August 29, 1997)
 - (c) WPCF 600, Offstream placer mining (issued April 9, 1997)
 - (d) NPDES 700-J, Suction dredges (issued May 3, 1999)
 - (e) WPCF 800, Confined animal feeding operations (issued August 8, 1990)
 - (f) NPDES 900-J, Seafood processing (issued June 7, 1999)
 - (g) WPCF 1000, Gravel mining (issued July 26, 2002)
 - (h) NPDES 1200-A, Storm water runoff from sand, gravel & non-metallic quarrying & mining in Standard Industrial Classification (SIC) 14, asphalt mix batch plants, and concrete batch plants. Facilities may qualify for a conditional exclusion from the requirement to obtain a permit if there is no exposure of industrial activities and materials to storm water pursuant to 40 CFR/122.26(g); see permit for details. (issued July 26, 2002)
 - (i) NPDES 1200-C, Storm water runoff from construction activities, including clearing, grading, and excavation, and stockpiling that disturbs five or more acres, including activities that will disturb five or more acres over time as part of a larger common plan of development; effective December 1, 2002, construction activities that disturb one or more acre are covered (issued February 20, 2001)
 - (j) NPDES 1200-CA, Government agencies responsible for storm water runoff from construction activities that disturbs five or more acres; effective December 1, 2002, construction activities that disturb one or more acres are covered (issued February 20, 2001)
 - (k) NPDES 1200-COLS, Storm water runoff in the Columbia Slough watershed from industrial activities listed in 8(l) of this rule (issued December 22, 1999)
 - (l) NPDES 1200-Z, Storm water runoff from: Warehousing in SIC 4221-4225; Food processing in SIC 20; Landfills, land app. sites; Heavy industrial in SIC 28, 29, 30, 31, 32, 33 & steam electric power generating (includes coal/hogged fuel handling); Light mfg. in SIC 34, 35, 36, 37, 38 & 39 includes ship & boat building/repair; Printing in SIC 27; Textile & apparel mfg. in SIC 22 & 23; Transportation in SIC 40, 41, 42, 43, 44, 45 & 5171; Wood products mfg. in SIC 24 & 25; Metal scrap yards, battery reclaimers & auto salvage yards in SIC 5015 & 5093; Hazardous waste treatment, storage, & disposal facilities. Facilities may qualify for a conditional exclusion from the requirement to obtain a permit if there is no exposure of industrial activities and materials to storm water pursuant to 40 CFR/122.26(g); see permit for details. (issued July 26, 2002)

- (m) NPDES 1300-J, Oily storm water runoff and oil/water separators (issued January 11, 2000)
- (n) WPCF 1400-A, Seasonal food processing & wineries, less than 25,000 gallons/day (issued August 22, 2000)
- (o) WPCF 1400-B, Other food processing, less than 25,000 gallons/day (issued August 22, 2000)
- (p) NPDES 1500-A, Petroleum hydrocarbon cleanups discharged to surface waters (issued August 22, 2000)
- (q) WPCF 1500-B, Petroleum hydrocarbon cleanups (issued August 22, 2000)
- (r) NPDES 1700-A, Vehicle and equipment wash water discharged to surface waters (issued March 5, 1998)
- (s) WPCF 1700-B, Vehicle and equipment wash water (issued March 5, 1998)
- (t) NPDES 1900-J, Non-contact geothermal heat exchange (issued September 11, 1997)
- (u) NPDES CAFO general permit 01 (issued *insert date of EOC meeting at which permit is adopted*)

Stat. Auth.: ORS 468.020, ORS 468B.020 & ORS 468B.035

Stats. Implemented: ORS 468.065, ORS 468B.015, ORS 468B.035 & ORS 468B.050

Hist.: DEQ 28-1980, f. & ef. 10-27-80; DEQ 15-2000, f. & cert. ef. 10-11-00; DEQ 13-2001, f. & cert. ef. 10-16-01;

DEQ 8-2002, f. & cert. ef. 8-9-02

CHAPTER 340, DIVISION 051 CONFINED ANIMAL FEEDING OR HOLDING OPERATIONS (strikeout indicates deleted text; underline indicates inserted text)

340-051-0007

Implementation of OAR 340-051

- (1) Oregon Department of Agriculture Authority Pursuant to ORS 468B.200 through 468B.230 and the Memorandum of Understanding between the Environmental Quality Commission and Oregon Department of Agriculture dated (*insert date MOU adopted by EOC*), the Oregon Department of Agriculture is authorized to implement the provisions of Chapter 340, Division 051 consistent with OAR Chapter 603, Division 074 *Confined Animal Feeding Operation Program*.
- (2) Certification of Plans and Specifications In lieu of Department approval of plans and specifications as required by OAR 340-051-0015, the Department will accept certification by a licensed engineer that waste control facilities specified in subsection (2)(a) of this rule were designed and constructed in compliance with OAR 340-051-0055 through 340-051-0070.
 - (a) Certifications may only be made for:
 - (A) Earthen impoundments, conveyances, and animal holding areas;
 - (B) Earthen-floored buildings and animal travel lanes between buildings in the production area; and
 - (C) Primary storage structures for liquid and solid manure. For purpose of this paragraph, a primary storage structure is any storage structure intended to hold an operation s waste for a period of five or more days.
 - (b) Certifications must be submitted on forms approved by the Department.
 - (c) Certification in lieu of Department approval is not allowed for waste control facilities using experimental or unproven treatment methods or technology and may be disallowed for any other facility if the Department determines that the nature of the facility or operation is such that Department review is needed to ensure protection of waters of the state.
- (3) Exclusion from Department Approval Construction or modification of waste control facilities other than impoundments, conveyances, holding areas, buildings and animal travel lanes within the production area, and primary storage structures are not subject to design or post-construction review and approval requirements unless the Department determines that the nature of the facility is such that review is needed to ensure protection of waters of the state.

OAR Chapters 340 and 603 General CAFO NPDES Permit Adoption
Attachment D: Proposed Amendments to Oregon Rules

p. D-6

Stat. Auth.: ORS 468.020, & ORS 468B.200 through 468B.230

Stats. Implemented: ORS 468.005, ORS 468B.005 & ORS 468B.205

Hist.:

340-051-0010

Definitions

Unless the context or OAR Chapter 603, Division 074 requires otherwise, as used in these rules:

- (1) "Department" means the Oregon Department of Environmental Quality or the Oregon Department of Agriculture.
- (2) "Confined Animal Feeding Operation" means:
 - (a) ~~The concentrated confined feeding or holding of animals or poultry, including, but not limited to horse, cattle, sheep, or swine feeding areas, dairy confinement areas, slaughterhouse or shipping terminal holding pens, poultry and egg production facilities and fur farms;~~
 - (A) ~~In buildings or in pens or lots where the surface has been prepared with concrete, rock or fibrous material to support animals in wet weather; or which~~
 - (B) ~~That have wastewater treatment works; or~~
 - (C) ~~That discharge any wastes into waters of the state; or-~~
 - (b) An animal feeding operation that is subject to regulation as a concentrated animal feeding operation pursuant to 40 CFR §122.23.
- (3) "Person" means the state, any individual, public or private corporation, political subdivision, governmental agency, municipality, industry, copartnership, association, firm, trust, estate or any other legal entity whatsoever.
- (4) "Waste Control Facility" means all or any part of a system or systems used in connection with a confined feeding or holding operation for the:
 - (a) Control of drainage;
 - (b) Collection, retention, treatment, and disposal of liquid wastes or contaminated drainage waters; or
 - (c) Collection, handling, storage, treatment or processing and disposing of manure.
- (5) "Waters of the State" include lakes, bays, ponds, impounding reservoirs, springs, wells, rivers, streams, creeks, estuaries, marshes, inlet, canals, the Pacific Ocean within the territorial limits of the State of Oregon, and all other bodies of surface or underground waters, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters which do not combine or effect a junction with natural surface or underground waters) which are wholly or partially within or bordering the state or within its jurisdiction.

Stat. Auth.: ~~ORS 449~~ & ORS 468.020

Stats. Implemented: ORS 468.005, ORS 468B.005 & ORS 468B.205

Hist.: DEQ 34, f. 2-3-72, ef. 2-15-72; DEQ 21-1990, f. & cert. ef. 7-6-90

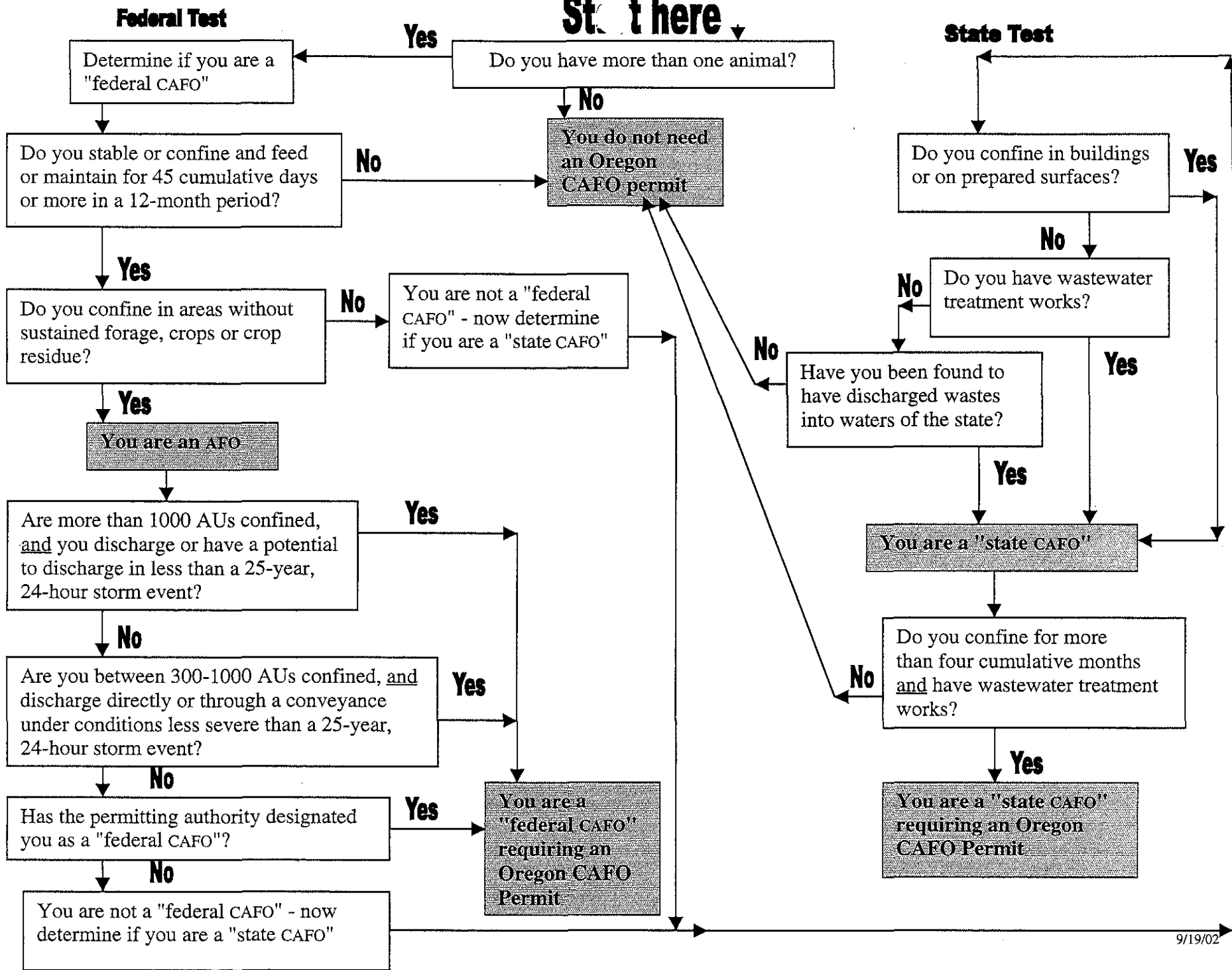
SCHEDULE
CAFO – PUBLIC INFORMATION MEETINGS FOR 2002

County	Scheduled Meeting Date and Location
Umatilla	September 24 (Pendleton) – Anapro Corp. promotional dinner
Union	October 7 (LaGrande) - Monthly OCA meeting – 7:00 pm USDA Service Center, 10507 McAlister Rd.
Tillamook	October 7 (Tillamook) – Farm Bureau meeting – 7:30 pm - OSU extension office
Morrow	October 8 (Heppner) - Anapro Corp - 6:30 pm - Senior Center on Main in Heppner
Grant	October 10 (John Day) – School District 3 conference room 7:00pm
Baker	October 12 (Baker City) – Annual Baker Co. OCA Mtg – 1:30 pm - Best Western Sunridge Inn, Campbell St. & 1-84
Marion	October 12 (Salem) – OSU/ODA Workshop – 9:30am - 3180 Center St.; Marion County Extension office
Wallowa	October 15 (Enterprise) – Monthly Cattleman’s mtg – 7:30 pm – Cloverleaf Hall, 600 NW 1st
Lane/Linn/Benton	October 16 (Springfield) – Monthly OCA – 6:30 am – Elmers Restaurant, 3350 Gateway
Harney	October 19 (Burns) – Monthly OCA Meeting - 1:00 pm – Harney County Courthouse
Malheur	October 22 (Jordan Valley) – Monthly OCA meeting – 1:00 pm (Mtn) - The Lions Den, Hwy 95
Malheur	October 23 (Vale) SWCD/ODA info meeting – 6:30 pm (Mtn) - Willow Creek School
Lake	October 24 (Lakeview) – OCA meeting – 6:00 pm – Elks Lodge across from safeway on 395
Coos	October 26 (Myrtle Point) – OCA meeting – 5:00 pm – County Fairgrounds
Crook	October 29 (Prineville) OSU/ODA info meeting – 7:00pm – Prineville Library
Jefferson	October 30 (Madras) OSU/ODA info meeting – 6:00pm – County Fairgrounds

BOLD – Jamie Bansen/Wym Matthews/Ron Edwards conducting meeting
 All others Eric Moeggenberg conducting meeting

Hearings:
11/7 Redmond hearing (Eagle Crest) 9:00 am – 11:00 am
11/13 Tillamook hearing (Extension Office meeting room) – 7:00 pm
11/14 Salem hearing (ODA basement) 1:00 PM

Start here



What type of facility is it?

**State of Oregon
Department of Agriculture
and
Department of Environmental Quality**

**Rulemaking Hearing Notice
and
Request for Comments**

Need for Rules: The 2001 Oregon legislature, through HB 2156 (2001 Oregon Laws, Chapter 248), directed ODA to seek approval from the federal Environmental Protection Agency (EPA) to transfer the CAFO portion of the NPDES permitting program from DEQ to ODA. As DEQ does not have an NPDES CAFO permit already in place and ODA has not yet received NPDES program delegation for CAFOs, development and adoption of such a permit requires rulemaking by both agencies. In addition, DEQ must amend its rules to reference ODA rules to facilitate this NPDES CAFO program transfer.

Public Hearings Time and Place: The hearings will begin with an informational session explaining the reason and process for adoption of these rules. The formal public comment period will immediately follow.

Date: November 7, 2002
Time: 9:00 a.m.

Location: Eagle Crest Resort, High Desert Room
1522 Cline Falls Highway
Redmond, Oregon 97556

Date: November 13, 2002
Time: 7:00 p.m.

Location: OSU Extension Meeting Room
2204 4th Street
Tillamook, Oregon 97141

Date: November 14, 2002
Time: 1:00 p.m.

Location: Oregon Department of Agriculture
Basement Hearings Room
635 Capitol St. NE
Salem, Or 97301

The proposals:

For the Oregon Department of Agriculture (ODA), this proposal would:

- Adopt OAR 603-074-0012 to clarify that permits for CAFOs will be issued under the applicable provisions of OAR 340-045.
- Adopt OAR 603-074-0014 to issue an NPDES general permit for CAFOs. This general permit was developed jointly with the Department of Environmental Quality (DEQ).
- Adopt OAR 603-074-0018 to clarify design, construction, operation, maintenance, and plan review requirements for CAFO waste control facilities and operations.
- Amend OAR 340-074-0020 to clarify fee requirements.

For DEQ, this proposal would:

- Amend OAR 340-045-0033 to jointly issue the general permit with ODA.
- Adopt OAR 340-051-0007 to clarify that ODA has authority to implement OAR 340-051, and clarify design, construction, operation, maintenance, and plan review requirements for CAFO waste control facilities and operations so they are consistent with OAR 603-074-0018.
- Amend OAR 340-051-0010 to revise definitions so they are consistent with definitions in OAR 603-074-0010(3).

The Review Process: Interested persons may present written or oral comments at the hearings. Written comments received by the department by 5:00 p.m. on November 15, 2002, also will be considered. Comments should be sent to ODA, attn: Lynda Horst, 635 Capitol Street NE, Salem, Oregon 97301-2532, or to DEQ, attn: Ranei Nomura, 811 SW 6th Ave., Portland, Oregon 97204. ODA and DEQ will review and evaluate their respective rulemaking proposals in light of all information received during the comment period. Following the review, the DEQ rules may be presented to the EQC and the ODA rules to the Director as originally proposed or with modifications made in response to public comments received.

Legal Basis for the Proposed Action: ODA has statutory authority to address these proposals under ORS 468B.050, 468B.217, 561.190, and 561.191, and Oregon Laws 2001, Chapter 248. DEQ has the statutory authority to address these rule revisions under ORS 468.020, 468B.020, 468B.035, and 468B.200 through 468B.230. These rules implement ORS 468.005, 468.065, 468B.005, 468B.015, 468B.035, 468B.050, 468B.200 to 468B.230, 561.191, and Oregon Laws 2001, Chapter 248.

For More Information: For copies of the proposed rules, the enabling legislation, related documents, or further information on the public hearings, contact Cara Walker or Lynda Horst at the Oregon Department of Agriculture, (503) 986-4700.

Notes: ODA and DEQ comply with the Americans With Disabilities Act (ADA). The ADA prohibits discrimination against persons with disabilities. If you are interested and need special accommodations to participate in this hearing, please call the Natural Resources Division, (503) 986-4700, at least 72 hours prior to the meeting. For the hearing impaired, phone TTY (503) 986-4762.

Draft CAFO rules for permit adoption
October 1, 2002

(Strikeout indicates deleted text; underline indicates inserted text)

603-074-0012

Permit Procedures

Except as provided in OAR 603-074-0020 below, permits for Confined Animal Feeding Operations will be issued under the applicable provisions of OAR chapter 340, division 45. For purposes of this rule division, however, the term department in OAR 340-045-0010(2) means the Oregon Department of Agriculture and the term director in OAR 340-045-0010(3) means the Director of the Oregon Department of Agriculture unless a different meaning is clearly indicated by context.

Stat. Auth.: ORS 468B.050; 468B.217; ORS 561.190; ORS 561.191 Or. Laws 2001, chapter 248, Section 1(2).
Stats. Implemented: ORS 468B.050; 468B.200 to 468B.230; ORS 561.191, Or. Laws 2001, chapter 248.

603-074-0014

Adoption of General Permit

- (1) The following general permit is adopted by reference in this rule and available for review at the department:
 - (a) NPDES number 01 (Confined Animal Feeding Operations)(issued on February , 2003).
 - (b) A complete copy of the general permit is available for inspection at the Oregon Department of Agriculture, Natural Resources Division, 635 Capitol St. NE, Salem, Oregon.
- (2) Any person currently registered under the DEQ General Permit number 0800 [OAR 340-045-0033(10)(e)] may continue to be covered by that permit until requested by the department to apply for coverage under the Oregon CAFO General Permit number 01 or until January 31, 2006, whichever occurs first.
- (3) Any person issued an individual WPCF permit for a CAFO must apply for an individual NPDES permit or coverage under the Oregon CAFO General Permit at least 180 days prior to expiration of its individual WPCF permit. The department may grant permission in writing for a later date provided it is not later than the expiration date of the existing permit. The individual WPCF permit will remain in effect until final action has been taken on the application.

Stat. Auth.: ORS 468B.050; 468B.217; ORS 561.190; ORS 561.191; Or. Laws 2001, chapter 248, Section 1(2).
Stats. Implemented: ORS 468B.050; 468B.200 to 468B.230; ORS 561.191, Or. Laws 2001, chapter 248.

603-074-0015

Complaint Evaluation

[renumbered to OAR 603-074-0016]

603-074-0018

Design and Construction Review; Best Practical Waste Control Technology

- (1) Except as provided in subsections (3) to (7) below, waste control facilities and operations permitted under OAR 603-074-0012 are subject to provisions of OAR chapter 340, division 51 relating to the use of best practicable waste control technology and review and approval of facility location, design, construction, operation and maintenance.
- (2) For purposes of this rule division, however, the term department in OAR 340-051-0010(1) means the Oregon Department of Agriculture, and the term confined animal feeding operation in OAR 340-051-0010(2) has the meaning set out in OAR 603-074-0010(3) unless a different meaning is clearly indicated by context.

Draft CAFO rules for permit adoption
October 1, 2002

- (3) The department will accept design and post-construction certification by a licensed engineer for earthen impoundments, conveyances, animal holding areas and earthen-floored buildings and animal travel lanes between buildings in the production area.
- (4) The department will accept design and post-construction certification by a licensed engineer for primary storage structures for liquid and solid manure. For purpose of this rule section a primary storage structure is any storage structure intended to hold an operations waste for a period of five or more days.
- (5) Certification under sections (3) and (4) must be submitted on forms approved by the department. The licensed engineer must certify that the facilities were designed and constructed in compliance with the guidelines in OAR 340-051-0055 to 340-051-0070.
- (6) Certification under sections (3) or (4) will not be allowed for waste control facilities using experimental or unproven treatment methods or technology. Certification under sections (3) or (4) may be disallowed for any other facility if the department determines that the nature of the facility or operation or the location of the facility or operation is such that department review is needed to ensure protection of waters of the state.
- (7) Construction or modification of waste control facilities other than impoundments, conveyances, holding areas, buildings and animal travel lanes within the production area, and primary storage structures are not subject to design or post-construction review and approval requirements unless the department determines that the nature of the facility is such that review is needed to ensure protection of waters of the state.

Stat. Auth.: ORS 468B.050; ORS 468B.217; ORS 561.190; ORS 561.191; Or. Laws 2001, chapter 248 Section 1(2).
Stats. Implemented: ORS 468B.050; ORS 468B.055; ORS 468B.200 to 468B.230; [ORS 561.191] Or. Laws 2001, chapter 248.

603-074-0020

Fees: Application Eligibility and Requirements

(1) A filing fee of \$50 shall accompany any application for registration to or issuance, renewal, modification or transfer of an NPDES CAFO permit. This fee is in addition to any application processing fee or annual compliance determination fee which might be imposed as provided in OAR chapter 340, division 45.

~~(2)~~(2) In addition to those fees provided for in OAR chapter 340, division 45, All persons operating a confined animal feeding operation as defined in OAR 603-074-0010(3) with wastewater treatment works and with animals contained in a confined area for four months or more shall submit an annual registration fee of \$25 to the department.

(3) Except for animal feeding operations subject to regulation under 33 USC/1342, a fee will not be assessed to nor a permit required of those operations that confine for four months or less duration or that do not have waste water control facilities.

~~(2)~~(4) The annual registration fee shall be paid to the department and be effective with the state's fiscal year July 1 - June 30 and shall be paid no later than July 31. The fee shall be paid on an annual basis by those persons described in section (1) of this rule.

~~(3)~~(5) All fees shall be paid to the department and are non-refundable and non-transferable.

Stat. Auth.: ORS 561.190 & ORS 561.191

Stats. Implemented: OL Ch. 248, HB 2156

Hist.: AD 12-1990, f. & cert. ef. 6-4-90; AD 8-1994, f. & cert. ef. 7-26-94; DOA 15-2001(Temp), f. & cert. ef. 7-2-01 thru 12-28-01; DOA 28-2001, f. & cert. ef. 12-31-01; Or. Laws 2001, chapter 248.

Permit Number: _____
Expiration Date: _____
Issuance Date: _____
Effective Date: _____

OREGON CONFINED ANIMAL FEEDING OPERATION
GENERAL PERMIT NUMBER 01

State of Oregon
Department of Agriculture
Natural Resources Division
and
Department of Environmental Quality
Water Quality Division

In compliance with the provisions of Oregon Revised Statutes (ORS) Chapter 468B,
Oregon Administrative Rules (OAR) Chapter 603, Division 74,
The Federal Water Pollution Control Act as amended
(The Clean Water Act)
Title 33 United States Code, Section 1251 et seq.,
and
The National Pollutant Discharge Elimination System
(NPDES)

Until this permit expires, is modified or revoked, permittees who have properly obtained coverage under this permit are authorized to discharge to waters of the state in accordance with the special and general conditions that follow.

Debbie Gorham, Administrator
Natural Resources Division
Oregon Department of Agriculture

Michael T. Llewelyn, Administrator
Water Quality Division
Oregon Department of Environmental Quality

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SPECIAL CONDITIONS**S1. PERMIT COVERAGE****A. Permit Required**

1. Any person who engages in or conducts an animal feeding operation that meets the definition of a confined animal feeding operation in OAR (Oregon Administrative Rules) 603-074-0010(3) is required to obtain coverage under this general permit. Any person requiring coverage under this permit by meeting the definition of a Confined Animal Feeding Operation (CAFO) in OAR 603-074-0010(3) that has not obtained coverage under this general or under an individual permit will be deemed to be in violation of Oregon Revised Statutes (ORS) Chapter 468B.050 and ORS 468B.215;
 - (a) except for animal feeding operations subject to regulation under 33 USC § 1342, coverage under this permit shall not be required of those operations that confine for four months or less duration or that do not have wastewater control facilities.
2. Any person operating an animal feeding operation that may, under certain circumstances or in the future, meet the definition of a confined animal feeding operation may elect to be covered under this permit. Any person registering under the permit as allowed by this provision is liable for compliance with all terms and conditions of the permit to the same extent and in the same manner as persons registering under A.1.

B. General Permit Coverage

1. Schedule for Application to Register to this general permit:
 - (a) CAFOs currently under WPCF permit
Owners or operators of CAFOs covered by this permit that are currently under the existing WPCF permit must submit an Application to Register within 90 days of notification by the department that permit coverage is required.
 - (b) Other existing CAFOs
Owners or operators of CAFOs covered by this permit that are not currently under the existing WPCF permit must submit an Application to Register within 90 days of notification by the department that permit coverage is required.
 - (c) New CAFOs
Owners or operators of new CAFOs covered by this permit must submit an Application to Register at least 180 days before beginning operations.
2. Any person requiring a permit (as described in S1.A. above), but not wishing to be covered or limited by this general permit may apply for an Oregon CAFO Individual Permit in accordance with the application procedures in Oregon Administrative Rules, chapter 340, division 45.
3. This general permit does not cover activities or discharges presently covered by an individual National Pollutant Discharge Elimination System (NPDES) or Water Pollution Control Facilities (WPCF) permit until the individual permit has expired or been canceled. Any person conducting an activity covered by an individual permit which is subject to coverage under this general permit may request cancellation of

the individual permit and apply for coverage under this general permit.

4. Coverage under this general permit is evidenced by a notice of registration to be sent to applicant upon approval of coverage by ODA once a complete ATR has been received and evaluated by ODA. The notice of registration is entitled *General Permit Summary* and will include the operator's name, facility name, business and mailing addresses, phone numbers and e-mail address, if any. The notice will include the effective date of the registration, the maximum number of animals allowed at the facility, and will be signed by the Administrator of the Natural Resources Division of ODA.
5. Coverage under this general permit will be cancelled as to the particular permittee upon the issuance of an individual permit to that permittee.
6. Except for any toxic effluent standards and prohibitions imposed under section 307 of the federal Clean Water Act, compliance with this permit during its term constitutes compliance, for purposes of enforcement, with state water quality laws and with most sections of the Clean Water Act, as provided in 40 CFR §122.5.

Compliance with the terms and conditions of this permit constitutes compliance with most of the state and federal water pollution control requirements applicable to confined feeding operations. Accordingly, if a permit registrant complies with the permit, then ODA, EPA, DEQ or third parties ordinarily may not bring an enforcement action against the permit registrant.

The specific effect of permit compliance on enforcement authority is set out in OAR 340-045-0080. There are some important exceptions to this rule, however, including violations of standards relating to certain toxic pollutants regulated under Section 307 of the CWA and groundwater protections requirements established under OAR 340, Division 040.

Accordingly, if a permit registrant complies with the permit, then ODA, EPA, DEQ or third parties ordinarily may not bring an enforcement action against the permit registrant.

7. This permit applies only to any discharge from the process wastewater, collection, confinement, storage and handling areas of the permittee, including transfer facilities and land application activities under the control of the permittee and that have been clearly identified in the permit application process.

C. Individual Permit Coverage

When appropriate, as described in OAR chapter 340 division 45, the director may require any person to apply for and obtain an individual permit pursuant to OAR chapter 340, division 45. In cases where the director requires any person to apply for an individual permit the person will be notified in writing that another permit is required. This notice will include a statement of why another permit is being required, an application form, and a time limit for submitting the application, in accordance with the applicable administrative rules. If a person properly applies for an individual permit and pays the appropriate fees, coverage under this general permit will remain effective until the individual permit is issued.

D. Definitions

1. "Animal feeding operation" has the meaning given in 40 CFR §122.23(b)(1).
2. "Animal waste management plan" has the meaning given in OAR 340-051-0050.
3. "Bypass" means the intentional diversion of waste streams from any portion of the treatment facility. The requirements of 40 CFR §122.41(n) apply.
4. "Catastrophic event" means a tornado, hurricane, 25 year flood, 25-year 24-hour rainfall event or other extreme condition that would cause an overflow from a required waste structure.
5. "Chronic event" means a series of wet weather conditions that precludes the proper operation of a waste management system that is designed for the current population of animals at the CAFO.
6. "Confined animal feeding operation (CAFO)" has the meaning given in OAR 603-074-0010(3).
7. "Direct animal contact" means any situation where animals in the production area have free access and are allowed to loiter or drop waste in surface waters.
8. "Director" means the Director of the State of Oregon Department of Agriculture or an authorized representative.
9. "Discharge" means:
 - (a) A discharge of pollutants into waters of the state through a manmade ditch, flushing system or similar manmade conveyance, or
 - (b) The application of process wastes to land not consistent with the times and/or rates specified in the waste management plan, in a manner that is likely to result in contamination of waters of the state.
10. "Groundwater" and "Underground water" means water in a saturated zone or stratum beneath the surface of land or below a surface water body.
11. "Order" has the meaning given in ORS 183.310.
12. "Person" has the meaning given in OAR 603-074-0010(11).
13. "Pollution" or "water pollution" has the meaning given in ORS 468.005(3) and the meaning given in 33 USC 1362(19).
14. "Production area" means confinement, storage, and handling areas where crops, vegetation forage growth, or post-harvest residues are not sustained in the normal growing season over any portion of the lot or facility. It does not include land application areas, cropland, or rangeland.
15. "Process wastes" or "process wastewater" means
 - (a) any process generated wastewater and any precipitation (rain or snow) that comes into contact with any manure, litter or bedding, or any other raw material or intermediate or final material or product used in or resulting from the production of animals or poultry or direct products (e.g. milk, eggs).

- (b) The term "process generated wastewater" means water directly or indirectly used in an animal operation for any or all of the following: spillage or overflow from animal or poultry watering systems; washing, cleaning or flushing pens, barns, manure pits or other feedlot facilities; direct contact swimming, washing or spray cooling of animals; and dust control.
16. "Rule" has the same meaning as given in ORS 183.310.
17. "Significant contributor of pollution" means:
- (a) Any animal feeding operation, regardless of size, that has been designated as a significant contributor pursuant to 40 CFR §122.23(3)(c) or that meets the definition in OAR 603-074-0010(3) or 40 CFR §122.23(b)(1); or,
 - (b) Any animal feeding operation directly discharging pollutants that causes or contributes to a violation of state Surface Water Quality Standards or state Groundwater Quality Standards.
18. "Upset" means an exceptional incident in which there is an unintentional and temporary noncompliance with technology based effluent limitations because of factors beyond the reasonable control of the operator. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, and lack of preventative maintenance or careless or improper operation. The requirements of 40 CFR §122.41(n) apply.
19. "Waste Management Plan" means a written plan containing the minimum elements for CAFO waste management planning required under OAR chapter 340, division 51, and prepared in accordance with the Natural Resources Conservation Service (NRCS) conservation practice standard guidance 590-1 for Oregon dated May 2001 entitled *Nutrient Management*.
20. "Wastes" has the meaning found in ORS 468B.005(7).
21. "Waste storage facilities" means the physical system used for the isolation and retention of process wastes on the confined animal feeding operation until their ultimate utilization.
22. "Wastewater disposal system," "wastewater treatment works," or "waste control facility" means all or any part of a system or systems used in connection with a confined animal feeding operation for the:
- (a) control of drainage;
 - (b) collection, retention, treatment, and disposal of liquid wastes or contaminated waters; or
 - (c) collection, handling, storage, treatment or processing and disposing of manure.
23. "Water" or "the waters of the state" has the meaning given in ORS 468B.005(8).
24. "25-year, 24-hour storm event" means an event with a probable recurrence interval of once in twenty-five years as defined by the National Weather Service in Technical Paper Number 40, "Rainfall Frequency Atlas of the United States", May 1961, or equivalent regional or state rainfall probability information developed therefrom.

S2. EFFLUENT LIMITATIONS

Discharge of process wastes to surface or groundwaters of the state is prohibited. Types of discharge that are prohibited include but are not limited to: contaminated runoff from confinement or waste accumulation areas; overflow or discharges from waste storage facilities; discharges due to improper land application activities from surface drainages, field tile outlets, or seepage below the root zone; discharges due to equipment failure; leakage or seepage from facilities in the production area in excess of approved designs.

Upon registration to this permit, the permittee is authorized to discharge only in accordance with the following conditions:

A. Production Area Effluent Limitations

1. Seepage to groundwater from waste storage or animal confinement facilities must not exceed design rates as approved by ODA nor violate State Groundwater Quality Protection Standards.
2. Discharges to surface waters of the state are prohibited, except where rainfall events, either chronic or catastrophic, cause an overflow of process wastewater from a facility designed, constructed and operated to contain all process generated wastewaters plus the runoff from a 25-year, 24-hour rainfall event for the location of the facility.
3. Discharges to surface waters due to upset or bypass are authorized only in accordance with applicable requirements in 40 CFR §122.41(m) and (n).
4. All authorized discharges from the production area must, where practicable, be properly land applied or otherwise handled in a way that minimizes impacts on surface or groundwaters of the state.

B. Land Application Effluent Limitations

The permittee must apply process wastes to lands as specified in a waste management plan that has been approved by the department. Discharges to groundwater due to seepage below the root zone of the crop or by other means must not violate State Groundwater Quality Protection Standards. The permittee must land apply wastes in accordance with proper agricultural practices and the waste management plan. Waste applications must not exceed the capacity of the soil and crops to assimilate nutrients and minimize water pollution, must be quantifiable (based on nutrient testing of wastes, soils, and crops), must be based on the most limiting nutrient (nitrogen or phosphorus), and must account for all other nutrient sources. If discharge to surface water or groundwater sources will result, application to flooded, saturated, frozen or snow covered land is prohibited. Land application of wastes or wastewater during rainfall events that are expected to result in saturated soils or surface runoff is prohibited.

C. Direct Access by Animals to Surface Water in the Production Area

Direct animal contact with surface waters of the state in the production area of a CAFO is prohibited. "Direct contact" means any situation where animals in the production area have free access and are allowed to loiter or drop waste in surface waters. Direct contact with surface waters by animals on pasture or rangeland is not, by itself, a violation of this permit.

D. Storage Requirement

The permittee must provide adequate storage capacity for solid and liquid wastes at all times so that land application occurs only during periods when soil and weather conditions allow for

agronomic application and are in compliance with the Land Application Effluent Limitations in Condition S2.B of this permit.

S3. WASTE MANAGEMENT PLANS

A. Plan Submittal

Effective July 1, 2005, all permittees must have a current waste management plan for the facility. Plans must be submitted to ODA for review and approval following submission of the ATR for registration under this general permit.

1. New facilities applying for registration to this permit must submit a waste management plan for the facility with the ATR.
2. Existing facilities must submit a current waste management plan for the facility within 12 months of the date of submission of the ATR.

B. Plan Elements

Each plan must conform to the guidelines contained in OAR chapter 340, division 51, and be prepared in accordance with the NRCS conservation practice standard guidance 590-1 for Oregon dated May 2001 entitled *Nutrient Management* and must be adequate for the existing population of animals. Basic elements of a waste management plan include: inventory of animals, facilities, and lands; drawings and maps showing all facilities and lands; calculations of volumes and nutrient contents of generated wastes and wastewater; calculations of required storage capacity; guidelines for land application of wastes and wastewater; operation and maintenance guidelines; monitoring and record-keeping guidelines; and plans and specifications for proposed new or modified waste handling facilities.

C. Plan Compliance

Upon approval and certification by ODA and implementation by the permittee of a waste management plan, any permittee must, at all times, comply with the terms and conditions of that waste management plan. The application or discharge of any process wastewater more frequently than, at a concentration in excess of, or at times not specified in the waste management plan will constitute a violation of the terms and conditions of this permit.

S4. WASTE STORAGE FACILITIES

All new waste storage facilities constructed after the issuance date of this permit that are required to be addressed in a new or updated waste management plan must be sited, designed, constructed, operated and maintained consistent with the waste management plan developed under Condition S3.A of this permit. New and modified construction of waste facilities must be approved in advance and prior to construction by the department in conformance with ORS 468B.055, OAR chapter 340, division 51 and OAR chapter 603, division 74.

S5. MONITORING, REPORTING AND RECORD RETENTION REQUIREMENTS**A. Monitoring Requirements**

If a discharge to surface or groundwaters occurs that is not allowed by the Surface Water Effluent Limitation (Condition S2.A), the permittee must record the following information:

1. A description and cause of the discharge;
2. The period of discharge including exact dates, times and duration of discharge;
3. An estimate of discharge volume;
4. Name or location of receiving water; and
5. Corrective steps taken if appropriate, to reduce, eliminate or prevent reoccurrence of the discharge.

B. Reporting Requirements

1. If a discharge to surface or groundwaters occurs that is not allowed by the Surface Water Effluent Limitation (Condition S2.A) the permittee must notify ODA's Natural Resources Division within 24 hours of the discharge.

The permittee must submit a written report within five (5) days to ODA, Natural Resources Division. The information to be submitted is listed in the monitoring requirements (Condition S5.A.) of this permit.

2. The permittee must report to ODA, Natural Resources Division within 24 hours of becoming aware of any significant physical failure at any time of a waste structure required under this permit.

C. Retention of Records

All information required by this permit must be maintained at the facility and available to ODA for a period of three years.

D. Additional Monitoring

ODA may establish specific monitoring requirements in addition to those contained in this permit by administrative order.

S6. PREVENTION OF SYSTEM OVERLOADING

Animal herd size must not exceed the capacity of the waste storage facilities, nor the maximum number of animals assigned by ODA. The permittee must update its waste management plan consistent with Condition S3.A of this permit, update all system components in need of upgrading, and must provide a written copy of that updated waste management plan to ODA's regional office, and must receive written approval prior to increasing the number of animals over the maximum herd size identified in the existing waste nutrient management plan.

S7. CANCELLATION OF COVERAGE**A. Request for Cancellation**

Any permittee may request that coverage under this general permit be cancelled as to that permittee if:

1. Conditions or standards have changed so that the source or activity no longer qualifies for a general permit;
2. The facility no longer has animals on site and all waste storage facilities have been

decommissioned in accordance with NRCS conservation practice standard, code 360, entitled *Closure of Waste Impoundments*, dated February 2000, and

3. The permittee certifies that it will not commence operations at the same location without making a new application for registration under this general permit or applies for coverage under an individual permit and is granted coverage under this general or an individual permit by ODA.

B. Request in Writing

The request must be submitted to ODA's Natural Resources Division in writing.

C. Response to Request

ODA will respond to the request for cancellation by conducting a site inspection and a review of the permit file. A written determination either canceling coverage under the general permit or denying the request will be sent to the permittee.

GENERAL CONDITIONS

G1. Discharge Violations

All land application of wastes and other activities authorized by this permit must be consistent with the terms and conditions of this permit. The application or discharge of any process waste more frequently than, or at a concentration in excess of, that authorized by this permit will constitute a violation of the terms and conditions of this permit.

G2. Proper Operation and Maintenance

The permittee must at all times properly operate and maintain all facilities and systems used for process waste collection, storage and utilization.

G3. Maintaining Compliance if System Fails

The permittee, in order to maintain compliance with the permit, must control all applications and discharges upon reduction, loss or failure of the waste storage or utilization facilities until the facilities are restored or an alternative method of storage or utilization is provided. This requirement applies where the primary source of power is reduced, lost, or fails.

G4. Noncompliance Notification

- A. If for any reason, the permittee does not comply with, or will be unable to comply with, any of the requirements or conditions specified in the permit, the permittee must, at a minimum, provide ODA with the following information:
 1. A description of the nature and cause of noncompliance, including the quantity and quality of any unauthorized waste discharges;
 2. The period of noncompliance, including exact dates and times, and the anticipated time when the permittee will return to compliance; and
 3. The steps taken, or to be taken, to reduce, eliminate, and prevent recurrence of the noncompliance.
- B. In addition, the permittee must take immediate action to stop, contain, and clean up any unauthorized discharges and take all reasonable steps to minimize any adverse impacts to waters of the state and correct the problem. The permittee must notify ODA by telephone so that an investigation can be made to evaluate any resulting impacts and the corrective actions taken to determine if additional action should be taken.
- C. In the case of any discharge subject to any applicable toxic pollutant effluent standard under Section 307(a) of the Clean Water Act, or which could constitute a threat to

human health, welfare, or the environment, 40 CFR §122 requires that the information specified in conditions G4.A.1, G4.A.2, and G4.A.3 above, be provided not later than 24 hours from the time the permittee becomes aware of the circumstances. If this information is provided orally, a written submission covering these points must be provided within five days of the time the permittee becomes aware of the circumstances, unless the department waives or extends this requirement on a case-by-case basis.

- D. Compliance with these requirements does not relieve the permittee from responsibility to maintain continuous compliance with the conditions of this permit or resulting liability for failure to comply.

G5. Right of Inspection

The permittee must allow an authorized representative of ODA, upon the presentation of credentials and such other documents as may be required by law:

- A. To enter upon the property where a potential or actual discharge is located;
- B. To have access to and copy at reasonable times any records that must be kept under the terms of the permit;
- C. To inspect at reasonable times any monitoring equipment or method of monitoring required in the permit;
- D. To inspect at reasonable times any collection, treatment, pollution management, or application facilities; and
- E. To sample any waters of the state or discharge of pollutants.

G6. Facility Modifications

The permittee must develop and implement an updated waste management plan pursuant to Condition S6 of this permit when facility expansions, production increases, or process modifications will (1) result in new or increased generation of animal wastes beyond the scope of the current waste management plan, or (2) violates the terms and conditions of this permit.

G7. Permit Registration Modified or Revoked

- A. After notice, registration under this general permit may be modified or revoked as it applies to any person for cause as follows:
 - 1. Violation of any terms or conditions of the permit,
 - 2. Failure of the permittee to disclose fully all relevant facts, or misrepresentations of any relevant facts by the permittee during the permit issuance process and during the life of the permit;
 - 3. Failure to pay permit fees when due;
 - 4. Information indicating that the permitted operation poses a threat to human health or welfare;
 - 5. A change in ownership or control of the operation, or
 - 6. Other causes listed in 40 CFR §122.62 and 122.63.
- B. Modification or revocation of coverage under this general permit as it applies to any person may be initiated by ODA.
- C. Issuance of coverage under an individual permit may be initiated by ODA in accordance with Condition S1.C.

G8. Reporting a Cause for Revocation

A permittee who knows or has reason to believe that any activity has occurred or will occur that would constitute cause for revocation of coverage under this general permit or issuance

under Condition S1.C or 40 CFR §122.62 must report such information to ODA so that a decision can be made on whether action to modify or revoke registration under the permit or reissuance under an individual permit will be required. The department may then require submission of a new application. Submission of such application does not relieve the owner or operator of the duty to comply with the existing permit until registration hereunder is terminated.

G9. Revocation for Non-Payment of Fees

ODA may revoke registration under this general permit if the permit fees established under Oregon Administrative Rules are not paid when due.

G10. Other Requirements of 40 CFR

All other requirements of 40 CFR §122.41 and 122.42 are incorporated in this permit by reference.

G11. Compliance With Other Laws and Statutes

Nothing in the permit will be construed as excusing the permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations.

G12. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and have the permit renewed. The application shall be submitted at least 180 days before the expiration date of this permit.

The director may grant permission to submit an application less than 180 days in advance but no later than the permit expiration date.

G13. Change of Ownership or Control

The permittee must notify ODA in writing thirty (30) days prior to a change in facility ownership or control.

**Confined Animal Feeding Operation (CAFO)
Application to Register to the Oregon CAFO General Permit**

Submission of this Application to Register with a completed Certification B constitutes notice that the party(ies) identified in Section 1 of this form intends to be authorized by the Oregon CAFO General Permit for wastewater discharges associated with a confined animal feeding operation in Oregon. Becoming a permittee obligates such CAFO to comply with the terms and conditions of the permit. ALL NECESSARY INFORMATION MUST BE PROVIDED ON THIS FORM.

I. Contact Information

A. Operator

Name: _____
Address: _____
City, State, ZIP Code: _____
Phone Number(s): _____
Fax Number: _____
Email Address: _____

B. Owner (if different from Operator)

Name: _____
Address: _____
City, State, ZIP Code: _____
Phone Number(s): _____
Fax Number: _____
Email Address: _____

Status of Owner/Operator: _____ (P = Private; M = Public other than federal or state; F = Federal; S = State)

Does a corporate entity either direct the activity of persons working at the facility identified in Section II of the ATR through a contract or direct supervision or participate in on-site activities?

_____ No _____ Yes – Name of corporate entity _____

Does a corporate entity own the animals confined at the facility identified in Section II?

_____ No _____ Yes – Name of corporate entity _____

Does a corporate entity specify how the animals confined at the facility identified in Section II are grown, fed, or medicated?

_____ No _____ Yes – Name of corporate entity _____

II. Facility Information

Name: _____
Address: _____
City, State, ZIP Code: _____
County: _____
Latitude: _____
Longitude: _____
Receiving Stream(s): _____

Is this facility located within a 303(d)- or Oregon priority-listed watershed or area (e.g., groundwater management area, SB1010 planning area, coastal zone management area)?

_____ No _____ Yes – Name of watershed or area _____

III. Description of Operation

Number of Animals Managed: Give the maximum number of each type of animal (e.g., adult cows, heifers, calves) in open confinement or housed under roof (either partially or totally) that are held at this facility in any 12 month period. Attach additional sheets if necessary.

Animal Type	Number of Animals
_____	_____
_____	_____
_____	_____

Does this facility include a retention (impoundment) structure(s) designed to store process wastewater and runoff flow from a 25-year, 24-hour storm event? _____ No _____ Yes
How many? _____

Area Available for Land Application: _____ acres

Certifications

Certification A: Waste Management Plan

I understand that the permit requires the preparation of a waste management plan for the facility described in this ATR. I agree to prepare and implement a waste management plan in accordance with the requirements and timelines specified in the permit.

_____	_____	_____
Signature	Date	Print Name

Certification B: True, Accurate, and Complete Information

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage this system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

_____	_____	_____
Signature	Date	Print Name

_____	_____	_____
Co-Permittee Signature	Date	Print Name

Fees and Submission

Send this completed ATR and \$75 fees (\$50 registration fee + \$25 annual compliance determination fee) to: Natural Resources Division, Oregon Department of Agriculture, 635 Capitol Street NE, Salem, Oregon 97301-2532. If you have questions, telephone the department at 503-986-4700.

Instructions – Confined Animal Feeding Operation (CAFO) Application to Register (ATR) to be Covered Under the Oregon CAFO General Permit

Who Must Fill Out An Application to Register (ATR) Form

Federal law 40 CFR Part 122 and Oregon law ORS 468B.050 prohibit the discharge of pollutants to waters of the state without a permit. Operators of a CAFO must obtain and submit a ATR form to be covered under the Oregon CAFO General Permit or to certify that the facility does not require permit coverage (the facility does not discharge). To obtain additional information regarding the Oregon CAFO General Permit, or to determine whether you require permit coverage, contact the Oregon Department of Agriculture at 503-986-4700.

Where To File the ATR Form

ATRs must be sent to the following address:

Natural Resources Division
Oregon Department of Agriculture
635 Capitol Street NE
Salem, Oregon 97301-2532

Completing the Form

ATR forms must be completed in type or print in the appropriate marked areas. If you have any questions about filling out this form, contact the Oregon Department of Agriculture at 503-986-4700.

Section I. Contact Information

Provide the legal name of the person, firm, organization, or any other entity which controls the operation of the facility in question. You must also provide the name of the facility owner, if different from that of the operator. Do not use a colloquial name. Enter the complete address and telephone number of the operator and owner. Enter the appropriate letter to indicate the legal status of the operator of the facility. If the owner or operator of the facility is a contract grower, please answer the questions regarding the nature of this contract and the legal name of the entity with whom the contract is held.

Section II. Facility Information

Provide the complete address for the facility, including street address, city, state, and ZIP code. Do not provide a P.O. Box number as the street address. Provide the phone and fax numbers for the facility. Indicate the county and the latitude and longitude to the nearest 15 seconds, or the quarter, section, township, and range (to the nearest quarter section) of the approximate center of the site.

Enter a check in the appropriate box to indicate whether the site is located within a 303(d)- or Oregon priority-listed watershed. These terms refer to impaired watersheds designated by the U.S. or Oregon governments. If yes, enter the complete name of the listed watershed. To determine if the facility is located in a 303(d)- or Oregon priority-listed watershed, contact the Oregon Department of Agriculture at 503-986-4700.

Section III. Description of Operation

Provide information regarding the number of each type of animal managed in open confinement and/or housed under roof (partially or totally) in any 12 month period. An additional sheet may be attached if the information does not fit in the provided space.

Enter a check in the appropriate box regarding the facility's use of a wastewater and runoff flow retention (impoundment) structure. In addition, provide the total acreage of the area available for land application.

Certifications

Federal statutes provide severe penalties for submitting false information on this ATR application form. Federal regulations require that this form be signed as follows:

For a corporation: by responsible corporate officer, which means: (i) president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions;

For a partnership or sole proprietorship: by a general partner or the proprietor.

CAFO owners/operators who intend to obtain coverage under the Oregon CAFO General Permit should complete Certifications A and B. This includes CAFO facilities that discharge or have the potential to discharge.

**The Oregon Confined Animal Feeding Operation (CAFO)
General Permit Summary**

The Oregon CAFO General Permit was issued by the Oregon Department of Agriculture and Oregon Department of Environmental Quality on **[issuance date]** in conformance with federal and state water quality laws. The permit expires on **[expiration date]**. Your **[type of operation]** CAFO was registered to the permit on **[registration date]** as follows:

	Operator	Legal owner, if different
Name		
Business Name		
Mailing Address		
Facility Address		
Phone 1		
Phone 2		
Phone 3		
Email address		

The Oregon CAFO General Permit is on file with the department, and a copy will be provided to you upon request. Your operation is registered under that permit, based on information you provided. This summary of the permit describes its requirements and the protections it affords you. You will be assessed an annual compliance determination fee to maintain your registration. If you have questions, call your regional livestock water quality specialist, **[inspector name]**, at **[inspector phone number]**. You will find additional CAFO program information on the internet at [\[http://oda.state.or.us/nrd/cafo/index.html\]](http://oda.state.or.us/nrd/cafo/index.html)

Maximum Number of Animals: The maximum number of animals that may be held at this CAFO is **[maximum animal number]** based on the following population: _____

You may not exceed this number by more than 10% or 25 animals, whichever is greater, without first providing the department a revised waste management plan and receiving a new permit registration for a greater number.

General Permit Conditions: You must be in compliance with all terms and conditions of the permit (not simply this summary of the permit) at all times. You must contain, treat, store and dispose of wastes and wastewater so that no discharges to surface water or groundwater occurs, except as described below. You must ensure that animals in the production area do not have direct access to surface water sources. You must properly operate and maintain all waste handling facilities.

Types Of Discharge That Are Prohibited: Contaminated runoff from confinement or waste accumulation areas; overflow or discharges from waste storage facilities; discharges due to improper land application activities from surface drainages, field tile outlets, or seepage below the root zone ; discharges due to equipment failure; leakage or seepage from facilities in the production area in excess of approved designs; etc.

When Discharge Is Allowed: If the facilities have been constructed and maintained to contain all wastes and wastewater in the production area and then discharge due to a 25-year, 24-hour storm event, such discharge is permitted. Discharge from the production area is allowed when due to chronic rainfall (a series of wet weather conditions that precludes the proper operation of a waste management system that is designed for the current population of animals at the CAFO). Discharge from the land application area due to storm runoff is permitted if the land is being managed in compliance with a waste management plan that has been approved by the department. All authorized discharges from the production area must

be properly land applied or otherwise handled in a way that minimizes impacts on surface water and groundwater sources.

Storage Requirement: You must provide adequate storage capacity for solid and liquid wastes at all times so that land application occurs only during periods when soil and weather conditions are suitable.

Testing & Record Keeping: Testing and record keeping of wastes, soils, crop yields, etc. must occur as described in an animal waste management plan approved by the department. Testing and record keeping of waste handling activities is not required on pastures or rangeland if such lands have not received wastes other than from grazing animals.

Land Application Rates & Timing: You must land apply wastes in accordance with proper agricultural practices and your waste management plan. Waste applications must not exceed the capacity of the soil and crops to assimilate nutrients and minimize water pollution, must be quantifiable (based on nutrient testing of wastes, soils, and crops), must be based on the most limiting nutrient (nitrogen or phosphorus), and must account for all other nutrient sources. If discharge to surface water or groundwater sources will result, application to flooded, saturated, frozen or snow covered land is prohibited. Land application during rainfall events that are expected to result in saturated soils or surface runoff is prohibited.

Duty To Report: If at any time you are unable to comply with any permit conditions, you have a duty to contact the department immediately so that an assessment of the situation can be made and any necessary remedial actions can be planned.

Decommissioning: Waste handling facilities cannot be abandoned, but must be properly decommissioned and residual wastes properly disposed. Permit coverage cannot be terminated until any decommissioning issues have been resolved.

Construction: All construction of waste facilities must be sited, designed, constructed, operated and maintained consistent with the waste management plan and must comply with the terms and conditions outlined in rule. New construction, expansion, or modification of waste handling facilities (particularly earth-surfaced lots, ditches, impoundments and other storage facilities with a capacity greater than five days) is allowed if ODA is provided with design and post-construction certification from a licensed engineer that such work was done in accordance with applicable rules. Experimental or unproven technologies must receive prior approval from the department. For all other modifications or new construction, no approval will be required. Certification forms are available from ODA.

Compliance Assurance (Effect Of A Permit): Compliance with the terms and conditions of this permit constitutes compliance with most of the state and federal water pollution control requirements applicable to confined feeding operations. Accordingly, if you comply with the permit, then ODA, EPA, DEQ or third parties ordinarily may not bring an enforcement action against you. The specific effect of permit compliance on enforcement authority is set out in OAR 340-045-0080. There are some important exceptions to this rule, however, including violations of standards relating to certain toxic pollutants regulated under Section 307 of the CWA and ground water protections requirements established under OAR 340, Division 040.

Debbie Gorham, Administrator
Natural Resources Division

DRAFT
October 1, 2002

**National Pollutant Discharge Elimination System
Fact Sheet and Permit Evaluation Report**

**Oregon Confined Animal Feeding Operations
General Permit**

Prepared by:

Lynda Horst, Oregon Department of Agriculture
Ranei Nomura, Oregon Department of Environmental Quality

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NPDES Fact Sheet and Permit Evaluation Report

Confined Animal Feeding Operations General Permit

1.0 Overview

1.1 Proposed permit action

The Oregon Department of Agriculture (ODA) and Department of Environmental Quality (DEQ) are proposing to issue a general National Pollutant Discharge Elimination System permit (NPDES) for confined animal feeding operations (CAFOs) in Oregon. CAFOs that meet the definition found in OAR 603-074-0010(3) and that confine for four months or more or have wastewater treatment works are required to register to a general permit or obtain an individual permit.

1.2 Description of activity needing permit

The activity associated with CAFOs is the confinement of animals, including poultry, for meat, milk, or egg production, or stabling, in pens or houses, where the animals are fed or maintained at the place of confinement. Generally animals are congregated in confined areas along with their feed, manure, and dead animals. Feed is brought to the animals rather than the animals grazing or otherwise seeking feed in pastures.

1.3 Description of pollutants

Process wastes, consisting primarily of animal manure, wash down water, contaminated storm water, and silage leachate are the primary sources of wastes being regulated under this permit.

Contamination of surface and ground waters can occur due to improper collection and storage of wastes, contamination of storm water runoff, undersized or leaking waste storage facilities, improper timing or over-application of wastes, or improper containment of silage effluent.

The most commonly recognized contaminants from CAFOs include biochemical oxygen demand (BOD), total suspended solids (TSS), organics, bacteria, and nutrients (nitrogen and phosphorous compounds).

Nutrients such as nitrogen and phosphorus can cause increased aquatic plant growth. Decomposition of algae and plants can decrease dissolved oxygen levels. In addition, the biochemical oxygen demand of organic waste depletes dissolved oxygen in water. Low dissolved oxygen levels in streams and lakes can cause fish kills in surface waters.

Inorganic forms of nitrogen are taken up by plants as nutrients when wastes are applied to cropland. Excessive or improper application of wastes and improper storage of wastes can cause runoff to surface water or leaching to ground water. High ammonia levels in surface water can be toxic to fish. High nitrate levels in drinking water can be toxic to humans.

Bacteria, viruses, and parasites found in animal waste can increase the risk of waterborne diseases. Fecal coliform bacteria are used as a biological indicator to determine water quality impact. In fresh water, high fecal coliform levels can cause a threat to public health, and restrict beneficial uses, such as

recreational, industrial, domestic, and agricultural use of the water. In marine water, high fecal coliform levels necessitate the closure of shellfish beds restricting recreational use and causing adverse economic impact to shellfish growers.

1.4 Why a permit is needed

The 2001 Oregon Legislature, through HB 2156, has directed ODA to seek delegated authority from the federal Environmental Protection Agency (EPA) to administer an NPDES program for CAFOs in accordance with the Clean Water Act (CWA). Previously, ODA administered a Water Pollution Control Facility (WPCF) permit issued by the Oregon Department of Environmental Quality (DEQ). Most Oregon CAFOs are registered to the WPCF permit. EPA has directed that CAFOs must be covered under an NPDES permit instead of the WPCF permit. This permit will replace the existing WPCF general CAFO permit.

1.5 Why a general permit is being issued

Section 301(a) of the CWA provides that discharge of pollutants is unlawful except in accordance with an NPDES permit. Although such permits have been issued to individual operators, EPA's regulations authorize the issuance of "general permits" to categories of discharges when the point sources responsible for the discharge are located within the same geographic area and warrant similar pollution control measures; involve the same or substantially similar types of operations; discharge the same type of waste; require the same effluent limitations or operating conditions; require the same or similar monitoring requirements, and in the opinion of the permitting authority are more appropriately controlled under a general permit than under individual permits.

The use of a general permit for regulating Oregon CAFOs is appropriate because the waste characteristics from different CAFOs are substantially similar, and the effluent limitations and requirements for all CAFOs covered by this general permit are identical. They are supported by effluent guidelines, best management practices and other requirements.

1.6 When an individual permit is necessary

Any CAFO required to obtain coverage under this general NPDES permit may request issuance of an individual permit. Most facilities will be sufficiently regulated under this general permit; however, the director may decide that a particular operation must be covered by an individual permit. Pursuant to Oregon Administrative Rule (OAR) 340-045-0033(9), situations where an individual permit would be required include:

- the discharge or activity is a significant contributor of pollution or creates other environmental problems;
- the operator is not in compliance with the terms and conditions of the general permit, submitted false information, or is in violation of any applicable law;
- a change occurs in the availability of demonstrated technology or practices for the control or abatement of pollutants being discharged;
- effluent limitation guidelines are promulgated for point sources covered by this general permit and the guidelines are not already in the permit; and
- circumstances have changed so that the discharge or activity is no longer appropriately controlled under a general permit, or either a temporary or permanent reduction or elimination of the authorized discharge is necessary.

2.0 Discussion of Proposed Permit

2.1 Outline of permit

The proposed NPDES permit is organized with a face page, a table of contents, and several pages of conditions. Special Conditions S1 through S7 are followed by General Conditions G1 through G13. The Special Conditions are unique and particular to this CAFO permit, whereas the General Conditions are required in all NPDES permits.

2.2 Who needs a permit?

Any person who engages in, operates or conducts an animal feeding operation that meets the definition of a **confined animal feeding operation** is required to obtain coverage under this general permit, with some exceptions. Facilities that are not otherwise subject to regulation under the CWA (33 USC § 1342) and that confine for four months or less or that do not have wastewater treatment works are not required to have permit coverage.

Also, other operations that may under certain circumstances or in the future meet the definition of a confined animal feeding operation may opt for coverage under this permit. If such operations elect coverage they become subject to all terms and conditions of the permit.

Facilities that are not subject to regulation under 33 USC § 1342 are those that do not meet the federal definition of a **concentrated animal feeding operation**. To be a **concentrated animal feeding operation**, one must first be an **animal feeding operation (AFO)**. Under federal law, AFO means a lot or facility (other than an aquatic animal production facility) where the following conditions are met:

- animals (other than aquatic animals) have been, are, or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12-month period, and
- crops, vegetation forage growth, or post-harvest residues are not sustained in the normal growing season over any portion of the lot or facility.

Concentrated animal feeding operation pursuant to 40 CFR §122.23 means an **animal feeding operation** that meets the criteria below, or which has been designated by the director of ODA as a significant contributor of pollution.

An **animal feeding operation** is a **concentrated animal feeding operation** for purposes of federal law if either of the following criteria is met:

- (a) More than the number of animals specified in any of the following categories are confined:
 - (1) 1,000 slaughter and feeder cattle,
 - (2) 700 mature dairy cattle (whether milked or dry cows),
 - (3) 2,500 swine each weighing over 25 kilograms (approximately 55 pounds)
 - (4) 500 horses,
 - (5) 10,000 sheep or lambs,
 - (6) 55,000 turkeys,
 - (7) 100,000 laying hens or broilers (if the facility has continuous overflow watering),
 - (8) 30,000 laying hen or broilers (if the facility has a liquid manure system),
 - (9) 5,000 ducks, or

- (10) 1,000 animal units; **or**
- (b) More than the following number and types of animals are confined:
 - (1) 300 slaughter or feeder cattle,
 - (2) 200 mature dairy cattle (whether milked or dry cows),
 - (3) 750 swine each weighing over 25 kilograms (approximately 55 pounds)
 - (4) 150 horses,
 - (5) 3,000 sheep or lambs,
 - (6) 16,500 turkeys,
 - (7) 30,000 laying hens or broilers (if the facility has continuous overflow watering),
 - (8) 9,000 laying hen or broilers (if the facility has a liquid manure system),
 - (9) 1,500 ducks, or
 - (10) 300 animal units;

and either one of the following conditions are met: pollutants are discharged into navigable waters through a manmade ditch, flushing system or other similar manmade device; or pollutants are discharged directly into waters of the United States which originate outside of and pass over, across, or through the facility or otherwise come into direct contact with the animals confined in the operation.

Provided, however, that no *animal feeding operation* is a *concentrated animal feeding operation* as defined above if such animal feeding operation discharges only in the event of a 25 year, 24-hour storm event.

The term *animal unit* means a unit of measurement for any animal feeding operation calculated by adding the following numbers: the number of slaughter and feeder cattle multiplied by 1.0, plus the number of mature dairy cattle multiplied by 1.4, plus the number of swine weighing over 25 kilograms multiplied by 0.4, plus the number of sheep multiplies by 0.1, plus the number of horses multiplied by 2.0.

The term *manmade* means constructed by man and used for the purpose of transporting wastes.

The state definition of *confined animal feeding operation (CAFO)* in OAR 603-074-0010(3) means

- (a) The concentrated confined feeding or holding of animals or poultry, including but not limited to horses, cattle, sheep, or swine feeding areas, dairy confinement areas, slaughterhouse or shipping terminal holding pens, poultry and egg production facilities and fur farms
 - (A) In buildings or in pens or lots where the surface has been prepared with concrete, rock or fibrous material to support animals in wet weather; or
 - (B) That have wastewater treatment works; or
 - (C) That discharge any wastes into waters of the state; or
- (b) An animal feeding operation that is subject to regulation as a concentrated animal feeding operation pursuant to 40 CFR §122.23.

The federal definition identifies CAFOs as *concentrated* animal feeding operations, whereas the state definition refers to *confined* animal feeding operations. Because the state definition includes those operations meeting the federal definition (OAR 603-074-0010(3)(b)), the term *confined animal feeding operation* is used in this permit to describe both federal and state defined CAFOs. This means that any *concentrated animal feeding operation* is a *confined animal feeding operation* under Oregon law.

Any *confined animal feeding operation* that confines for more than four months or has a prepared surface upon which the animals are confined and has wastewater treatment works is required to obtain coverage under the permit. Operations that confine for four months or less or that do not have wastewater treatment works are not required to obtain permit coverage. Oregon Revised Statutes (ORS) 468B.215(2). However, any *concentrated animal feeding operation*, that is, any operation meeting the federal definition, must obtain coverage under this permit regardless of the length of confinement or existence of wastewater treatment works. **Wastewater treatment works** are defined in the permit to mean:

all or any part of a system or systems used in connection with a confined animal feeding operation for the:

- (a) control of drainage;
- (b) collection, retention, treatment, and disposal of liquid wastes or contaminated waters; or
- (c) collection, handling, storage, treatment or processing and disposing of manure.

2.3 *Application to Register (ATR)*

All persons required to have coverage under this permit must submit an *application to register (ATR)* to the permit, on the following schedule:

CAFOs currently under WPCF permit:

Owners or operators of CAFOs covered by this permit must submit an Application to Register within 90 days of notification by the department that permit coverage is required.

Other existing CAFOs:

Owners or operators of CAFOs covered by this permit must submit an Application to Register within 90 days of the permit's effective date.

New CAFOs:

Owners or operators of new CAFOs covered by this permit must submit an Application to Register at least 180 days before beginning operations.

The ATR form will be provided by ODA. Applicants must provide the following information:

- (a) name and address of applicant and name of owner, if different
- (b) information about the corporate structure of the applicant and owner
- (c) facility information, including name, address, and latitude and longitude
- (d) identity of receiving streams
- (e) if the facility is located within a 303(d) or priority-listed watershed or area (e.g., groundwater management area, SB1010 planning area, coastal zone management area)
- (f) description of operation, including the number and type of animals, type and size of waste retention structures and systems and the number of acres available for land application of wastes

Applicants must certify that they do or will have a waste management plan prepared in accordance with permit terms and must certify that all of the information provided was properly gathered and evaluated by the applicant and is true, accurate and complete.

2.4 Notification of registration (GENERAL PERMIT SUMMARY)

Once an *application to register (ATR)* is received, evaluated, and approved by ODA, a Notice of Registration entitled *General Permit Summary* will be issued to the applicant. The *General Permit Summary* will contain the operation name, address, and contact information as provided to the department. It will include the effective date of registration and the maximum number of animals the operation is permitted to allow at the facility, based on the information provided in the ATR. The *General Permit Summary* also provides a summary of permit terms and conditions to be used as a quick reference guide for registered operators.

2.5 Discharge limitations and prohibitions

While an NPDES permit technically is a *discharge permit*, which means the permit allows discharge, this permit does not allow any discharge that is not specifically addressed in the permit. *Discharge* is defined in the permit to mean:

- a discharge of pollutants into waters of the state through a manmade ditch, flushing system or similar manmade conveyance, or
- the application of process wastes to land not consistent with the times and/or rates specified in the waste management plan in a manner that is likely to result in contamination of waters of the state.

Discharge of wastes to surface or ground waters is prohibited. Types of discharges that are prohibited include contaminated runoff from confinement areas or waste accumulation areas; overflow from waste storage facilities; discharges due to improper land application from surface drains, field tile outlets, or seepage below the root zone. Also prohibited are discharges due to equipment failure or leakage or seepage from the production area in excess of the approved design. Any storage or application of wastes that results in contamination of surface or ground water is expressly prohibited.

Direct animal contact with surface waters in the *production area* of the CAFO is prohibited. *Direct contact* means any situation where animals in the production area have free access and are allowed to loiter or drop waste in surface waters. Direct animal contact with surface waters by animals on pasture or rangeland is not, by itself, a violation of the permit. *Production area* is defined in the permit to mean:

confinement, storage, and handling areas where crops, vegetation forage growth, or post-harvest residues are not sustained in the normal growing season over any portion of the lot or facility. It does not include land application areas, cropland, or rangeland.

2.6 Production area effluent limitations

Seepage to ground water from waste storage or animal confinement areas must not exceed design rates of the structures as approved by ODA and must not violate state ground water quality protection standards found in OAR chapter 340, division 40.

Discharge to surface waters is prohibited except where rainfall events, either chronic or catastrophic, cause an overflow of process wastewater from a facility designed, constructed and operated to contain all process generated wastes for the facility. In the event such a discharge occurs, it must be properly land applied or otherwise handled in a way that minimizes impacts on surface and ground water.

2.7 Land application effluent limitations

The operator may only apply process wastes to lands as specified in a waste management plan that has

been approved by ODA. The operator must land apply wastes in accordance with proper agricultural practices and the waste management plan. Waste applications must not exceed the capacity of the soil and crops to assimilate nutrients and minimize water pollution, must be quantifiable (based on nutrient testing of wastes, soils, and crops), must be based on the most limiting nutrient (*e.g.*, nitrogen or phosphorus), and must account for all other nutrient sources.

If discharge to surface water or groundwater sources will result, application to flooded, saturated, frozen or snow covered land is prohibited. Land application of wastes or wastewater during rainfall events that are expected to result in saturated soils or surface runoff is prohibited.

The facility must have sufficient storage capacity for solid and liquid wastes at all times so that land application occurs only during periods when soil and weather conditions allow for agronomic application.

2.8 *Direct access by animals to surface water in the production area*

Generally, direct animal access, that is, any situation where the animals have free access and are allowed to loiter or drop waste in surface waters, is prohibited in the production area. The *production area* is defined in the permit as "confinement, storage, and handling areas where crops, vegetation forage growth, or post-harvest residues are not sustained in the normal growing season over any portion of the lot or facility." The production area does not include land application areas, cropland, or rangeland. Animals that graze on rangeland and come into contact with surface waters is not, by itself, a violation of the permit.

2.9 *Storage requirement*

The facility must have the capacity to store liquid and solid wastes at all times so that land application occurs only during periods when soil and weather conditions allow for agronomic application and are in compliance with the land application effluent limitations as described in section 2.7 above. While the permit does not require a minimum amount of storage for any facility, it is required that the facility be managed in such a way so that the storage available is sufficient to prevent overapplication, runoff or discharge.

2.10 *Waste management plans*

Everyone registered to the permit must have a waste management plan. New facilities must submit their plan with the ATR. Existing facilities must submit a current waste management plan within twelve months of submission of the ATR. Plans must be prepared and updated consistent with the animal population and waste volumes to prevent system overload.

Registrants must have the plans prepared in accordance with the guidelines contained in OAR chapter 340, division 51 and chapter 603, division 74. In general, plans must conform to the Natural Resource Conservation Service (NRCS) conservation practice standard guidance 590-1 for Oregon, dated May 2001, and entitled *Nutrient Management*. ODA will accept plans from NRCS certified Comprehensive Nutrient Management Plan (CNMP) writers and may approve such plans without review.

Basic elements of a plan include:

- an inventory of animals, facilities, and lands, including lands owned or leased and lands available for land application, whether on- or off-site;
- drawings and maps showing all facilities and lands;
- calculations of required and necessary storage capacity;

- calculations of volumes and nutrient contents of generated wastes and wastewater;
- guidelines for land application of wastes and wastewater;
- operation and maintenance guidelines;
- monitoring and record-keeping guidelines;
- plans and specifications for proposed new or modified waste handling facilities.

The need for additional or alternative plan information will be established on a case-by-case basis for plans required as part of a corrective order, or to account for extraordinary circumstances. The level of detail of information required in the various plan sections will depend on the size, complexity, and other specifics of each CAFO.

Waste management plans must show, when applicable, how the CAFO will achieve an agronomic balance of nutrients land-applied with nutrients removed in harvested crops. ODA will typically require an agronomic balance for nitrogen, but in some cases for phosphorus. Phosphorus balance will be required when the CAFO is within a watershed that has been designated by the state as water quality limited for phosphorus, and when the NRCS phosphorus index for the land application soils is exceeded.

Once the plan has been submitted to and approved by ODA, the facility must be managed in compliance with the plan at all times. The application or discharge of any process wastewater more frequently than, at a concentration in excess of, or at times not specified in the waste management plan will constitute a violation of the permit.

2.11 Waste storage facilities

All waste storage facilities constructed after the effective date of this permit that are required to be addressed in a new or updated waste management plan must be sited, designed, constructed, operated and maintained consistent with the waste management plan developed as provided in the permit.

New and modified construction of waste facilities likewise must be sited, designed, constructed, operated and maintained consistent with the waste management plan and must comply with the terms and conditions outlined in OAR 603-074-0018.

All facilities are subject to the provisions of OAR chapter 340, division 51, relating to the use of best practicable waste control technology and review and approval of facility location, design, construction, operation and maintenance.

The department will accept design and post-construction certification by a licensed engineer for:

- earthen impoundments (*e.g.*, ponds, basins and lagoons with permeable or impermeable liners)
- earthen conveyances (*e.g.*, ditches)
- animal holding areas (*e.g.*, lots, pens, exercise yards, alleys, and earthen-floored buildings within the production area)
- primary storage structures for liquid and solid manure (*e.g.*, concrete or steel tanks, earthen- or concrete-surfaced solid manure storage facilities). A primary storage structure is any storage structure intended to hold an operation's waste for a period of five or more days.

For facilities intending to use experimental or unproven treatment methods or technology, design and post-certification by a licensed engineer is not allowed. In these cases, the operator must contact the department prior to construction for approval on a case-by-case basis.

For all other modifications or new construction, no approval will be required. However, any such modification or construction must be described in the current, approved waste management plan, or a revised plan must be prepared and submitted to the department for approval prior to construction.

2.12 Monitoring, reporting and record retention requirements

Monitoring requirements are dependent on the size and complexity of the facility. Generally, any discharge or runoff that occurs must be recorded and reported to the department. The record must contain a description and cause of the discharge; the period of discharge, including exact dates, times, and duration of discharge; an estimate of the volume of the discharge; name or location of receiving water, and corrective steps taken to reduce, eliminate or prevent recurrence.

In the event a discharge occurs, the department must be notified within 24 hours of the event. A written report must be submitted to the department within five days. In the event of equipment failure, the department must be notified within 24 hours.

Specific monitoring requirements may be established on a case-by-case basis for certain facilities, such as those located in groundwater management areas, or those that have been issued a corrective order relating to waste management. Land application records should be contained in the waste management plan.

All required records must be kept and maintained at the facility for a period of three years, and must be available to ODA upon request.

2.13 Cancellation of coverage

A registrant may request that coverage under this permit be cancelled, providing certain criteria are met:

- conditions or standards have changed so that the source or activity no longer qualifies for general permit coverage;
- the facility no longer has animals on site and waste storage facilities have been properly decommissioned;
- the registrant certifies that it will not commence operations at the same location without making a new application for registration under this permit or applies for an individual permit.

The department will respond to a written request for cancellation by conducting a site inspection and a review of the operator's file. A written determination on the request will be provided to the registrant after due consideration by the department.

2.14 General conditions

General conditions G1 through G13 are standard permit conditions required by federal law in every NPDES permit and are not repeated here.

3.0 Environmental Concerns

3.1 *Antidegradation policy review*

The antidegradation policy in OAR 340-041-0026 requires that degradation of existing water quality be prevented unless necessary for economic and social benefit. The NPDES CAFO general permit will be replacing an existing WPCF general permit for CAFOs (WPCF #800). The proposed NPDES permit continues to prohibit the discharge of waste or wastewater except during a catastrophic rainfall event. This is defined as a 25-year, 24-hour storm event, including tornados, hurricanes, or other catastrophic conditions that would cause an overflow from the waste control facility. This is essentially a “no discharge” technology-based effluent limit required by the federal EPA. Because this proposed permit is replacing an existing permit, issuance of the permit is not considered a new or increased discharge load and existing water quality will be protected. In addition, the permit will not degrade existing water quality because there is no on-going discharge.

3.2 *Antidegradation policy: Special policies and guidelines (OAR 340-041-0470)*

To preserve or improve the existing high quality water for municipal water supplies, recreation and preservation of aquatic life in the Clackamas River, McKenzie River (above Hayden Bridge) and North Santiam River subbasins, OAR 340-041-0470 *Special Policies and Guidelines* prohibits new or increased waste discharges in these subbasins.

As discussed in the previous section, the proposed NPDES CAFO general permit is replacing the WPCF CAFO general permit. Existing CAFOs currently registered under the WPCF permit will be transferred to the NPDES general permit. OAR 340-041-047(4) allows renewal or transfer of permits within these three basins provided there is no increase in discharge load. Since the proposed permit requires that wastes be irrigated on land at agronomic rates and discharge is prohibited unless a chronic or catastrophic rainfall event occurs (defined as a 25-year, 24-hour storm event), there will be no increase in discharge load. New CAFOs will also be allowed to register under the proposed general permit provided that their waste loads are irrigated on land at agronomic rates, which is not considered an increase in wasteload pursuant to OAR 340-041-0470(4)(c).

3.3 *Total maximum daily loads (TMDLs)*

OAR 340-045-0035(3) requires DEQ to explain whether the NPDES CAFO general permit allows the discharge of pollutants that affect parameters for which a waterbody may be water quality limited under Section 303(d)(1) of the Clean Water Act, and if so, how the department can allow these permittees to discharge these pollutants to these waterbodies.

The CAFOs to be covered by this general permit have the potential to discharge to a variety of receiving streams. Most of these streams are listed as water quality limited for dissolved oxygen and temperature and many for bacteria. While CAFOs have the potential to discharge a variety of pollutants as discussed in the previous section, the CAFO general permit only allows the discharge of waste or wastewater to surface waters during either chronic or catastrophic rainfall events. This is defined as a 25-year, 24-hour storm event, including tornados, hurricanes, or other catastrophic conditions that would cause an overflow from the waste control facility. This is essentially a “no discharge” technology-based effluent limit required by the federal EPA.

The Department does not expect waterbodies to exceed water quality standards as a result of CAFO discharges during chronic or catastrophic rainfall events because of high flows in the receiving waterbody and the diluted nature of the wastewater at the time of discharge.

Permit coverage under the NPDES CAFO general permit may be terminated if TMDLs are established and a CAFO's discharge during chronic rainfall or catastrophic events is determined to be a contributor to a stream that is water quality limited. In these situations, an individual permit or different general permit may be required that would include waste load allocations.

4.0 What happens next?

4.1 Public comment period

The permit is proposed for public comment beginning on October 1, 2002. The public comment period closes on November 15, 2002, at close of business that day. Both ODA and DEQ will accept comments on the permit. The public notice and related documents will be available on DEQ's and ODA's web sites after October 1, 2002.

4.2 Public hearings

Three public hearings are scheduled. The first hearing is November 7, 2002, at Eagle Crest Resort, High Desert Room, 1522 Cline Falls Highway, Redmond, Oregon 97556, from 9:00 a.m. until 11:00 a.m.

The second hearing is scheduled for November 13, 2002, at the OSU Extension meeting room, 2203 4th Street, Tillamook, Oregon 97141, beginning at 7:00 p.m.

The third hearing is scheduled for November 14, 2002, in the basement hearings room of the Oregon Department of Agriculture, 635 Capitol St. NE, Salem, Oregon 97301, beginning at 1:00 p.m.

An informational session will be provided at the beginning of each hearing with the opportunity for the public to ask questions they may have about the permit and the proposed rules. Oral and written comments will be accepted at the hearing.

At the conclusion of the comment period, the presiding officer will prepare a report summarizing all comments received. The public hearings will be tape recorded but the tapes will not be transcribed.

4.3 Response to comments

In accordance with ORS 183.335(13), no comments may be accepted after the deadline for submission of comments has passed. ODA and DEQ will respond to comments received during the comment period. Once comments have been received and evaluated, the departments will decide whether to issue the permit and rules as proposed or make changes to the permit and rules.

ODA and DEQ will review and evaluate their respective rulemaking proposals in light of all information received during the comment period. Following the review, the DEQ rules may be presented to the EQC and the ODA rules to ODA's director as originally proposed or with modifications made in response to public comments received.

The EQC will consider DEQ's recommendation for rule adoption during one of their regularly scheduled public meetings. The targeted meeting date for consideration of this rulemaking proposal is January 25 or 26, 2002. ODA's director will consider ODA's recommendation for rule adoption in mid-December 2002. These dates may be delayed if needed to provide additional time for evaluation and response to comments received during the hearing process.

4.4 Changes to the fact sheet and permit evaluation report

Depending on the nature of comments and any changes made to the permit as a result of the comments received, this fact sheet and permit evaluation report may be modified. The departments may also choose to update the fact sheet and permit evaluation report through memorandum or addendum.

Quick Guide Oregon's CAFO Program

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INTRODUCTION

In 2001, the Oregon Legislature passed House Bill 2156, directing the Oregon Department of Agriculture (ODA) to regulate all livestock operations to satisfy both state water quality laws and the federal Clean Water Act. Oregon law now defines CAFO to include state and federally defined livestock operations including certain **Animal Feeding Operations (AFOs)**. ODA is revising the current CAFO permit to meet the requirements of the National Pollutant Discharge Elimination System (NPDES) program. The new **Oregon CAFO General Permit** will be available early in 2003. Facilities that operate in highly environmentally sensitive areas, use experimental technology or may have compliance issues that will take longer than two years to rectify will apply for the **Oregon Individual Permit**. Producers will transition from the current permit to the new one over a three year period.

DEFINITIONS

AFO - Animal Feeding Operation (A term in federal law)

Federal definition: a lot or facility where the following conditions are met; (a) animals have been, are, or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12-month period, and (b) crops, vegetation, forage growth, or post-harvest residues are not sustained in the normal growing season over any portions of the lot or facility.

CAFO - Confined Animal Feeding Operation

The concentrated, confined feeding or holding of animals or poultry, including but not limited to horse, cattle, sheep, or swine feeding areas, dairy confinement areas, slaughterhouse or shipping terminal holding pens, poultry and egg production facilities and fur farms; in buildings or in pens or lots where the surface has been prepared with concrete, rock, or fibrous material to support animals in wet weather, that has wastewater treatment works, or that discharges any wastes into waters of the state.

NPDES - National Pollutant Discharge Elimination System

The Department of Environmental Quality (DEQ) is currently the state agency delegated to issue NPDES permits in Oregon. ODA will soon begin to issue NPDES permits to CAFOs. The new Oregon CAFO General Permit will be available early in 2003.

WPCF - Water Pollution Control Facilities and the Oregon CAFO Permit

DEQ issued a General WPCF Permit for CAFOs that ODA has been administering since 1990. The General WPCF Permit for CAFOs will be discontinued and replaced with the new NPDES CAFO permit (Oregon CAFO General Permit).

MOU - Memorandum of Understanding

An MOU has existed between EPA, DEQ, and ODA since 1993. The original MOU facilitated the transition of the CAFO permit program from DEQ to ODA. In 1995, the MOU addressed transfer of the state WPCF permit program for CAFOs from DEQ to ODA. A new MOU is currently being developed that will address the federal NPDES permit ODA will issue.

CAFO Quick Guide: "In 2001, the Oregon Legislature passed House Bill 2156 directing the Oregon Department of Agriculture (ODA) to regulate all livestock feeding operations to satisfy both state and federal water quality laws."

IS YOUR OPERATION AN AFO OR A CAFO?

An AFO is a lot or facility where animals are stabled or confined and fed or maintained for a total of 45 days or more in any 12-month period, in an area where little or no vegetation is sustained in the normal growing season. The quantity of a particular species of animals that determines whether an operation is defined as a CAFO is specified below. An AFO is classified as a CAFO that requires an Oregon CAFO Permit when either of the two following criteria is met:

1. More than the number of animals specified in any of the following categories are confined:

- 1,000 slaughter and feeder cattle
- 700 mature dairy cattle (whether milked or dry cows)
- 2,500 swine each weighing over 55 pounds
- 500 horses
- 10,000 sheep or lambs
- 55,000 turkeys
- 100,000 laying hens or broilers (if the facility has continuous overflow watering)
- 30,000 laying hens or broilers (if the facility has a liquid manure system)
- 5,000 ducks
- 1,000 animal units (mathematical calculations of animal weight and manure production)

2. More than the following number and types of animals are confined plus one of the conditions listed:

- 300 slaughter or feeder cattle
- 200 mature dairy cattle (whether milked or dry cows)
- 750 swine each weighing over 55 pounds
- 150 horses
- 3,000 sheep or lambs
- 16,500 turkeys
- 30,000 laying hens or broilers (if the facility has continuous overflow watering)
- 9,000 laying hens or broilers (if the facility has a liquid manure system)
- 1,500 ducks
- 300 animal units

Plus one of the following conditions:

- Pollutants are discharged into navigable waters through a man-made ditch, flushing system, or other similar man-made device, or
- Pollutants are discharged directly into waters of the state that originate outside of and pass over, across, or through the facility or otherwise come into direct contact with the animals in the production area of the operation.

Note: An AFO is not a CAFO if the operation discharges only in a 25-year, 24-hour storm event.

WASTE MANAGEMENT PLANS

Along with the permit mentioned above, all CAFOs that require a permit must prepare an animal waste management plan. This plan is a detailed description of facilities and operations with respect to containment, treatment, storage, and disposal of waste and wastewater. The plan also describes how compliance with permit conditions and water quality laws will be achieved and maintained. ODA will require only the minimum information reasonably needed to satisfy state and federal law and to set maximum animal numbers. The level and amount of information required will depend upon the size, complexity, and other specifics of each facility.



INSPECTIONS

Permitted operations will receive regular, routine inspections on a scheduled frequency determined by overall program resources. The goal is for each permitted operation to receive one routine inspection per year by an ODA Livestock Water Quality Specialist (inspector). Inspectors are also available throughout the year to help producers stay in compliance with permit conditions and regulations. Inspectors are ready to assist operators with animal waste management plan review and can provide ideas for improving management practices. They are also an excellent source for information about technical and financial assistance.

Educational Review

An operator may request their local inspector to conduct an educational review, which allows the inspector to point out potential water quality issues and to suggest best waste management practices. Generally, these reviews are informational only. However, if egregious violations are found, operators may be subject to enforcement action. If you are interested in an educational review, please contact your local inspector. An educational review may be especially useful for those who don't know if they need a permit, as well as for those who now need a permit due to the change in definition of a state CAFO.

Follow-up Inspections

Follow-up inspections are made to determine compliance related to prior-issued enforcement orders.

Complaint Investigations

Investigations are conducted for water quality concerns on any permitted or non-permitted livestock operation in response to a complaint.

CAFO Quick Guide: “The goal is for each permitted operation to receive one routine inspection per year by an ODA Livestock Water Quality Specialist (inspector).”

(Inspections cont.)**First Time Inspections**

Facilities inspected for the first time that are found to be discharging to surface water may be subject to enforcement action. An overview is below:

Facilities with less than 1,000 animal units

Operator will receive a NON or NON/POC with necessary corrective improvements scheduled.

No monetary penalty will be assessed unless there has been previous regulatory action, or an egregious violation (intentional, or with serious consequences to human and/or environmental health.)

Follow-up inspections will be scheduled to gauge and monitor progress.

Facilities with greater than 1,000 animal units

Operator will receive a NON or NON/POC with necessary corrective improvements scheduled.

Follow-up inspections will be scheduled to gauge and monitor progress.

File may be referred for civil penalty assessment depending upon the nature and severity of the violation.

COMPLIANCE AND ENFORCEMENT

ODA inspectors have primary responsibility for compliance monitoring and enforcement. Inspectors will leave a copy of their inspection report with the operator at the conclusion of the inspection, noting the compliance status. At the time of inspection, ODA's inspectors may issue:

Facility in Compliance (FIC)

Facility was found to be in compliance with CAFO permit requirements.

Water Quality Advisory (WQA)

Identifies potential problems and makes recommendations to producers for technical and financial assistance.

Notice of Noncompliance (NON)

Issued for violations including discharges or operating without a required permit. Corrective actions described in a NON must be completed within 30 days if there is not a separate Plan of Correction.

Plan of Correction (POC)

If corrective actions will take longer than 30 days to complete, inspectors may issue a POC along with the NON. The POC provides corrective measures, with deadlines for completion not to exceed two years and directs producers to sources of technical and financial assistance.

FREQUENTLY ASKED QUESTIONS

Why were the CAFO rules changed?

In 2001 the Oregon Legislature passed House Bill 2156. This bill requires ODA to control and prevent water pollution from livestock and other animal based operations by developing a program and adopting rules and regulations to comply with the federal Clean Water Act.

Who developed the new rules?

The rules were developed cooperatively by a CAFO Rules Advisory Committee, made up of farmers, ranchers, industry representatives, environmentalists, and concerned citizens. ODA and the committee have been working to develop the new permit and administrative rules since fall 2001.

When will the new rules take effect?

ODA is currently working with the EPA and DEQ to finalize the administrative rules. Adoption and implementation are expected in early 2003.

Who is affected by these rules?

All citizens are responsible for maintaining water quality. Livestock producers who raise animals on ground without vegetation and those that have wastewater treatment works may be required to obtain a permit.

If I have only a few horses, llama, sheep, or other animals, am I subject to these rules?

Again, everyone is responsible for protecting the quality of the water in the state. Generally, if you have only a few animals you won't need a permit. However, even if you don't have a permit, you cannot pollute.

What do you mean by "wastewater system" or "wastewater treatment system"?

These terms apply to the equipment and method used for handling wastes at the facility. This may include a conveyance ditch that carries wash water from a barn to the pasture, or it may include an underground storage tank, the contents of which are applied to fields.

What do you mean by "confined"?

Confinement, for purposes of the law, means any part of a day in which animals are housed or corralled. If your animals come into the barn each day to eat and then return to the pasture, even if they have free access to the barn, that is considered a day of confinement. If this occurs more than 45 days a year, it meets the definition of confined. If your animals are always pastured, and are fed in the pasture, then they are not considered confined.

CAFO Quick Guide: "The rules were developed cooperatively by a CAFO Rules Advisory committee made up of farmers, ranchers industry representatives, environmentalists, and concerned citizens."

(FAQ's cont.)

If my operation does not fit any of the new definitions, am I required to prevent animal waste discharges from my operation?

Yes, according to state law no one can allow waste to be in a location where it is likely to escape or be carried into waters of the state.

What are "waters of the state"?

"Water" or "the waters of the state" includes lakes, bays, ponds, impounding reservoirs, springs, wells, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Pacific Ocean within the territorial limits of the State of Oregon and all other bodies of surface or underground waters, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters which do not combine or effect a junction with natural surface or underground waters), which are wholly or partially within or bordering the state or within its jurisdiction.

Who do I contact if I'm not sure if I need a permit or not?

Several choices are available. You may call your ODA Livestock Water Quality Specialist (see Livestock Water Quality Specialist map on page 8), your local Soil and Water Conservation District, or the Oregon Department of Agriculture.

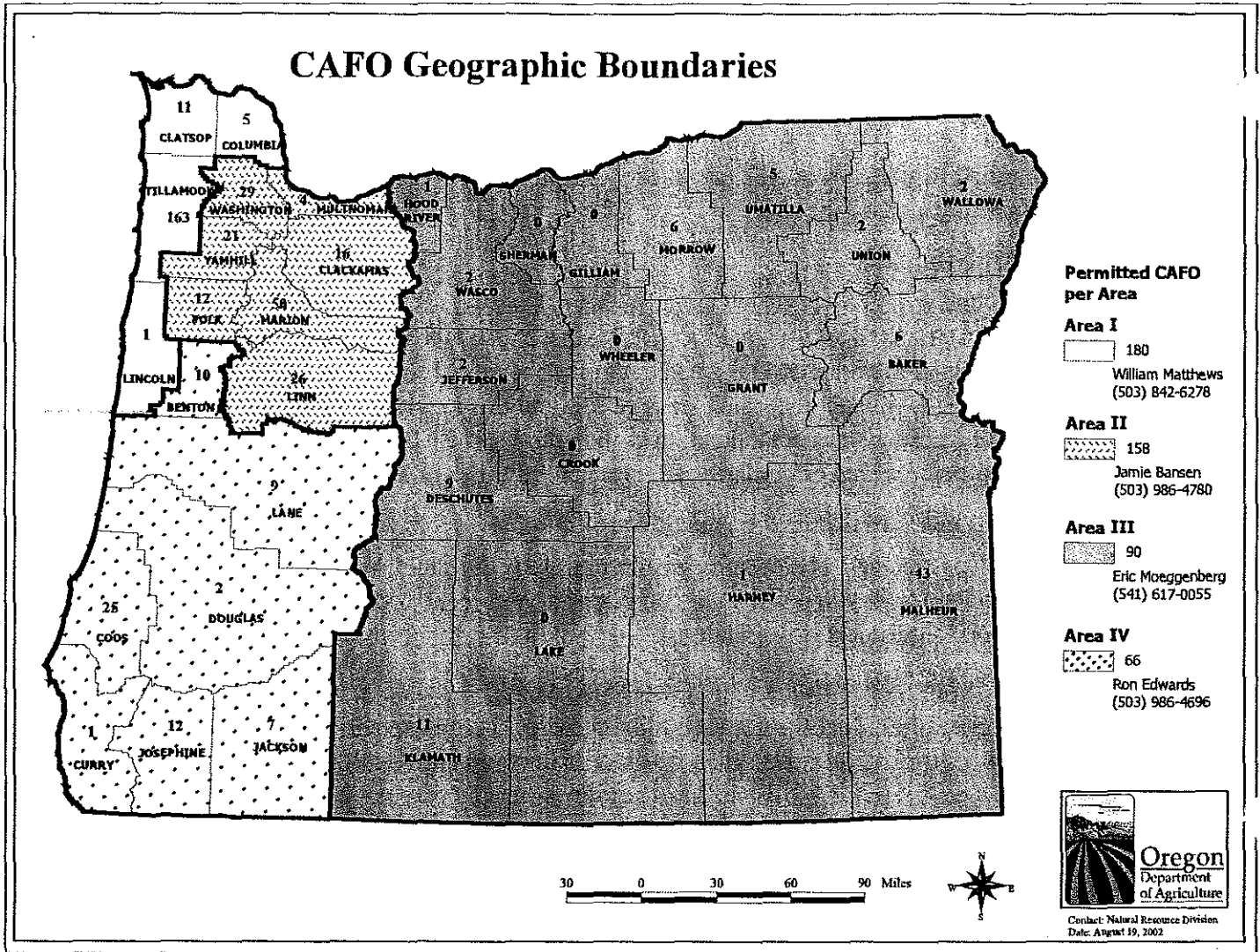
What are the benefits of the new Oregon CAFO General Permit?

The new permit offers benefits not found in the current permit, specifically, certain protections in the event of third-party lawsuits. If an operator is in compliance with the terms and conditions of the permit, then ODA, DEQ, EPA or third parties ordinarily may not bring an enforcement action against the permittee. In addition, the new permit allows operators to legally discharge wastewater in certain extreme conditions (such as a 25-year, 24-hour storm event), if they are operating in compliance with the conditions of the permit. The new permit also helps Oregon operate on a more even "playing field" with other states that offer NPDES permits to livestock operations.

What kind of technical or financial assistance is available?

Technical and financial assistance is available from a variety of sources. Call your local Soil and Water Conservation District, OSU Extension agent, Farm Service Agency, Natural Resources Conservation Service, or commodity and producer groups for more information.





**Oregon Department of Agriculture
 Natural Resources Division
 635 Capitol St. NE
 Salem, OR 97301-2532**

**(503) 986-4700
 TTD (503) 986-4762**



Akhal-Teke



**Oregon
 Department
 of Agriculture**

All publications produced by the Oregon Department of Agriculture will be made available in alternate formats when needed.

10/1/02



**Contains
 Recycled
 Materials**




Port of St Helens Industrial Outfall

- Source description
- EQC involvement and rules
- Social economic impact
- Environmental impact
- Potential anti-degradation findings
- Schedule for next steps



Port of St. Helens Industrial Outfall NPDES Permit Application

Legend

-  Proposed Facilities
-  Port of St. Helens Industrial Discharge Line
-  Port of St. Helens Pump Station



500 1000 1500 2000 Feet

Date: 01/21/02

Port of St. Helens Industrial Outfall

- 4 facilities
- Port Westward (PGE)
 - Energy
 - Efficient use of internal cooling
- Cascade Grain
 - Ethanol
 - Effluent cooling tower
 - Evaporative Ponds
- Summit Westward
- 4th plant

Treatment System

- Collect wastewater
- Primarily thermal load
- Temperature management plan
 - Limit increase as plant come on line
 - Each plant develop internal temperature control
- Mixing zone and outfall

Outfall

Proposed Port Westward Plant Site Pump Station

Existing Beaver Plant

Proposed Cascade Grain Site

Proposed Summit Westward Plant Site

EQC Involvement

- **New Major Source**
- **Anti-degradation findings**
 - Meet WQ standards
 - Not Impair Use
- **Value of Assimilative Capacity**
 - Environmental effects / alternatives
 - Economic effects / cost
- **Specific findings for temperature**
- **Specific findings for Water Quality Limited Streams**
 - Temperature, Arsenic, Oxygen, pH, Bacteria
 - PCBs, DDT/DDE (fish tissue)
 - 2,3,7,8-TCDD Dioxin

Local Economy

Distress Index
8 economic measures
Statewide index is 1.0
County threshold 1.20
Community threshold 1.25

Columbia County 1.05
19 counties > 1.2
Wheeler 1.52

Unemployment 8.7% (7/02)
Oregon 7.0

Population Change 1990 2001
Oregon 20
Columbia County 18
Clatskanie -6

Clatskanie 1.28
Prescott 1.54
Rainier 1.32
Vernonia 1.35
(12-66 percentile of 77)
Maximum 2.09
Astoria 1.29
Garibaldi 1.48
Nehalem 1.73
Tillamook 1.59
Banks 1.85
Gaston 1.86
NE Portland 1.48
Lents 1.27
Rockwood 1.28

★ Distressed Community

□ Distressed County

□ Non-distressed area within distressed county

Employment

- Construction
 - > 300/project > 1100
 - 18 – 24 months
 - Employment multiplier 1.90
 - Total 234 jobs (111)
- Permanent Jobs
 - 123
 - 3 companies

Area	Employment (2000 census)	% Increase	% Increase with multiplier
Columbia County	21,625	0.6 %	1.1%
Within Columbia County	9,330	1.3%	2.5%
Clatskanie	700	17.6%	33.4%

Payroll

- Construction
 - 63 -118 million \$ total
- Permanent
 - 3 Facilities
 - \$ Est. 8.1 million
 - \$66,000 average
 - \$29,094 average in county
- Business Multiplier 1.37
- Potential increased \$11.1 Million / year
- Annual payroll from jobs in Columbia County \$293,883,000
- 3.8% increase

Taxes / Investment

- \$900 million invested
- \$ 98 million taxes (over 40-years)
- > 20% of tax base (relative to current)

Environmental Impact

- Rules and Findings
- Temperature
 - Pollutant produced
 - Specific rules
- Other parameters
 - WQL
 - Potential listings

**New Thermal Sources are allowed a 1 F total cumulative increase if two series of finding are made :
{OAR 340-41-026(3)(a)(F)}**

Series (i)

- **Even with the 1 F increase will not impair ability of TMDL to achieve numeric criteria**

Series (ii)

- **Stay within the 1 degree increase**
- **Not result in a measurable impairment to beneficial uses**
 - **< 0.25F at mixing zone**
 - **Or demonstrate to EQC**

**Petition DEQ for exception to F
{OAR 340-41-120(3)(a)(G)}
2 of 3 findings**

**The discharge will result in less than 1F at the edge
of the MZ and either**

**• Beneficial uses will not
be adversely impacted**

.. Or

- All Reasonable BMPs
are being implemented**
- Not significantly effect
beneficial use**
- Environmental costs of
full treatment outweigh
the environmental costs
of discharge**

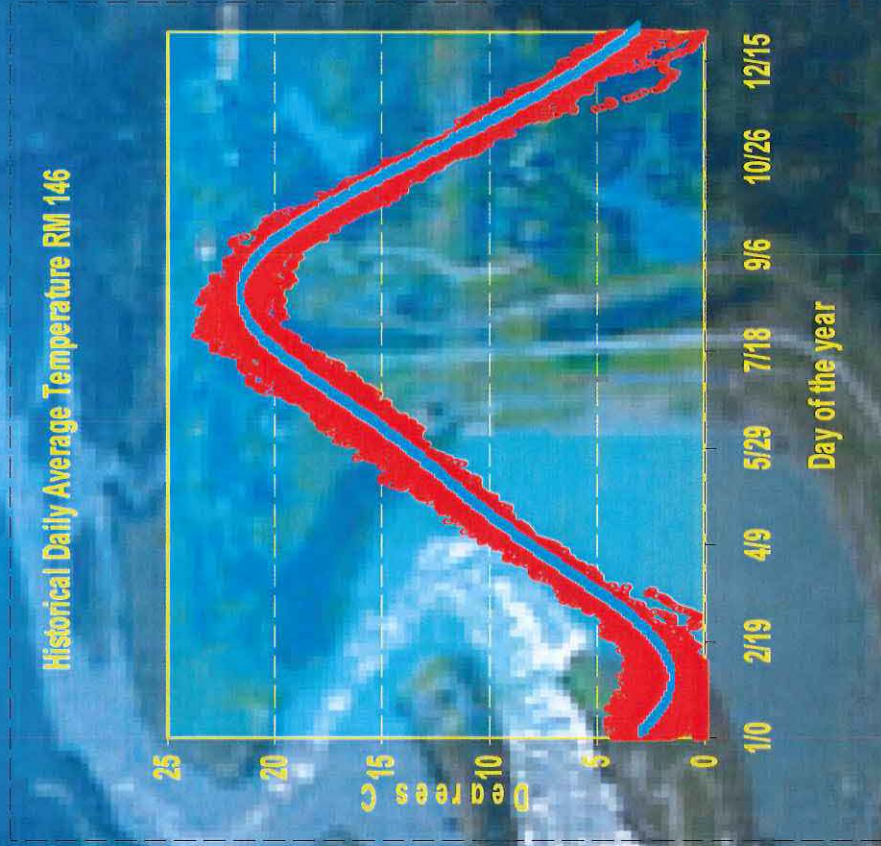
Petition the EQC

{OAR 340-41-026(3)(a)(H)}

- **Similar findings as G**
- **Can exceed 1F at the edge of the MZ**
- **Would be a site specific standard**
 - Submit to EPA for approval as Variance
 - Require consultation
 - Could take years

Temperature and Potential Impact

Criteria	Temperature (C)
Criteria 20 C	
Growth Rates for Spring Chinook under different feeding regimes	12-14
Smolt delay	14-17
Juv. Growth	18
Habitat use	15-18
Predation	16
Disease	15-16
Migration Adult	18-20
Egg / Larval	15
(from Adult exposure)	17
Upper Incipient Lethal Temp.	
Chinook	25
Coho	25
Steelhead	25-26
Chum	24

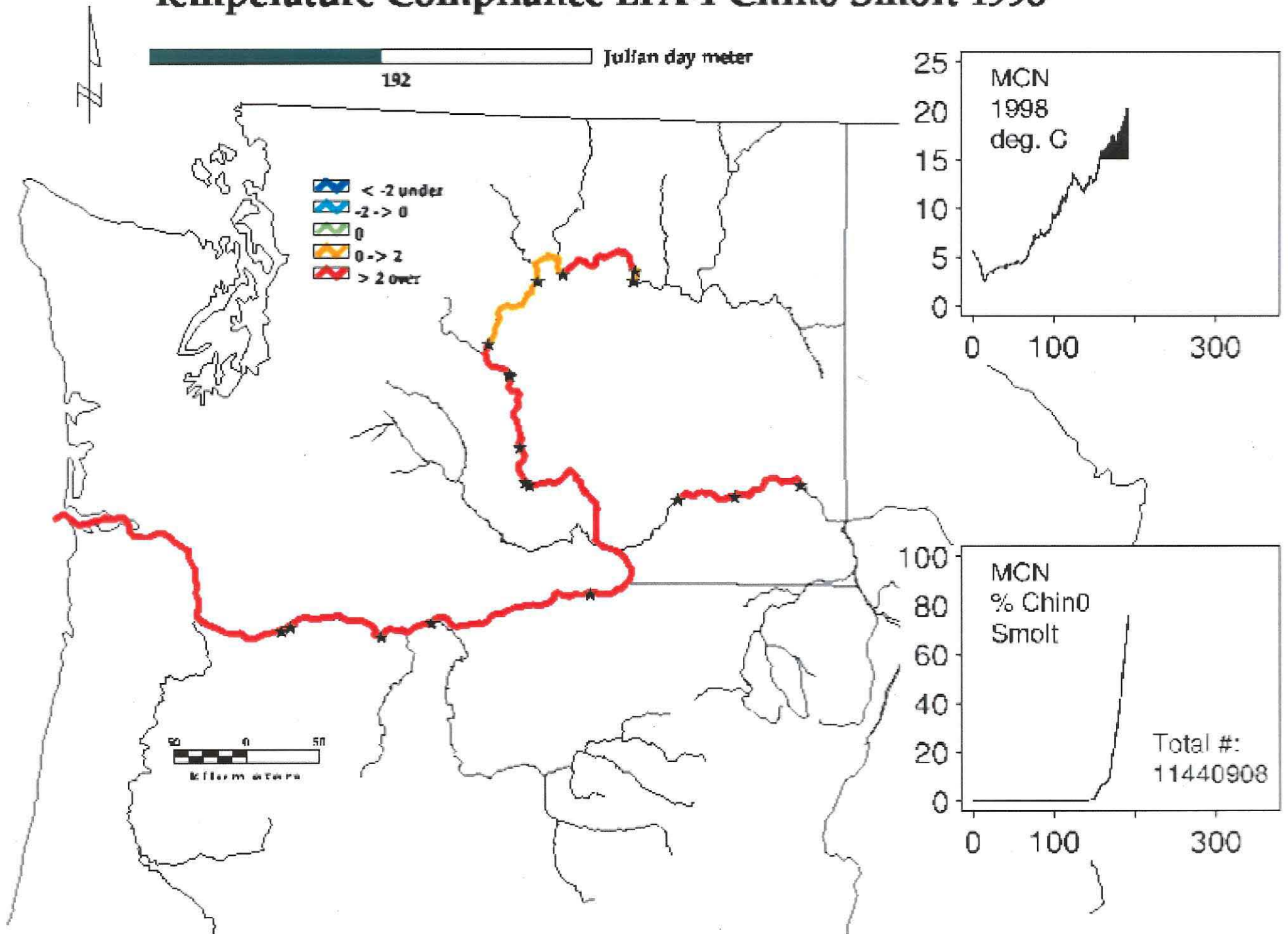


Salmonid Presence

- Increase Maximum
- Shift in Timing
- Juvenile Out migration exposure > Optimum
- Adult Migration
- Exposure > Optimum
- Rearing and presence
- Not meet numeric Criteria (20C)

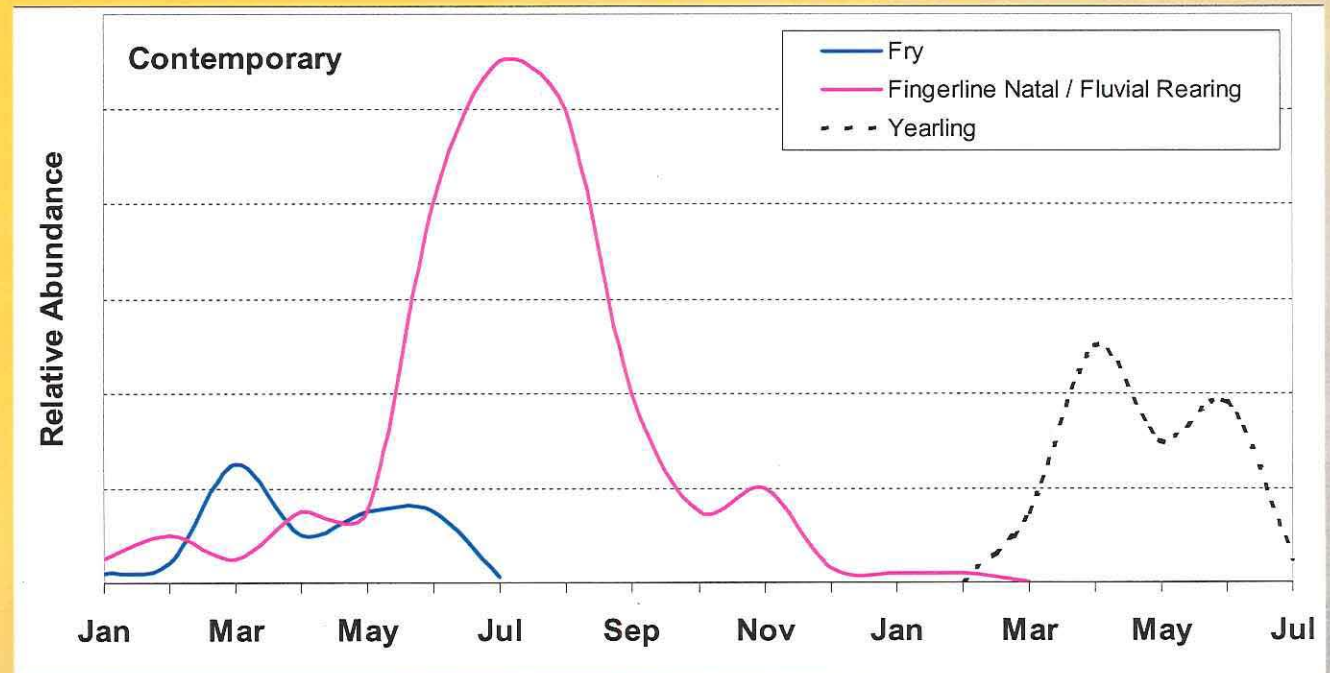
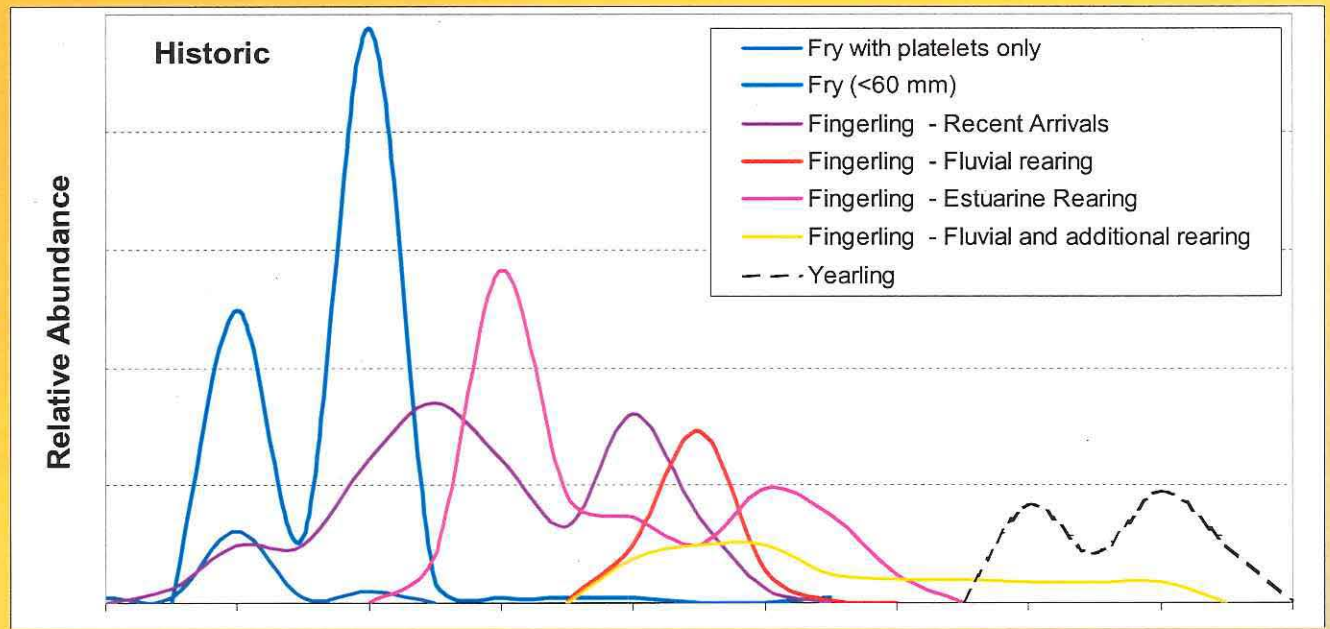


Temperature Compliance EPA-1 Chin0 Smolt 1998



Historic and Contemporary Life History

One brood year of chinook salmon in the Columbia River estuary



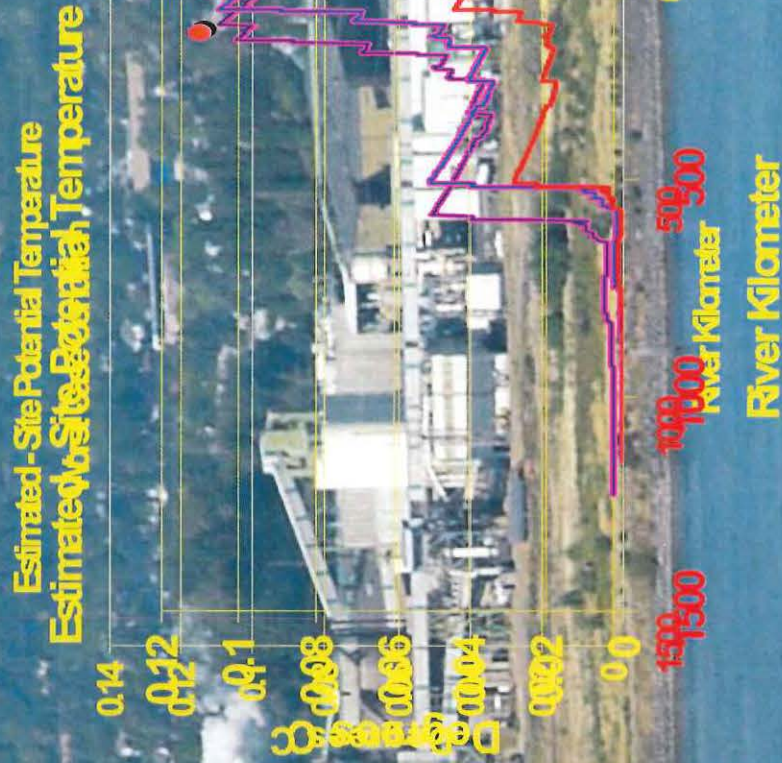
Based on data from
Rich (1920) &
Dawley et al. (1985)

Individual Point Source Heat Accumulation

- NPDES Estimated using Heat Balance
- Uncertainty analysis
- < 0.14 during period when WQL
- Typical Summer < 0.06C
- Proposed source < 0.0006C

Growth Rates for Spring Chinook under

Condition simulated using simple heat balance	Annual Current	Current WQL July 31 - September 9	Annual No Dams No Dams WQL July 31 - August 25	Effluent temperature estimated from DMRs for major sources, Trojan Power Plant not operating	Temperature (C)
0.06	0.04	0.07	0.04	15	25
0.06	0.04	0.07	0.04	10	20
0.06	0.04	0.07	0.04	5	15
0.06	0.04	0.07	0.04	0	10
0.06	0.04	0.07	0.04	0	5
0.06	0.04	0.07	0.04	0	0



Temperature (C)

Temperature TMDL

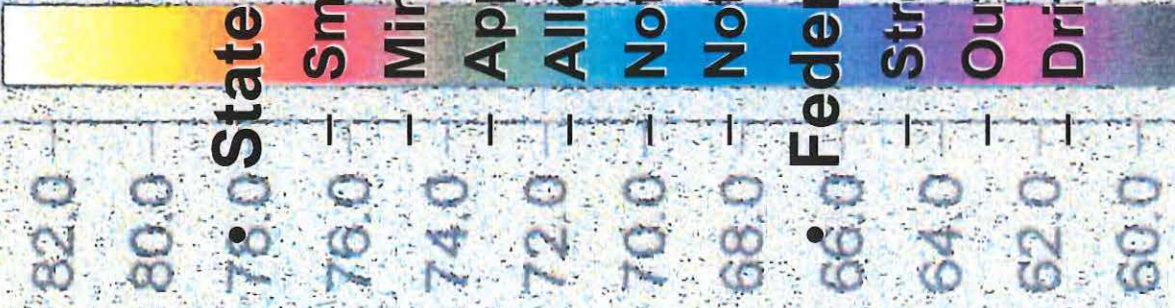
- TMDL
- Dams Major Source
- Point sources (106)
 - Small impact, 0.25°F
 - Significant allocations
 - Many minor group allocations
 - Includes Port of St. Helens
 - Allocation strategy
 - No increase current
 - Apply MZ
 - Technology
 - Future growth / Development
 - Margin of Safety
- Schedule
 - Oct 1, TMDL workshop Oregon
 - Nov. – Jan. 90 day comment period
 - Feb-April Respond to public comment
 - May 2003, Issued

Mixing Zones



Mixing Zone Placement

* > 83.0°F



State Requirements

Small as feasible

Minimize impact

Appropriately placed

Allow fish passage

Not acute ZID

Not chronic MZ

Federal guidance

Stream Depth

Outfall design

Drifting Organisms

Deep - Off Shore

Avoid Juveniles surface orientation

Avoid feeding areas

Avoid Adult migration depth

* < 59.2°F

Port Westward

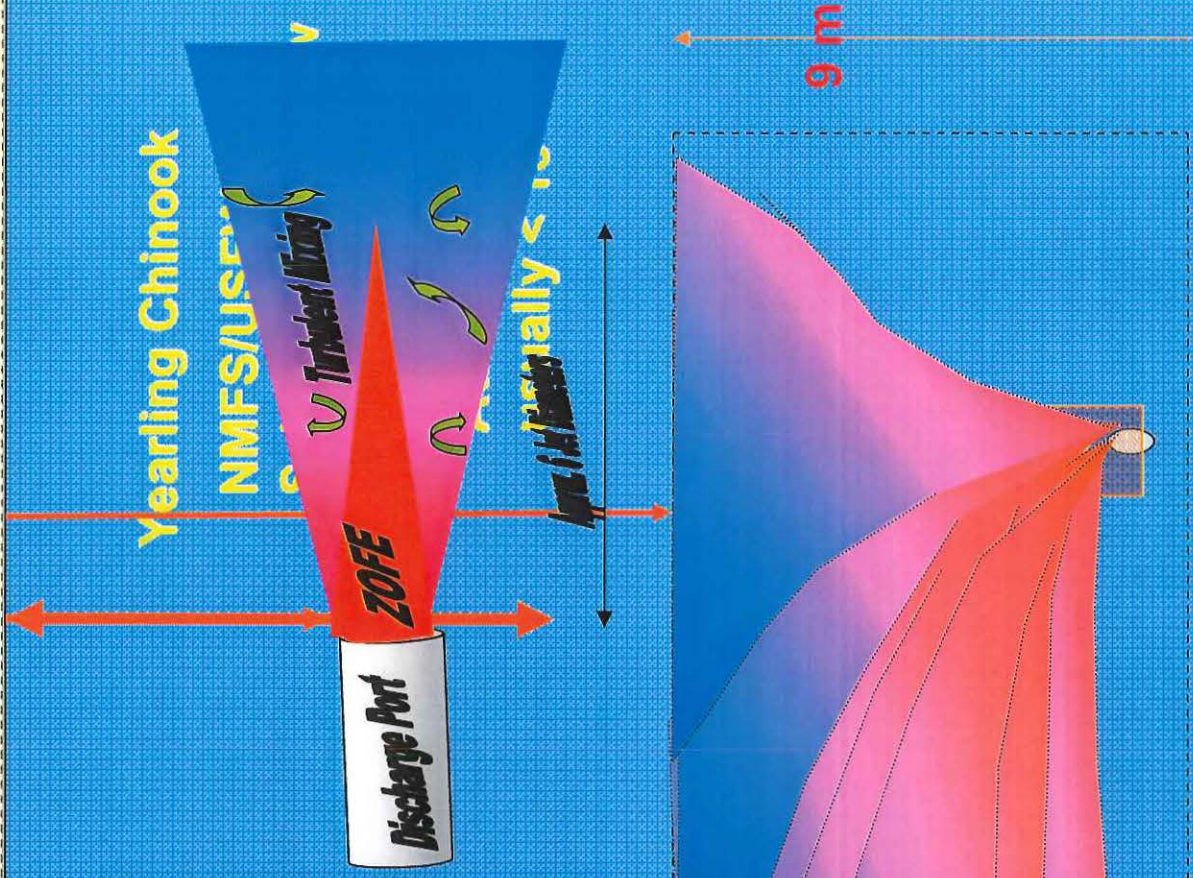
Proposed New Outfall

Existing Beaver Outfall

Columbia River



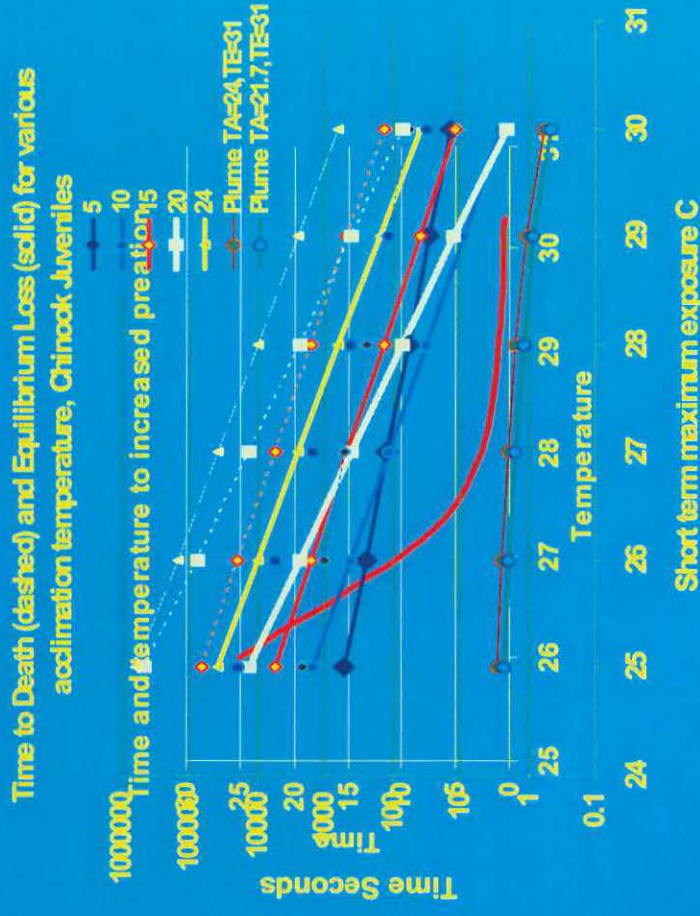
	Dilution	Change in Temperature
MZ	170	0.12 °F
ZID	140	0.16 °F



28 m

Salmonid Drifting through Plume

- Literature Thresholds
- Below lethal exposure Juvenile
- Below environmentally lethal (equilibrium loss) exposure
- Below exposure causing increased predation
- Below exposure causing increased disease exposure
- Below lethal exposure adults
- Below environmental lethal adults
- Adults could avoid
- No thresholds developed (egg development in adults) for some endpoints



New Thermal Sources are allowed a 1 F total cumulative increase if two series of findings are made :{OAR 340-41-026(3)(a)(F)}

Series (i)

- **In the BPJ of the Department Even with the 1 F increase will not impair ability of TMDL to achieve numeric criteria**

Series (ii)

- **Stay within the 1 degree increase**
1st one, << 1

TMDL establish tracking mechanism

Will not impair ability of TMDL to achieve goals

Not result in a measurable impairment to beneficial uses

< 0.25F cited for impairment to uses
No demonstrable impact to

Outfall design and location minimize risk to use

Petition DEQ for exception to F {OAR 340-41-120(3)(a)(G)} 2 of 3 findings

The discharge will result in less than 1°F at the edge of the MZ and eitherless than 0.25

- Beneficial uses will not be adversely impacted .. Or
 - Will meet < 0.25 at MZ cited (F)
 - No quantifiable impairment directly related to this source either
 - Close to the discharge
 - Overall heat loading

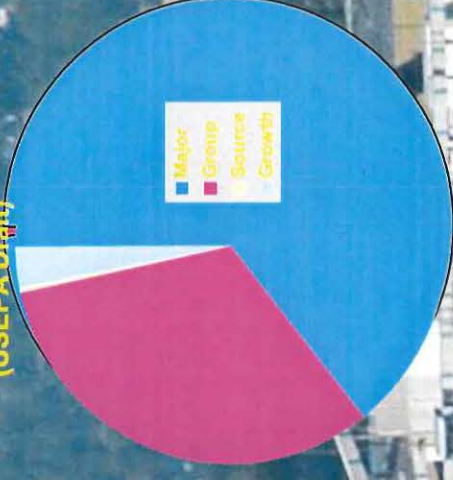
- All Reasonable BMPs are being implemented
 - Efficient use of internal system
 - Temperature Management plan
 - Cost\Effectiveness
- Not significantly effect beneficial use
 - No demonstrable impairment
- Environmental costs of treatment for full treatment outweigh the environmental costs of discharge
 - Struggling with objective measure of environmental cost
 - Trading

Temperature Policy

OAR 340-41-020 (11)

- **Reverse Warming Trend**
 - Responsible for contribution
 - Consistent with TMDL
 - New technology is developing
- **Temperature Management Plan**
 - Develop and implement available technology
 - Encourage new technology BMPs
 - Potential for trading or mitigating

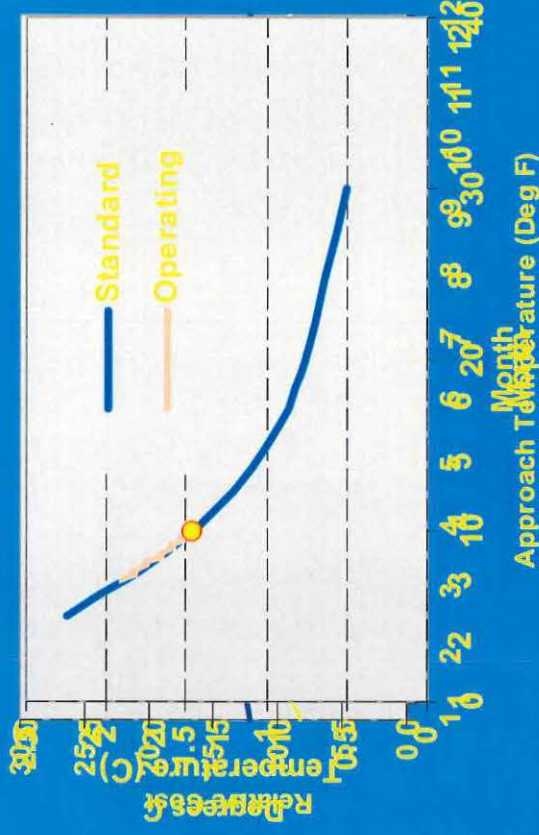
Allocated TMDL to the Summer Average
(USEPA Draft)



TMP

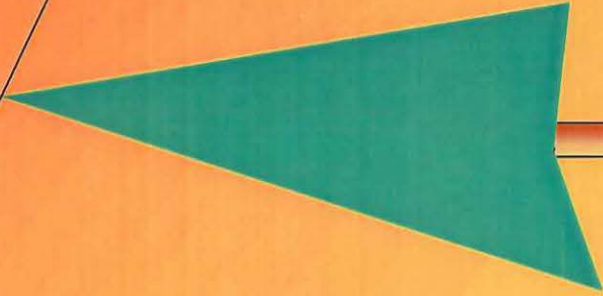
- BAT temperature
- Cooling Tower
- Evaporation Ponds
- Controlled Release
- Phased WLA as sources develop
- Alternatives Evaluation
- Monitoring
- Advanced Technology (Heat Exchanger) and Mitigation

Standard Water Temperature Program Curve



Mitigation

- **Develop and implement companion heat Exchange option year 1-2**
- **Evaluate Effectiveness of heat exchanger year 3**
- **Update permit limits as needed**
- **Mitigate Excess Heat or Solar Radiation**
- **Mitigation plan and implementation years 4-5**
- **Achieved through shade**
- **Net heat energy through life of the facility**

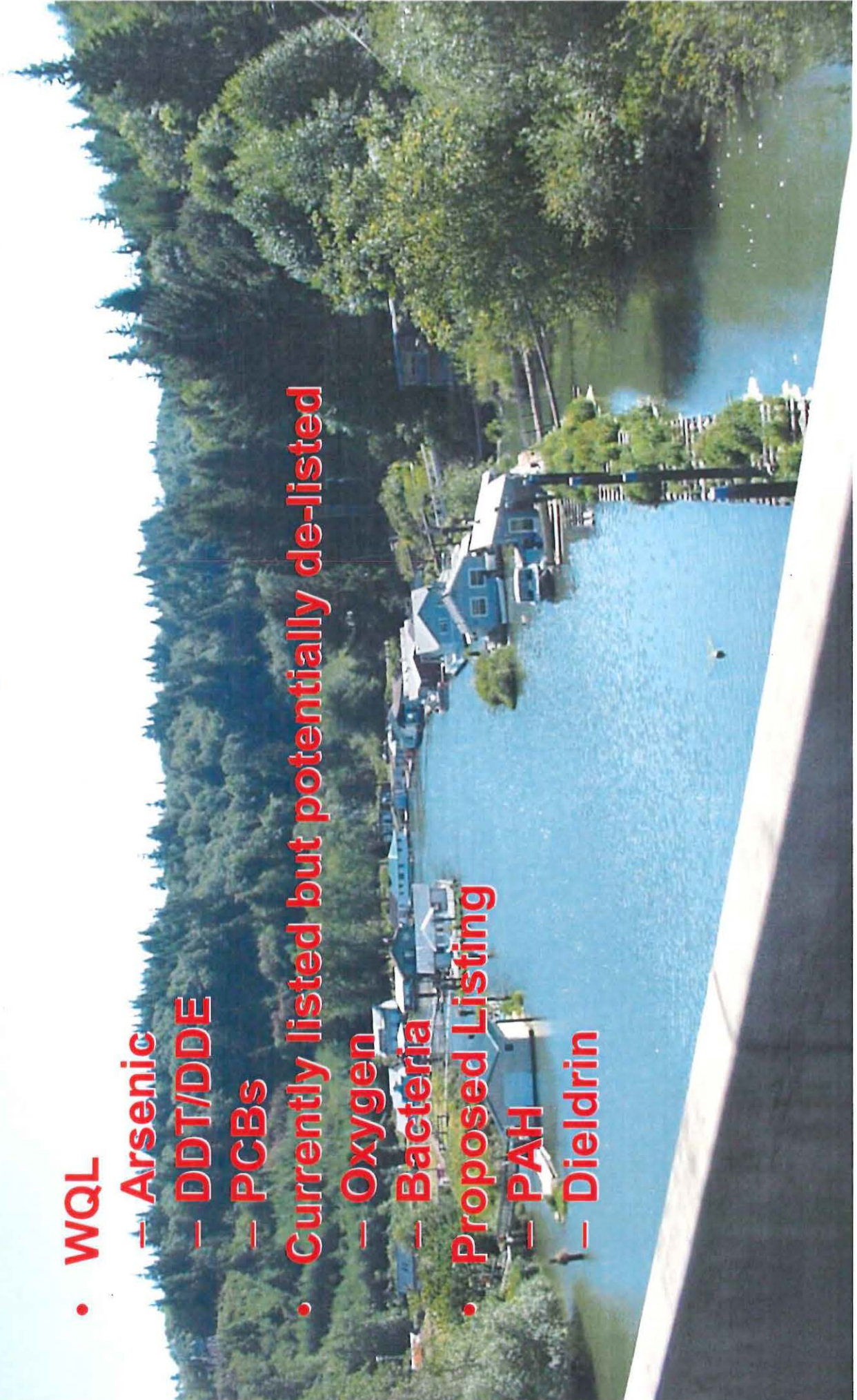


New or increased discharge to a WQL stream OAR 340-41-026(3)(C)

- **Pollutants associated with the proposed discharge are not related either directly or indirectly to the parameters causing the receiving stream to exceed WQS and being designated WQL; or**
- **TMDLs set and reserve assimilative capacity is available at time of discharge, plan being implemented**
- **For Dissolved oxygen allowed a 0.1 mg/l**
- **Under extraordinary circumstances**

Other WQL parameters

- WQL
 - Arsenic
 - DDT/DDE
 - PCBs
- Currently listed but potentially de-listed
 - Oxygen
 - Bacteria
- Proposed Listing
 - PAH
 - Dieldrin



Toxics

Arsenic Example

Not a load increase

Concentration \ll criteria $<$ meaningful

Actual change concentration $<$ criteria $<$ meaningful

No production of these pollutants

Legacy Pollutants

TMDL strategy unknown

Unlikely to influence TMDL strategy

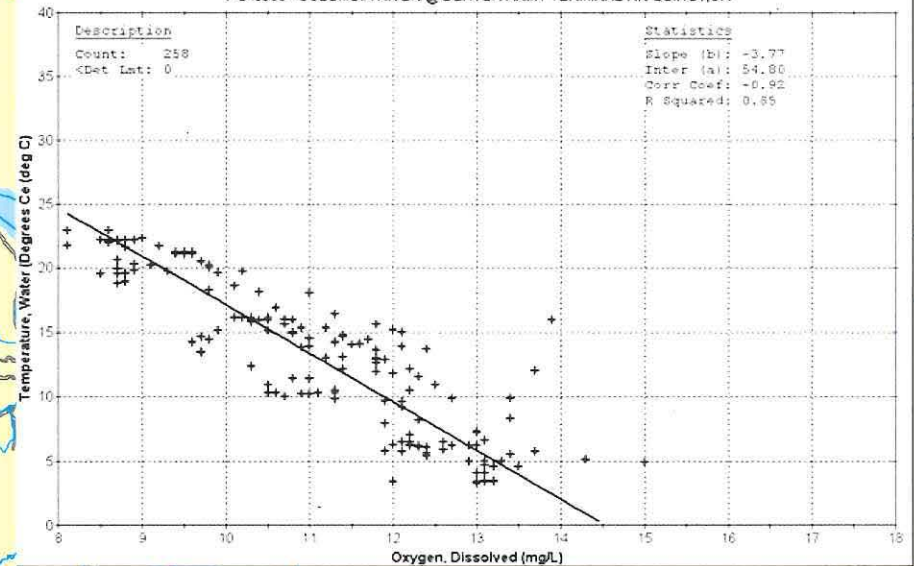
Use	Criteria	% Inc.
Fish	17.5	<0.2
Fish Water	2.2	<1.9
Drinking Water MCL	50000	<8E-5
Chronic Toxicity	2380000	<1.8E-5

Dissolved Oxygen / pH / Bacteria

- Not WQL DO in reach
- Not related to observed DO depression downstream
- Not WQL for pH in Reach
- Not related to Bacteria listing

COLUMBIA RIVER @ BEAVER ARMY TERMINAL NR QUINCY, OR

14246900 . COLUMBIA RIVER @ BEAVER ARMY TERMINAL NR QUINCY, OR



Coastal St. Helens Chemicals

0 8 16 24 32 40 Miles

Evaluation of Options

- Social Economic Benefit Significant
- Environmental Costs Difficult to quantify
 - Energy cost and impact of alternative sources of energy development
 - No liquid Discharge, truck traffic, landfill
 - Groundwater dilution still requires similar mixing zone area for chlorine
 - Heat Energy to a WQL stream
- Mitigation

Relative Cost of Options

Option	Total cost in \$1000	Energy	Relative Cost		Environmental Effects
			Cost	% return (3%)	
Proposed	1,163	111	1	0.3	No measurable impact outside MZ, No measurable impairment to use, Temperature increase theoretical risk
Heat Exchange	+	+	+		Reduce (eliminate) heat load) No risk outside of mz for chlorine
Mitigation	+ 100 est		1.1		No net heat load after mitigation effective, Improved WQ through mitigation
Groundwater mixing	\$2,812	202	2.4	0.7	Energy cost, dilution from groundwater No impairment outside MZ for chlorine
Land Application	\$5,956	111	5.1	1.4	Loss or change of land production Winter/spring mz for chlorine
Mechanical chilling	\$8,603	4748	7.4	2.1	Substantial parasitic energy loss
Zero liquid Discharge	\$53,575	13,333	46.1	11.8	Mining CaCl, landfill disposal, increased vehicle traffic, increased storm water runoff
Air Cooling	\$101,420	105120	87.8	21	Land Intensive. Parasitic energy cost Winter mz for chlorine

Anti Deg potential findings

- Positive overall Anti-Degradation Findings
 - No water quality standards violations
 - Beneficial Uses Protected
- Positive Specific Temperature Findings
 - Not impair TMDL ability meet criteria
 - No measurable use impairment 1F increase unlikely,
- Positive WQL Parameters
 - No load increase, not related
 - Concentration increase meaningless
- Value of Assimilative Capacity
 - No measurable decrease in Water Quality
 - Significant Social-Economic Benefits
 - Mitigation and companion heat exchange option – mitigation cost effective

Next Steps

- Complete Review and Analysis
- 2 Week applicant review
- Public Comment /Hearing period 10/16 – 11/25/02
- Respond to Comments 12 /15/02
- Draft EQC Report 11/08/02
- Final EQC Report 12/20/02
- EQC Findings 1/30/03
- Close public process anti-deg 2/03/03
- Finalize Permit 2/08/03

State of Oregon
Department of Environmental Quality

Memorandum

Date: September 10, 2002
To: Environmental Quality Commission
From: Stephanie Hallock, Director *S. Hallock*
Subject: Agenda Item E, Informational Item: Update on the Port of St. Helens Proposed National Pollutant Discharge Elimination System (NPDES) Permit for the Port Westward Project. October 3-4, 2002 EQC meeting

Purpose of Item The purpose of this item is to provide an update on the status of the Port of St. Helens proposed wastewater discharge permit for the Port Westward Project facilities and to outline future decisions the Commission will be asked to make. Following the Department's presentation, a panel of selected speakers will provide broader background on the proposed facilities and potential issues.

Background The Department provided an initial briefing to the Commission on the Port Westward Project on January 25, 2002. The project would construct two natural gas fired power plants and one ethanol production plant on land owned by the Port of St. Helens (Port) adjacent to the Columbia River near Clatskanie. The Port has proposed to act as the NPDES permittee for collection and discharge of treated wastewater to the Columbia River from the new facilities.

At a future meeting, the Commission will be asked to make anti-degradation findings that balance the socio/economic benefits and environmental impacts of the proposed facilities, based on Department recommendations. The Department will develop recommendations by applying an evaluation of available information to existing rules and guidance. The Commission's findings will establish the basis for several permit actions that will be considered by the Department.

Major Issues The anti-degradation policy prohibits degradation of water quality in some circumstances and provides for exception to this prohibition in others. Degradation of water quality is allowed, however, only after a systematic decision-making process considering many factors. These factors include:

- the classification of the waterbody as water quality limited, high quality water, or as an outstanding resource water. The Columbia River is water quality limited.
- the consideration of alternative treatments for the proposed activity.
- the comparison of economic and social benefits with environmental costs.

The anti-degradation policy also requires involvement of the public through direct notice and coordination with other government agencies. In this way, decisions to maintain or change current water quality are made only after a deliberate and inclusive process.

The proposed project is anticipated to provide significant social and economic benefits to northern Columbia County. Some of the reported benefits include:

- 300 construction jobs for up to 24 months for a total payroll of about \$24 million.
- 123 permanent jobs at the currently proposed plants for an annual payroll estimated at \$10 million.
- Over \$900 million in private and \$10 million in public investment.
- For every dollar spent, an additional 37 cents of economic activity generated through employee and business spending.
- Providing 20 percent of the County tax base by 2012.
- Over a 35 year period, approximately \$90 million in tax revenues accruing to the County.

Department staff are now preparing a permit evaluation report and anti-degradation recommendation for the proposed project. The proposed discharge would be a new discharge to a significant water quality limited stream; the data collection, analysis and evaluation is intensive. Part of this evaluation will be to determine whether or not there are measurable environmental impacts from the discharged waste load.

Status

Since the January 2002 meeting, the Department has received a permit application and additional supplemental technical reports. However, the Department has yet to receive critical information on substantial modifications to the application and consequently has not been able to finalize a draft of the permit.

At the January briefing, the Commission expressed an interest in hearing public comment on the proposed discharge. To accomplish this, the Department has organized a panel of interested stakeholders to provide a wide range of input on the issues related to the project and the anti-degradation findings that the Commission will act on at a future meeting.

In addition to the public comment received at the October meeting, the Department will provide an opportunity for broad public comment on both the proposed permit action and the anti-degradation findings that the Department will present to the Commission.

Next Steps

When a complete technical package is received from the applicant:

1. The Department will complete review and evaluation of the permit application within three months of receipt.
2. The Department will then draft permit requirements, a permit evaluation report, an anti-degradation review, and proposed anti-degradation findings within one month of completing the application review.
3. The Department will then schedule a public comment period on the proposed permit actions and on the anti-degradation findings recommended for the Commission. The public process will include a 45 day public comment period leading to a hearing, one month to evaluate public comment, and two months to prepare for Commission action. Overall, the public process will take four to five months;
4. Based on the Department's recommendations and public input, the Commission will make anti-degradation findings. The Department will incorporate these findings into its final permit action.
5. The Department will either approve or deny the permit, or modify the permit for reconsideration. Overall, final permit action would occur approximately nine months after receipt of a complete permit application.

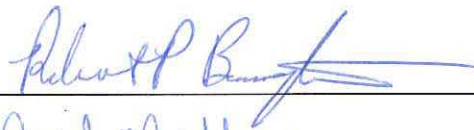
Agenda Item E, Informational Item: Port of St. Helens update
October 3-4, 2002 EQC Meeting
Page 4 of 4

Attachments Site facility map
 Proposed facility schematic

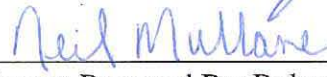
Available Upon Request Permit application and supporting documentation

Approved:

Section:



Division:



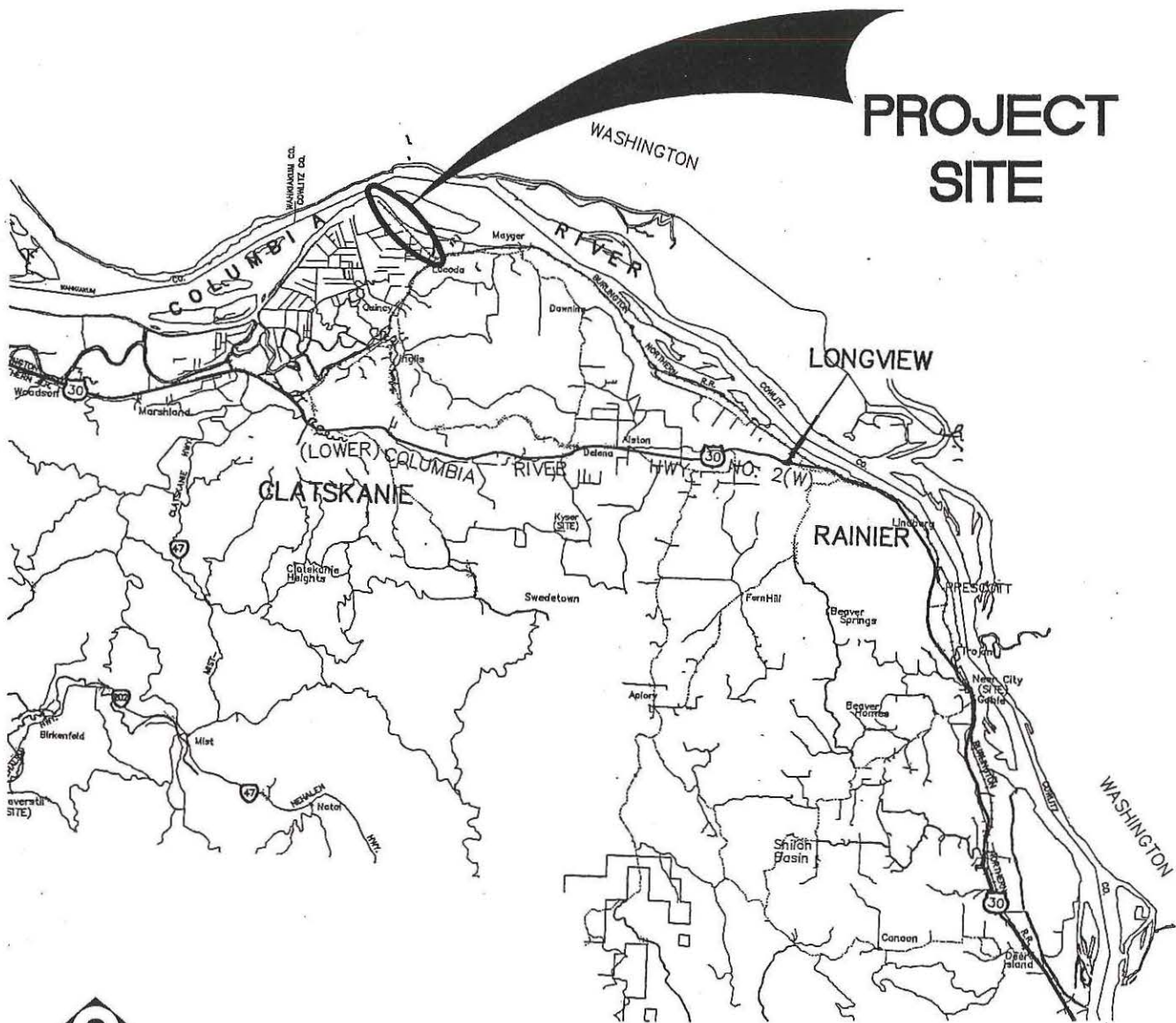
Report Prepared By: Robert Baumgartner
Phone: 229-5323

X

PORT OF ST. HELENS INDUSTRIAL OUTFALL

PORT WESTWARD, COLUMBIA COUNTY, OREGON

DECEMBER 2001




NO SCALE

Fig. 1

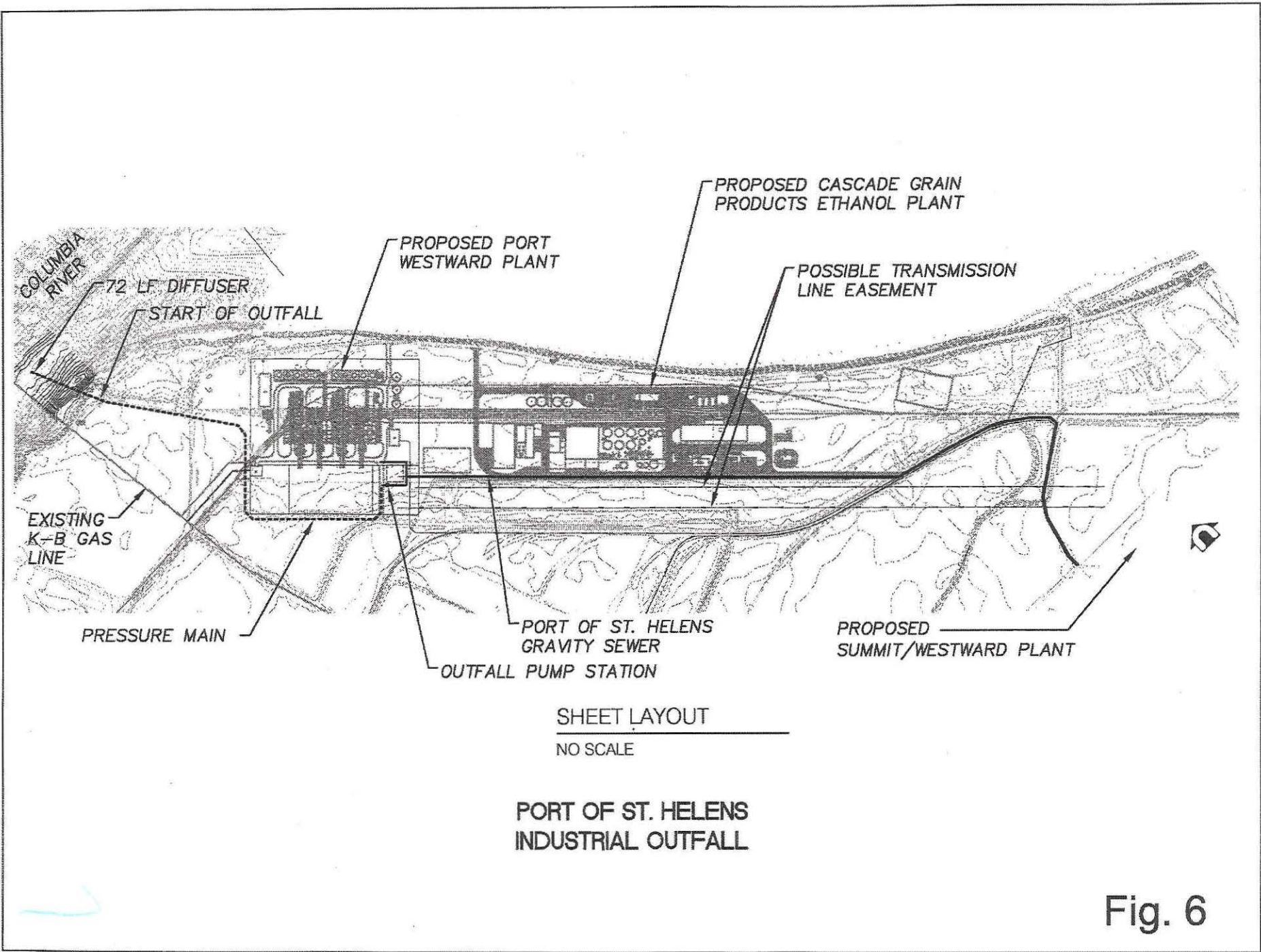





Fig. 6

Figure 2

Port of St. Helens Industrial Outfall NPDES Permit Application

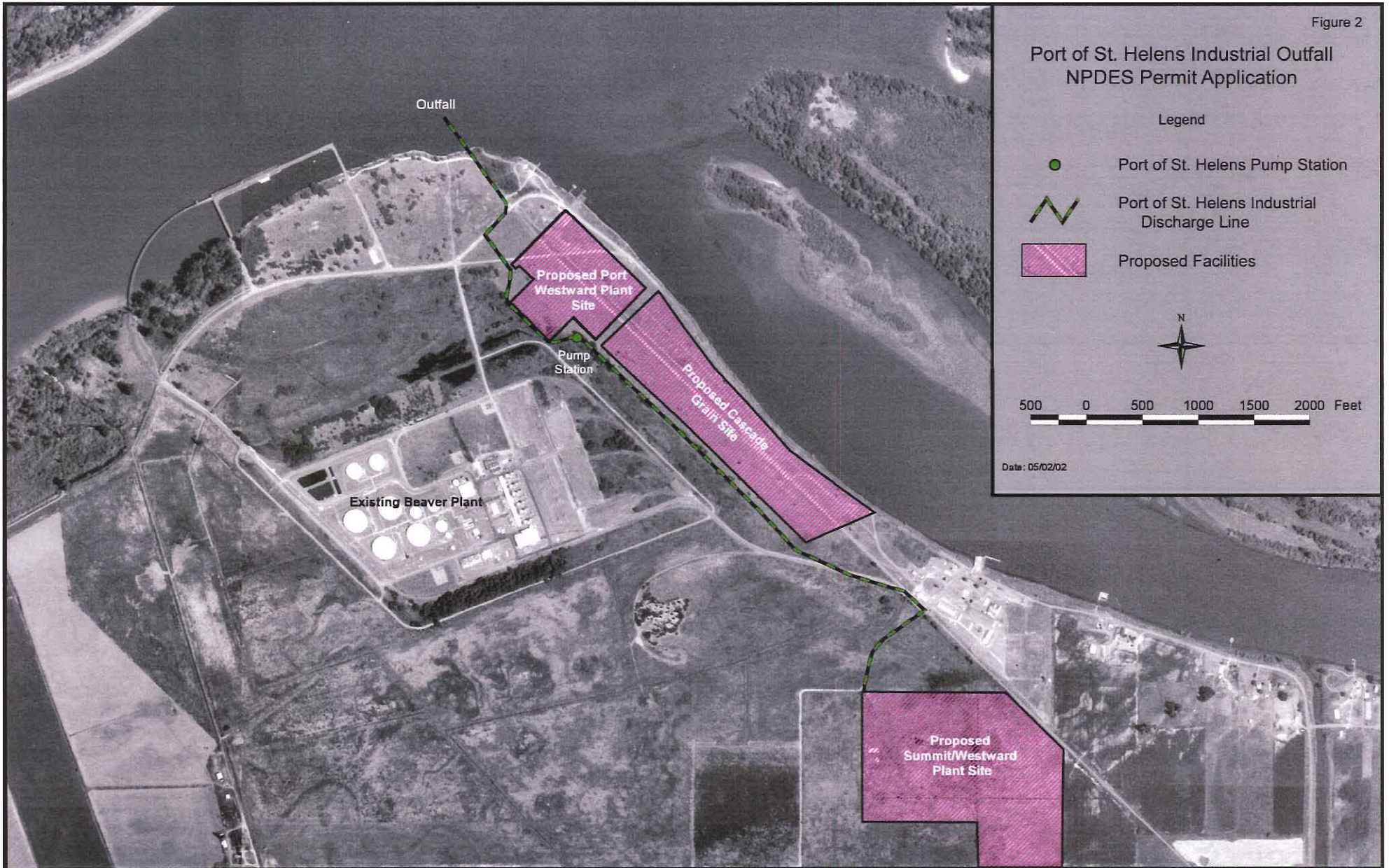
Legend

-  Port of St. Helens Pump Station
-  Port of St. Helens Industrial Discharge Line
-  Proposed Facilities



500 0 500 1000 1500 2000 Feet

Date: 05/02/02



39

Minutes are not final until approved by the Commission.

Environmental Quality Commission Minutes of the Three Hundredth and Fourth Meeting

**July 25-26, 2002
Regular Meeting¹**

The following Environmental Quality Commission (EQC) members were present for the regular meeting, held at the Department of Environmental Quality (DEQ) headquarters building, Room 3A, located at 811 S.W. Sixth Avenue, in Portland.

Melinda Eden, Chair
Tony Van Vliet, Vice Chair
Mark Reeve, Member
Harvey Bennett, Member
Deirdre Malarkey, Member

Also present were Stephanie Hallock, DEQ Director; Larry Knudsen, Oregon Department of Justice; and other DEQ staff.

Thursday, July 25, 2002

Before the regular meeting, the Environmental Quality Commission toured a DEQ monitoring site on Balch Creek in Northwest Portland. Mary Abrams, DEQ Laboratory Administrator, and Rick Hafele and Mike Mulvey, DEQ Water Quality scientists, led a macroinvertebrate sampling demonstration and discussed DEQ's biomonitoring and ambient monitoring programs with Commissioners. Following the tour, Commissioners held a working lunch with Ms. Abrams and Fenix Grange, DEQ Facilities Coordinator, to discuss the Department's efforts to locate a new lab facility.

At approximately 2:00 p.m., Chair Eden called the regular Commission meeting to order and agenda items were taken in the following order.

A. Contested Case No. WQ/M-NWR-00-010 regarding City of Scappoose

Larry Knudsen, Assistant Attorney General, introduced a contested case between DEQ and the City of Scappoose involving a proposed \$9,600 civil penalty for an alleged violation of the City's wastewater discharge permit. Mr. Knudsen explained that the alleged violation was for intentional submittal of false data on a discharge monitoring report on two occasions in December 1998. Mr. Knudsen summarized the findings of fact made by the Hearing Officer and asked Commissioners to declare any ex parte contacts or conflicts of interest regarding the case. All Commissioners declared they had no ex parte contacts or conflicts of interest. Christopher Rieve presented arguments to the Commission on behalf of the City of Scappoose. Jeff Bachman, Environmental Law Specialist, and Lynne Perry, Department of Justice, summarized arguments on behalf of the Department.

Commissioners discussed key issues in the case with Mr. Knudsen and the representatives of both parties. After deliberation, Commissioner Malarkey moved the Commission uphold the proposed order

¹ Staff reports and written material submitted at the meeting are made part of the record and available from DEQ, Office of the Director, 811 SW Sixth Avenue, Portland, Oregon 97204; phone: (503) 229-5990.

and civil penalty. Commissioner Reeve seconded the motion and it passed with four "yes" votes. Commissioner Bennett voted "no." The Commission asked Mr. Knudsen to prepare an order for the Director's signature on the Commission's behalf.

B. Contested Case No. WQ/OI-ER-01-065 regarding Brian Littleton, dba/Brian's Sewer & Septic Service

Larry Knudsen, Assistant Attorney General, introduced a contested case between DEQ and Brian Littleton, doing business as Brian's Sewer & Septic Service in the Klamath Falls area. Mr. Knudsen explained that the case involved a \$1,000 civil penalty for allegedly performing sewage disposal services without first obtaining a sewage disposal service license from DEQ. Mr. Knudsen summarized the findings of fact made by the Hearing Officer and asked Commissioners to declare any ex parte contacts or conflicts of interest regarding the case. All Commissioners declared they had no ex parte contacts or conflicts of interest. Dorothy Littleton presented arguments to the Commission on behalf of Brian Littleton. Bryan Smith and Les Carlough, Environmental Law Specialists, summarized arguments on behalf of the Department.

Commissioners discussed the facts of the case and debated issues. After consideration, Commissioner Malarkey moved the Commission uphold the proposed order and civil penalty. Commissioner Reeve seconded the motion and it passed with four "yes" votes. Commissioner Van Vliet voted "no." The Commission directed Mr. Knudsen to prepare an order for the Director's signature on the Commission's behalf.

C. Rule Adoption: Permanent Rules to Add Methane, Under Certain Conditions, to the List of Environmental Cleanup Hazardous Substances

Director Hallock introduced permanent rules to add methane, under certain conditions, to Oregon's list of hazardous substances. Without these rules, DEQ lacked the authority to review and approve, order, or investigate and control methane at historic solid waste landfills. Alan Kiphut, DEQ Cleanup Program Manager, explained that under certain conditions at past landfill sites, methane gas has the potential to build up in confined spaces and create a threat of explosion. To give DEQ management authority in such cases, the Commission passed a temporary rule in January 2002. Commissioners discussed DEQ's work with a stakeholder advisory committee since January to develop permanent rules to address the issue. Commissioner Bennett moved the Commission adopt the permanent rules. Commissioner Malarkey seconded the motion and it passed with five "yes" votes. Commissioner Van Vliet moved the Commission repeal the temporary rule upon the effective date of the permanent rules. Commissioner Malarkey seconded the motion and it passed with five "yes" votes.

D. Director's Dialogue

Commissioners discussed current events and issues involving the Department and State with Stephanie Hallock, DEQ Director. In addition, Director Hallock introduced Dick Pedersen, new DEQ Land Quality Division Administrator, who took the place of Acting Administrator David Rozell, and previous Administrator Paul Slyman.

E. Discussion Item: Preparation for Director's Performance Evaluation

In accordance with the Commission's process for evaluating the Director's performance, Chair Eden asked Director Hallock to prepare and submit a self-evaluation of her performance since becoming Director in November 2000. The Commission appointed Commissioner Van Vliet and Commissioner Bennett to serve as a subcommittee to prepare for the evaluation and solicit external input on the Commission's behalf. The Commission planned to conclude the evaluation by the end of the year.

Chair Eden recessed the meeting at approximately 5:25 p.m.

Friday, July 26, 2002²

The Commission held an executive session at 8:00 a.m., to consult with counsel concerning legal rights and duties with regard to current and potential litigation involving the Department. Executive session was held pursuant to ORS 192.660(1)(h).

At approximately 8:30 a.m., Chair Eden called the regular EQC meeting to order and agenda items were taken in the following order.

F. Approval of Minutes

Chair Eden corrected the spelling of Dick Pedersen's name on page 2 of draft minutes of the June 6-7, 2002, EQC meeting. Commissioner Reeve moved the Commission approve the minutes as corrected. Commissioner Malarkey seconded the motion and it passed with four "yes" votes.

G. Rule Adoption: Renewal of NPDES 1200-A, NPDES 1200-Z and WPCF 1000 General Permits

Mike Llewelyn, DEQ Water Quality Division Administrator, proposed renewal of three water quality general permits that together, apply to approximately 1,000 facilities for industrial storm water discharges or wastewater disposal at sand and gravel mining operations. DEQ issues general permits that apply to large groups of facilities with similar water discharge or pollution control systems. Kevin Masterson, DEQ Water Quality staff, described the three permits proposed for renewal in detail: (1) the National Pollutant Discharge Elimination System (NPDES) General Storm Water Discharge permit #1200-A, which covers industrial scale non-metallic mining, asphalt mix batch plants, and concrete batch plants with storm water runoff, (2) the NPDES General Storm Water Discharge permit #1200-Z, covering approximately 850 industrial facilities with storm water discharges, and (3) Water Pollution Control Facilities (WPCF) General Permit #1000, covering sand, gravel and other non-metallic mineral mining operations that dispose wastewater by recirculation, evaporation or controlled seepage, with no discharge to surface waters.

The Commission discussed the function of these permits, including associated monitoring requirements and key changes, with Mr. Llewelyn and Mr. Masterson. Commissioner Reeve moved the Commission renew the three permits in rule. Commissioner Malarkey seconded the motion and it passed with four "yes" votes.

H. Informational Item: Operation of Brine Reduction Area at the Umatilla Chemical Agent Disposal Facility

Chair Eden introduced a briefing for the Commission on issues surrounding the operation of the Brine Reduction Area (BRA) at the Umatilla Chemical Agent Disposal Facility (UMCDF) and the potential for off-site shipment of liquid brines and other wastewater. Mr. Gary I. Burke, Chairman of the Confederated Tribes of the Umatilla Indian Reservation (CTUIR), brought the issue to the Commission's attention in a May 8, 2002, letter. At this meeting, the Commission heard presentations from representatives of the Department, the CTUIR, the U.S. Army and Washington Demilitarization Company, and GASP (a Hermiston environmental group) on the issue, and discussed the status of the UMCDF with each party.

Wayne Thomas, DEQ Administrator of the Chemical Demilitarization Program, gave an update on the status of the UMCDF. Sue Oliver and Thomas Beam, DEQ Hazardous Waste policy and permit specialists, described the purpose and intended function of the BRA.

Armand Minthorn, CTUIR Board of Trustees Member, and Dr. Rod Skeen, CTUIR Chemical Engineer, expressed concerns over recent developments at the UMCDF and presented analysis of the effectiveness of the BRA.

Joseph Keating, on behalf of GASP, expressed concerns for operation of the BRA and the incineration facility.

² On July 26, Commissioner Van Vliet participated in the meeting by phone for items H, I and J only.

Don Barclay, UMCDF Site Project Manager, Dave Nylander, Washington Demilitarization Company Environmental Manager, and Robert Nelson, Umatilla Chemical Depot Environmental Protection Specialist, discussed the incineration facility and plans for using the BRA on behalf of the UMCDF permittees.

The Commission discussed its response to issues raised by the speakers and asked Mr. Thomas to draft a response letter from the Commission to the CTUIR for their review. Chair Eden thanked the Tribe for bringing their concerns to the Commission's attention and thanked presenters for their comments.

Public Forum

At approximately 11:30 a.m., Chair Eden asked whether anyone wished to make general comments to the Commission. George Ward, a consulting engineer and interested citizen, presented his ideas and analysis of operation of the Brine Reduction Area at the Umatilla Chemical Agent Disposal Facility.

I. Informational Item: Preview of New Air Toxics Rules

Andy Ginsburg, DEQ Air Quality Division Administrator, described the Department's work to create a new state program to reduce air toxics emissions, designed to supplement the federal air toxics program that DEQ has implemented since 1990. Mr. Ginsburg summarized development of the program over the past two years, in cooperation with a diverse stakeholder advisory committee. Sarah Armitage, DEQ Air Toxics specialist, explained that the state program would target urban air toxic emissions from mobile and various small sources to compliment the industrial focus of the federal program. Commissioners discussed the program with Mr. Ginsburg and Ms. Armitage, in preparation for considering adoption of program rules at the December 2002 EQC meeting.

J. Action Item: Response to Oregon Environmental Council Petition for Air Quality Rulemaking

Director Hallock introduced this item, explaining that on July 10, 2002, the Oregon Environmental Council (OEC) petitioned the Commission for permanent rulemaking to increase the regulation of mercury emissions to the air. Specifically, OEC petitioned to direct DEQ to require monitoring for mercury emissions and begin rulemaking to establish air emission limits for mercury, including Plant Site Emission Limits for facilities that discharge over one pound of mercury per year. Director Hallock described DEQ's priority and work to date to reduce the release of toxic chemicals, particularly mercury, to the environment. Chair Eden invited representatives from OEC, interested stakeholders and members of the public to comment on the petition.

Jeff Allen, OEC Executive Director, Laura Weiss, OEC Program Director, and Chris Rich, representing OEC, presented the rationale for the petition. Andy Ginsburg, DEQ Air Quality Administrator, explained the Department's reasons for recommending the Commission deny the permit, and summarized current plans for addressing the issues OEC raised. John Ledger, Associated Oregon Industries, expressed support for DEQ's toxic reduction approach and concern for OEC's request for rulemaking. Michael McColly, M.D., a public health physician and professor at the Oregon Health and Sciences University, expressed support for OEC's petition and the need for reducing all sources of mercury emissions. Rhett Lawrence, Oregon State Public Interest Research Group, provided written testimony in support of OEC's petition.

The Commission discussed the importance of making progress on reducing toxics to protect human health and the environment, as well as the complexity of the issue and DEQ's resource limitations. Commissioners also considered the difficulty of using individual regulatory mechanisms outside of a comprehensive approach that included stakeholder support. After deliberation, Commissioner Bennett moved the Commission deny the petition. Commissioner Malarkey seconded the motion and it passed with five "yes" votes. Chair Eden asked Mr. Knudsen to prepare an order for the Director's signature on the Commission's behalf. In addition, the Commission asked DEQ to respond in writing to OEC's recommendations that accompanied the petition, with the exception of OEC's comments on DEQ's water quality general permit rules. Director Hallock suggested the Department respond with details about the feasibility of OEC's recommendations, including resource limitations and necessary changes to agency

work, by the end of the year. The Commission agreed with the Director's suggestion, and thanked those who presented.

K. Informational Item: Revision of MOU between the Commission and Oregon Department of Agriculture for the Confined Animal Feeding Operations Permit Program

Mike Llewelyn, DEQ Water Quality Division Administrator, and Charles Craig, Oregon Department of Agriculture (ODA) Deputy Director, described the need to revise a Memorandum of Understanding (MOU) between the EQC and ODA for the Confined Animal Feeding Operation (CAFO) permit program. They explained that in 1993, the Oregon Legislature directed the Commission to enter a MOU with the ODA to transition the CAFO permit program from DEQ to ODA. The resulting 1995 MOU transferred the state Water Pollution Control Facilities permit program for CAFOs from DEQ to ODA. In 2001, the Legislature directed DEQ to transfer the National Pollutant Discharge Elimination System permit program for CAFOs to ODA as well, upon approval from the Environmental Protection Agency. Commissioners discussed plans for revising the existing MOU with Mr. Llewelyn, Mr. Craig and Director Hallock in preparation for making the changes at the October 2002 EQC meeting.

L. Commissioners' Reports

Commissioners gave no reports.

Chair Eden adjourned the meeting at approximately 2:40 p.m.

Minutes are not final until approved by the Commission.

Environmental Quality Commission Minutes of the Three Hundredth and Fifth Meeting

**September 6, 2002
Special Phone Meeting¹
2:00 p.m.**

The following Environmental Quality Commission (EQC) members were present for a special phone meeting, held at the Department of Environmental Quality (DEQ) headquarters building, Room 10A, located at 811 S.W. Sixth Avenue, in Portland.

Melinda Eden, Chair
Tony Van Vliet, Vice Chair
Mark Reeve, Member
Harvey Bennett, Member
Deirdre Malarkey, Member

Also present were Stephanie Hallock, DEQ Director; Larry Knudsen, Oregon Department of Justice; and other DEQ staff.

Friday, September 6, 2002

Chair Eden called the meeting to order at approximately 2:00 p.m. Agenda items were taken in the following order.

A. Action Item: Consideration of Pollution Control Facility Tax Credit Requests

Holly Schroeder, Acting DEQ Management Services Division Administrator, presented two Pollution Control Facility Tax Credit applications recommended for Commission approval. Maggie Vandehey, DEQ Tax Credit coordinator, described the applications from Shelton Turnbull Printers for equipment used in a material recovery process. Ms. Vandehey explained that the company would be able to use the credit on their 2002 Oregon tax return only if the Commission certified the facilities by the end of the company's tax year (September 30, 2002). Consideration of these applications was scheduled for the September 16-17, 2002, EQC meeting. The need for a special EQC meeting arose when the Commission changed its meeting date from September 16-17, to October 3-4, 2002. The Commission discussed the pollution control facilities with Ms. Schroeder and Ms. Vandehey. Commissioner Malarkey moved the Commission approve the applications as recommended by the Department. Commissioner Reeve seconded the motion and it passed with five "yes" votes.

B. Director's Dialogue

Director Hallock updated the Commission on the status of the state budget and DEQ's plan for reducing the agency's general fund budget as requested by the Governor. Director Hallock and Wayne Thomas, DEQ Administrator of the Chemical Demilitarization Program, spoke with Commissioners about recent events at the Umatilla Chemical Agent Disposal Facility (UMCDF). Director Hallock announced that the Department is proposing a modification of the Hazardous Waste Storage and Treatment Permit for the

¹ Staff reports and written material submitted at the meeting are made part of the record and available from DEQ, Office of the Director, 811 SW Sixth Avenue, Portland, Oregon 97204; phone: (503) 229-5990.

UMCDF to require the U.S. Army to process Pollution Abatement System (PAS) brines on-site using the Brine Reduction Area (BRA). Director Hallock explained that the proposed modification would provide the Department and the Commission the opportunity to fully evaluate the issue and reach a decision concerning the management of the brine wastes. Commissioners discussed the proposed permit modification with Director Hallock and Mr. Thomas.

Chair Eden adjourned the public meeting at approximately 3:00 p.m.

Following the regular meeting, the Commission met in executive session as allowed by ORS 192.660(1)(i) to review and evaluate the employment-related performance of the Director pursuant to standards, criteria and policy directives previously adopted by the Commission.

Chair Eden adjourned the executive session at approximately 4:00 p.m.

State of Oregon
Department of Environmental Quality

Memorandum

Date: September 10, 2002
To: Environmental Quality Commission
From: Stephanie Hallock, Director *S. Hallock*
Subject: Agenda Item H, Action Item: Tax Credit Consideration
October 4, 2002 EQC Meeting

Proposed Action Commission decision on DEQ's analysis and recommendations on Pollution Control Facilities Tax Credit applications. Attachment A summarizes all applications.

Key Issues The recommendations to approve certification of the facilities presented in this Staff Report would not change regardless of the adoption of the proposed rule presented in Agenda Item I.

Agenda Item I, Rule Adoption: Permanent Pollution Control Facilities Tax Credit Rule, clarifies the filing period and the 50% maximum tax credit percentage provided "safe harbor" treatment under the 2001 law¹. The 2001 law reduced the filing period from two years to one year; and the maximum tax credit percentage ranging from the original 50% to a tiered schedule starting with 35% as the maximum.

This Staff Report does not present any applications that could be misinterpreted under the 2001 law; all applications were submitted within the one-year filing period and the maximum tax credit percentages are clearly provided. The Department recommends the Environmental Quality Commission (EQC) certify two applications for the 50% maximum tax credit because construction commenced before January 1, 2001²; and certify the remaining approvals for the 35% maximum because construction commenced after December 31, 2001³ and the facilities cost less than \$200,000.

¹ ORS 468.173 (1), "If the facility is certified under ORS 468.155 to 468.190 (1999 Edition) ..., 50 percent."

² ORS 468.173 (1), "...or if construction or installation of the facility is commenced prior to January 1, 2001, and completed prior to January 1, 2004, 50 percent."

³ ORS 468.173 (3)(f), "If certified pursuant to application for certification filed on or after January 1, 2002, 35 percent if: ...The certified cost of the facility does not exceed \$200,000;"

EQC Action Alternatives Any application may be postponed to a future meeting if the Commission:

- Requires the Department or the applicant to provide additional information; or
- Makes a determination different from the Department's recommendation and that determination may have an adverse effect on the applicant.

Department Recommendation The Department recommends the Commission:

- **Approve** certification of the facilities represented in Attachment B;
- **Deny** certification of the facilities represented in Attachment C; and
- **Transfer** 18 certificates from Truax Harris Energy LLC to Cascade Energy LLC, in Attachment D.

Attachments

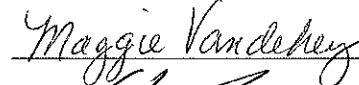
- A. Summary & Recommendations
- B. Approvals
- C. Denials
- D. Transfers

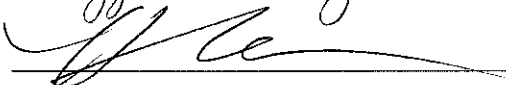
Available Upon Request 1. ORS 468.150 to 468.190 & OAR 340-016-0005 to 340-016-0080

Approved:

Section:

Division:





Report Prepared By: Maggie Vandehey
Phone: 503-229-6878

Attachment A

Summary & Recommendations

Approve

App #	Applicant	Claimed Cost	Recommended Cost	+/-	% Allocable	Maximum Tax Credit	GF Liability	Type
5782	Willamette Industries, Inc.	\$ 68,562	\$ 68,562	\$ 0	100%	50%	\$ 34,281	Mat. Recovery: SW
6144	Susan Schechter	567	567	0	100%	35%	198	NPS: Chipper
6145	Treecology	6,000	6,000	0	100%	35%	2,100	NPS: Chipper
6146	Edward Smith	596	596	0	100%	35%	209	NPS: Chipper
6151	Container Recovery, Inc.	9,996	9,996	0	100%	35%	3,499	Mat. Recovery: SW
6153	Container Recovery, Inc.	24,000	24,000	0	100%	35%	8,400	Mat. Recovery: SW
6156	Container Recovery, Inc.	9,786	9,786	0	100%	35%	3,425	Mat. Recovery: SW
6157	Container Recovery, Inc.	8,000	8,000	0	100%	35%	2,800	Mat. Recovery: SW
6168	Eric Johnson	1,399	1,399	0	100%	35%	490	NPS: Chipper
6171	Richard H. Wendland	2,469	2,469	0	100%	35%	864	NPS: Chipper
6173	William E. Davie	2,099	2,099	0	100%	35%	735	NPS: Chipper
6174	Patrick D. Malone	1,599	1,599	0	100%	35%	560	NPS: Chipper
6182	Darrell W. Greenwood	596	596	0	100%	35%	209	NPS: Chipper
6183	David S. Bogden	2,450	2,450	0	100%	35%	858	NPS: Chipper
6184	Garbarino Disp. & Recycling	2,468	2,468	0	100%	35%	864	Mat. Recovery: SW
6186	John W. LeGros	679	679	0	100%	35%	238	NPS: Chipper
6189	Larry W. Fulkerson	22,900	22,900	0	100%	35%	8,015	NPS: Chipper
6191	Staton Companies	23,630	22,842	(788)	100%	35%	8,271	Mat. Recovery: SW
6192	Charles E. Hiles	1,499	1,499	0	100%	35%	525	NPS: Chipper
6193	Daniel E. Beasley	1,910	1,910	0	100%	35%	669	NPS: Chipper
6194	Mary A. West	630	630	0	100%	35%	221	NPS: Chipper
6195	Jan Thornagle	2,875	2,875	0	100%	35%	1,006	NPS: Chipper
6196	V&S Log Express, Inc.	2,950	2,950	0	100%	35%	1,033	NPS: Chipper
6198	Kurt Zarder	567	567	0	100%	35%	198	NPS: Chipper
6201	George Oja	2,429	2,429	0	100%	35%	850	NPS: Chipper

App #	Applicant	Claimed Cost	Recommended Cost	Diff.	% Allocable	Maximum Tax Credit	GF Liability	
6203	Gerald R. Adams	3,000	3,000	0	100%	35%	1,050	NPS: Chipper
6205	Ralph S. Thomas	1,450	1,450	0	100%	35%	508	NPS: Chipper
6211	Salem Clock Shop	2,099	2,099	0	100%	35%	735	NPS: Chipper
6212	Kenneth C. Hill	3,130	3,130	0	100%	35%	1,096	NPS: Chipper
6213	V. Joan Jeffers	1,599	1,599	0	100%	35%	560	NPS: Chipper
6216	Jack Dongelewic	1,799	1,799	0	100%	35%	630	NPS: Chipper
6219*	Portland General Electric Co.	45,894	45,894	0	100%	50%	22,947	Water
6228	JoAnn M. Hilton	999	999	0	100%	35%	350	NPS: Chipper
6230	Glen A. Mick	2,450	2,450	0	100%	35%	858	NPS: Chipper
34 Apps.	Sum	\$ 263,076	\$ 262,288	\$ (788)			\$ 109,245	
	Average	\$ 7,738	\$ 7,714				\$ 3,213	
	Minimum	\$ 567	\$ 567				\$ 198	
	Maximum	68,562	\$ 68,562				\$ 34,281	
	* Replaces a previously certified facility							

Deny

5850	Leo Gentry Wholesale Nursery, Inc.	\$ -	\$ 21,611	\$ (21,611)				Mat. Recovery: Used Oil
	Ineligible Facility: material recovered for heat content							

Transfer

		Certificate Numbers						
	From: Truax Harris Energy Co.	3388	3413	3720				Water/Air: UST/AST
	To: Cascade Energy LLC	3407	3540	3721				
		3408	3551	3862				
	18 Certificates	3409	3552	4258				
		3411	3684	4417				
		3412	3719	4420				

Attachment B

Approvals

The department recommends the Environmental Quality Commission (EQC) approve certification of the **34** applications presented in this attachment. The department based its recommendations on the evidence in each application record that clearly supports certification under the Pollution Control Facilities Tax Credit regulations. The analysis of each application is presented in the attached Review Reports listed by application number under three categories:

- 1) Material Recovery;
- 2) Nonpoint Source Pollution Control Facilities: Wood Chippers; and
- 3) Water Pollution Control Facilities.

NOTE:

- There are no applications presented for preliminary certification.
- The recommended facility cost on one application is less than the amount the applicant claimed on their application. (Application number 6191)
- The percentage of the facility cost allocable to pollution control is 100% for all facilities presented for approval.
- Two facilities are eligible for the 50% maximum credit. (Applications numbered 5782 and 6219) The remaining 32 are eligible for the 35% maximum tax credit.
- One facility replaces a previously certified facility. (Application number 6219)

Material Recovery Facilities

The department recommends the Commission approve 7 material recovery facilities for certification as pollution control facilities. The material recovery facilities in this section are eligible for the pollution control facilities tax credit because they have a pollution control purpose and the control is accomplished as required by ORS 468.155 (1)(b)(D) described below.

1. The facilities have the **sole purpose** of reducing or eliminating a substantial quantity of **solid waste**.
2. The facilities reduce or eliminate solid waste through a material recovery process. These processes obtain useful material from solid waste as defined in ORS 459.005. They produce an end product that has a real economic value that is competitive with an end product produced in another state.
3. The end products are produced by mechanical processing, chemical processing; or through the production, processing, pre-segregation, or use of materials that:
 - a. Have useful chemical or physical properties and that may be used for the same or other purposes; or
 - b. May be used in the same kind of application as its prior use without change in identity.

The department recommends the EQC certify the facilities summarized below and represented on the attached Review Reports.

App #	Applicant	Facility Cost	% Allocable	Maximum Tax Credit	EQC Action
5782	Willamette Industries, Inc.	\$68,562	100%	50%	
6151	Container Recovery, Inc.	9,996	100%	35%	
6153	Container Recovery, Inc.	24,000	100%	35%	
6156	Container Recovery, Inc.	9,786	100%	35%	
6157	Container Recovery, Inc.	8,000	100%	35%	
6184	Garbarino Disp. & Recycling Svc., Inc.	2,468	100%	35%	
6191	Staton Companies	22,842	100%	35%	

7 Apps

Sum: \$145,654
Average: \$20,808
Minimum: \$2,468
Maximum: \$68,562



State of Oregon
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Directors	
Recommendation:	Approve
Applicant	Willamette Industries, Inc.
Application No.	5782
Facility Cost	\$68,562
Percentage Allocable	100%
Maximum Tax Credit	50%
Useful Life	7 years

Tax Credit Review Report

Pollution Control Facility: Material Recovery

Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0080

Applicant Identification

Organized As: **C Corp**

Business: **Production of corrugated
shipping containers.**

Taxpayer ID: **93-0312940**

The applicant's address is:

**1300 SW Fifth Avenue Suite 3800
Portland, OR 97201**

Facility Identification

The certificate will identify the facility as:

**Maren Automatic Tie Baler
Model 203-103 IT 3040
Serial # 200043**

The applicant is the owner and operator of the
facility located at:

**Portland Corrugated
7098 North Marine Drive
Portland, OR 97203**

Technical Information

The applicant claimed an automatic tie baler at the Portland Corrugated location. Waste from an overhead cyclone is processed through the facility where it is baled, tied, weighed and discharged as finished waste paper bale. The baler processes the waste into a high density form of approximately 1400 pounds per bale. The baled material is suitable for domestic and export markets. The use of the facility in recycling the waste reduces the dependence on timber for the manufacture of paperboard products by utilizing reclaimed fibers. The process avoids disposing of approximately 4,000 tons of waste per year into landfills.

Eligibility

- ORS 468.155 (1)(a)(B) The **sole purpose** of the new **equipment** is to prevent, control, or reduce a substantial quantity of **solid waste**.
- ORS 468.155 (3)(e) **Replacement:** The facility replaced a baler that was **not** previously certified.
- ORS 468.155 (1)(b)(D) This equipment is used to collect source-separated recyclable material and is part of a **material recovery process** that obtains useful material from material that would otherwise be solid waste as defined in ORS 459.005.
- ORS 468.173(1) The maximum tax credit available to the applicant is **50%** because construction of the facility commenced prior to January 1, 2002.

Timeliness of Application

The application was submitted within the two-year filing period of the 1999 edition and **the one-year filing period of the 2001 edition** of ORS 468.165 (6).

<i>Construction Started</i>	07/14/2000
<i>Construction Completed</i>	10/31/2000
<i>Facility Placed into Operation</i>	10/31/2000
<i>Application Received</i>	10/25/2001

Facility Cost

Claimed Cost	<u>\$68,562</u>
Eligible Cost	\$68,562

Copies of invoices substantiated the claimed facility cost.

Facility Cost Allocable to Pollution Control

The factors listed below were considered in deteminig that **100%** of the facility cost is allocable to pollution control.

<u>Factor</u>	<u>Applied to This Facility</u>
ORS 468.190(1)(a) Salable or Usable Commodity	Recyclable materials are subsequently made into a salable and usable commodity.
ORS 468.190(1)(b) Return on Investment	The useful life of the facility used for the return on investment consideration is 7 years. The portion of cost allocable to pollution control is 100% when calculated according to rule.
ORS 468.190(1)(c) Alternative Methods	No alternative investigated.
ORS 468.190(1)(d) Savings or Increase in Costs	No savings or increases in costs were identified.
ORS 468.190(1)(e) Other Relevant Factors	No other relevant factors.

Compliance and Other Tax Credits

The applicant states that the facility is in compliance with Department rules and statutes and with EQC orders. No DEQ permits have been issued to this facility. The EQC has not issued any tax credits to the applicant at this site.

Reviewers: Barrett MacDougall, DEQ



State of Oregon
Department of
Environmental
Quality

Tax Credit Review Report

Pollution Control Facility: Material Recovery

Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0080

Applicant Identification

Organized As: **C Corp**

Business: **Collection and processing of
recyclable beverage
containers**

Taxpayer ID: **93-0961383**

The applicant's address is:

**3900 NW Yeon Avenue
Portland, OR 97210**

Technical Information

The applicant claimed one reverse-vending machine used to redeem recyclable beverage containers directly from Haggens retail customers. The applicant removes the recycled containers from the machines and delivers them to recycling mills, where they are converted into products of real economic value.

Eligibility

ORS 468.155 The **sole purpose** of the new **equipment** is to prevent, control, or reduce a
(1)(a)(A) substantial quantity of **solid waste**.

ORS 468.155 **Replacement:** The new equipment did **not** replace any previously certified
(3)(e) equipment.

Directors	
Recommendation:	Approve
Applicant	Container Recovery, Inc.
Application No.	6151
Facility Cost	\$9,996
Percentage Allocable	100%
Maximum Tax Credit	35%
Useful Life	5 years

Facility Identification

The certificate will identify the facility as:

**One Envipco Model CF1500 reverse
vending machine, Serial # 051307**

The applicant is the Owner/Operator of the
facility located at:

**Haggens Tanasbourne
18000 NW Evergreen Parkway
Beaverton, OR 97006**

ORS 468.155 (1)(b)(D) This equipment is used to collect recyclable material and is part of a **material recovery process** that obtains useful material from material that would otherwise be solid waste as defined in ORS 459.005.

ORS 468.173(3) The maximum tax credit available to the applicant is **35%** because construction of the facility commenced after January 1, 2002. Material recovery facilities are specifically listed under the maximum 35% tax credit.

Timeliness of Application

The application was filed within the 1-year filing period of the 2001 edition of ORS 468.165 (6).

<i>Construction Started</i>	03/04/2002
<i>Construction Completed</i>	03/05/2002
<i>Facility Placed into Operation</i>	03/05/2002
<i>Application Received</i>	05/13/2002

Facility Cost

Claimed Cost	<u>\$9,996</u>
Eligible Cost	\$9,996

Copies of invoices substantiated the claimed facility cost.

Facility Cost Allocable to Pollution Control

The only factor used in determining that 100% of the claimed facility cost is allocable to pollution control is the percentage of time the facility is used for pollution control. ORS 468.190 (3)

Compliance and Other Tax Credits

The applicant states that the facility is in compliance with Department rules and statutes and with EQC orders. There were no DEQ permits issued to this facility. The EQC previously issued four tax credit certificates to Container Recovery, Inc.

Reviewers: Maggie Vandehey, DEQ



State of Oregon
Department of
Environmental
Quality

Tax Credit Review Report

Pollution Control Facility: Material Recovery

Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0080

Applicant Identification

Organized As: C Corp

Business: **Collection and processing of
recyclable beverage
containers**

Taxpayer ID: **93-0961383**

The applicant's address is:

**3900 NW Yeon Avenue
Portland, OR 97210**

Technical Information

The applicant claimed three reverse-vending machines used to redeem recyclable beverage containers directly from Safeway's retail customers. The applicant removes the recycled containers from the machines and delivers them to recycling mills, where they are converted into products of real economic value.

Eligibility

ORS 468.155 The **sole purpose** of the new **equipment** is to prevent, control, or reduce a
(1)(a)(A) substantial quantity of **solid waste**.

Directors	
Recommendation:	Approve
Applicant	Container Recovery, Inc.
Application No.	6153
Facility Cost	\$24,000
Percentage Allocable	100%
Maximum Tax Credit	35%
Useful Life	5 years

Facility Identification

The certificate will identify the facility as:

**One Envipco Model CFP 1500 reverse
vending machine, Serial # 051065;**

**Two Envipco Model CFG 1500 reverse
vending machines, Serial numbers 040559
and 040876**

The applicant is the Owner/Operator of the
facility located at:

**Safeway #1523
4515 SE Woodstock
Portland, OR 97206**

ORS 468.155 **Replacement:** The new equipment did **not** replace any previously certified
(3)(e) equipment.

ORS 468.155 This equipment is used to collect recyclable material and is part of a **material**
(1)(b)(D) **recovery process** that obtains useful material from material that would otherwise be
solid waste as defined in ORS 459.005.

ORS 468.173(3) The maximum tax credit available to the applicant is **35%** because construction of
the facility commenced after January 1, 2002. Material recovery facilities are
specifically listed under the maximum 35% tax credit.

Timeliness of Application

The application was filed within the 1-
year filing period of the 2001 edition of
ORS 468.165 (6).

<i>Construction Started</i>	01/13/2002
<i>Construction Completed</i>	01/14/2002
<i>Facility Placed into Operation</i>	01/14/2002
<i>Application Received</i>	05/13/2002

Facility Cost

Claimed Cost	<u>\$24,000</u>
Eligible Cost	\$24,000

Copies of invoices substantiated the claimed facility cost.

Facility Cost Allocable to Pollution Control

The only factor used in determining that 100% of the claimed facility cost is allocable to pollution
control is the percentage of time the facility is used for pollution control. ORS 468.190 (3)

Compliance and Other Tax Credits

The applicant states that the facility is in compliance with Department rules and statutes and with EQC
orders. There were no DEQ permits issued to this facility. The EQC previously issued four tax credit
certificates to Container Recovery, Inc.

Reviewers: Maggie Vandehey, DEQ



State of Oregon
Department of
Environmental
Quality

Tax Credit Review Report

Pollution Control Facility: Material Recovery

Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0080

Applicant Identification

Organized As: **C Corp**

Business: **Collection and processing of
recyclable beverage
containers**

Taxpayer ID: **93-0961383**

The applicant's address is:

**3900 NW Yeon Avenue
Portland, OR 97210**

Technical Information

The applicant claimed one reverse-vending machine used to redeem recyclable beverage containers directly from Safeway's retail customers. The applicant removes the recycled containers from the machines and delivers them to recycling mills, where they are converted into products of real economic value.

Eligibility

ORS 468.155 (1)(a)(A) The **sole purpose** of the new **equipment** is to prevent, control, or reduce a substantial quantity of **solid waste**.

ORS 468.155 (3)(e) **Replacement:** The new equipment did **not** replace any previously certified equipment.

Directors	
Recommendation:	Approve
Applicant	Container Recovery, Inc.
Application No.	6156
Facility Cost	\$9,786
Percentage Allocable	100%
Maximum Tax Credit	35%
Useful Life	5 years

Facility Identification

The certificate will identify the facility as:

**One Envipco Model CFM 1500 reverse
vending machine, Serial # 31413**

The applicant is the Owner/Operator of the facility located at:

**Safeway #1612
1100 NE Broadway
Portland, OR 97232**

ORS 468.155 (1)(b)(D) This equipment is used to collect recyclable material and is part of a **material recovery process** that obtains useful material from material that would otherwise be solid waste as defined in ORS 459.005.

ORS 468.173(3) The maximum tax credit available to the applicant is **35%** because construction of commenced after January 1, 2002. Material recovery facilities are specifically listed under the maximum 35% tax credit.

Timeliness of Application

The application was filed within 1-year filing period of the 2001 edition of ORS 468.165 (6).

<i>Construction Started</i>	01/14/2002
<i>Construction Completed</i>	01/15/2002
<i>Facility Placed into Operation</i>	01/15/2002
<i>Application Received</i>	05/13/2002

Facility Cost

Claimed Cost	<u>\$9,786</u>
Eligible Cost	\$9,786

Copies of invoices substantiated the claimed facility cost.

Facility Cost Allocable to Pollution Control

The only factor used in determining that 100% of the claimed facility cost is allocable to pollution control is the percentage of time the facility is used for pollution control. ORS 468.190 (3)

Compliance and Other Tax Credits

The applicant states that the facility is in compliance with Department rules and statutes and with EQC orders. There were no DEQ permits issued to this facility. The EQC previously issued four tax credit certificates to Container Recovery, Inc.

Reviewers: Maggie Vandehey, DEQ



State of Oregon
Department of
Environmental
Quality

Tax Credit Review Report

Pollution Control Facility: Material Recovery

Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0080

Applicant Identification

Organized As: **C Corp**

Business: **Collection and processing of
recyclable beverage
containers**

Taxpayer ID: **93-0961383**

The applicant's address is:

**3900 NW Yeon Avenue
Portland, OR 97210**

Technical Information

The applicant claimed one reverse-vending machine used to redeem recyclable beverage containers directly from Safeway's retail customers. The applicant removes the recycled containers from the machines and delivers them to recycling mills, where they are converted into products of real economic value.

Eligibility

ORS 468.155 (1)(a)(A) The **sole purpose** of the new **equipment** is to prevent, control, or reduce a substantial quantity of **solid waste**.

ORS 468.155 (3)(e) **Replacement:** The new equipment did **not** replace any previously certified equipment.

Directors	
Recommendation:	Approve
Applicant	Container Recovery, Inc.
Application No.	6157
Facility Cost	\$8,000
Percentage Allocable	100%
Maximum Tax Credit	35%
Useful Life	5 years

Facility Identification

The certificate will identify the facility as:

**One Envipco Model CFP 1500 reverse
vending machine, Serial # 050859**

The applicant is the Owner/Operator of the facility located at:

**Safeway #1710
1740 Main Street
Sweet Home, OR 97386**

ORS 468.155 (1)(b)(D) This equipment is used to collect recyclable material and is part of a **material recovery process** that obtains useful material from material that would otherwise be solid waste as defined in ORS 459.005.

ORS 468.173(3) The maximum tax credit available to the applicant is **35%** because construction of the facility commenced after January 1, 2002. Material recovery facilities are specifically listed under the maximum 35% tax credit.

Timeliness of Application

The application was filed within the 1-year filing period of the 2001 edition of ORS 468.165 (6).

<i>Construction Started</i>	02/21/2002
<i>Construction Completed</i>	02/22/2002
<i>Facility Placed into Operation</i>	02/22/2002
<i>Application Received</i>	05/13/2002

Facility Cost

Claimed Cost	<u>\$8,000</u>
Eligible Cost	\$8,000

Copies of invoices substantiated the claimed facility cost.

Facility Cost Allocable to Pollution Control

The only factor used in determining that 100% of the claimed facility cost is allocable to pollution control is the percentage of time the facility is used for pollution control. ORS 468.190 (3)

Compliance and Other Tax Credits

The applicant states that the facility is in compliance with Department rules and statutes and with EQC orders. There were no DEQ permits issued to this facility. The EQC previously issued four tax credit certificates to Container Recovery, Inc.

Reviewers: Maggie Vandehey, DEQ



State of Oregon
Department of
Environmental
Quality

Tax Credit Review Report

Pollution Control Facility: Material Recovery

Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0080

Applicant Identification

Organized As: **S Corp**

Business: **Recycling
recovery/collection**

Taxpayer ID: **93-0563390**

The applicant's address is:

**PO Box 250
North Plains, OR 97133**

Technical Information

The applicant claimed four recycling containers used to collect recyclable materials from multi-family dwellings. The applicant collects the recyclable material and delivers it to a processing facility for additional sorting and subsequent shipment to recycling mills. The material is converted into products of real economic value at the recycling mills.

Eligibility

ORS 468.155 (1)(a)(A) The **sole purpose** of the **new equipment** is to prevent, control, or reduce a substantial quantity of **solid waste**.

ORS 468.155 (3)(e) **Replacement:** The new equipment did **not** replace previously certified equipment.

Directors	
Recommendation:	Approve
Applicant	Garbarino Disposal & Recycling Service
Application No.	6184
Facility Cost	\$2,468
Percentage Allocable	100%
Maximum Tax Credit	35%
Useful Life	3 years

Facility Identification

The certificate will identify the facility as:

**Four multi-family recycling containers,
Model ZCUS00066, Serial numbers
176629-176632**

The applicant is the Owner/Operator of the facility located at:

**30966 NW Hillcrest
North Plains, OR 97133**

ORS 468.155 (1)(b)(D) This equipment is used to collect source-separated recyclable material and is part of a **material recovery process** that obtains useful material from material that would otherwise be solid waste as defined in ORS 459.005.

ORS 468.173(3) The maximum tax credit available to the applicant is **35%** because the containers were purchased after January 1, 2002. Material recovery facilities are specifically listed under the maximum 35% tax credit.

Timeliness of Application

The application was submitted within the 1-year filing period of the 2001 edition of ORS 468.165 (6).

<i>Construction Started</i>	05/30/2002
<i>Construction Completed</i>	06/07/2002
<i>Facility Placed into Operation</i>	06/07/2002
<i>Application Received</i>	06/11/2002

Facility Cost

Claimed Cost	<u>\$2,468</u>
Eligible Cost	\$2,468

A copy of the invoice substantiated the claimed facility cost.

Facility Cost Allocable to Pollution Control

The only factor used in determining that 100% of the claimed facility cost is allocable to pollution control is the percentage of time the facility is used for pollution control. ORS 468.190 (3)

Compliance and Other Tax Credits

The applicant states that the facility is in compliance with Department rules and statutes and with EQC orders. There were no DEQ permits issued to this facility. The EQC issued three material recovery certificates to Garbarino Disposal & Recycling Service, Inc.

Reviewer: Maggie Vandehey, DEQ



State of Oregon
Department of
Environmental
Quality

Tax Credit Review Report

Pollution Control Facility: Material Recovery

Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0080

Applicant Identification

Organized As: **S Corp**

Business: **Demolition contractor**

Taxpayer ID: **93-0609882**

The applicant's address is:

**PO Box 7515
Eugene, OR 97401**

Technical Information

The applicant claimed a 230 volt, 42 amp magnet attachment for their existing Komatsu 300 backhoe. The applicant also claimed a 10 kilowatt system needed to operate the magnet with the backhoe; it included a generator, hydraulics, controller and controls. The magnet is used to remove all metal debris from demolition sites. The applicant hand picked metal from other demolition debris prior to purchasing the magnet. This resulted in small or missed pieces of metal being sent to the landfill. The applicant estimates a 10% to 15% increase in the recovery rate with the use of the magnet. The recovered metal is recycled into products of real economic value.

Eligibility

ORS 468.155 The **sole purpose** of the **new equipment** is to prevent, control, or reduce a
(1)(a)(A) substantial quantity of **solid waste**.

Directors	
Recommendation:	Approve-Reduced Cost
Applicant	Staton Companies
Application No.	6191
Facility Cost	\$22,842
Percentage Allocable	100%
Maximum Tax Credit	35%
Useful Life	4 years

Facility Identification

The certificate will identify the facility as:

Walker 48" magnet, Model 48LM 93676-3199, Serial # 19382/2/15/02; and a 10 kilowatt system.

The applicant is the Owner/Operator of the facility located at:

**85386 Highway 99 South
Eugene, OR 97405**

ORS 468.155 **Replacement:** The new equipment did **not** replace any previously certified
(3)(e) equipment.

ORS 468.155 This equipment is part of a **material recovery process** that obtains useful material
(1)(b)(D) from material that would otherwise be solid waste as defined in ORS 459.005.

ORS 468.173(3) The maximum tax credit available to the applicant is **35%** because the containers
were purchased after January 1, 2002. Material recovery facilities are specifically
listed under the maximum 35% tax credit.

Timeliness of Application

The application was submitted within the
one-year filing period of the 2001 edition
of ORS 468.165 (6).

<i>Construction Started</i>	04/10/2002
<i>Construction Completed</i>	06/07/2002
<i>Facility Placed into Operation</i>	06/07/2002
<i>Application Received</i>	06/14/2002

Facility Cost

Claimed Cost	\$23,630
Unsubstantiated Cost	<u>- 788</u>
Eligible Cost	\$22,842

Invoices and canceled checks substantiated all but \$788 of the cost of the facility.

Facility Cost Allocable to Pollution Control

The only factor used in determining that **100%** of the claimed facility cost is allocable to pollution
control is the percentage of time the facility is used for pollution control. ORS 468.190 (3)

Compliance and Other Tax Credits

The applicant states that the facility is in compliance with Department rules and statutes and with EQC
orders. There were no DEQ permits issued to this facility. The EQC has not issued any tax credit
certificates to the Staton Companies.

Reviewers: Maggie Vandehey, DEQ

Nonpoint Source Pollution Control Facilities: Wood Chippers

The department recommends the EQC approve the certification of **26** wood chippers as pollution control facilities. Chipping woody debris is specifically listed under OAR 340-016-0060 (4)(h)(D) as accomplishing the reduction of a significant amount of nonpoint source (NPS) pollution. The wood chippers presented in the list below and on the individual Review Reports in this section have the **sole purpose** of reducing air pollution as provided under ORS 468.155(2).

App #	Applicant	Facility Cost	% Allocable	Maximum Tax Credit	EQC Action
6144	Susan Schechter	567	100%	35%	
6145	Treecology	6,000	100%	35%	
6146	Edward Smith	596	100%	35%	
6168	Eric Johnson	1,399	100%	35%	
6171	Richard H. Wendland	2,469	100%	35%	
6173	William E. Davie	2,099	100%	35%	
6174	Patrick D. Malone	1,599	100%	35%	
6182	Darrell W. Greenwood	596	100%	35%	
6183	David S. Bogden	2,450	100%	35%	
6186	John W. LeGros	679	100%	35%	
6189	Larry W. Fulkerson	22,900	100%	35%	
6192	Charles E. Hiles	1,499	100%	35%	
6193	Daniel E. Beasley	1,910	100%	35%	
6194	Mary A. West	630	100%	35%	
6195	Jan Thornagle	2,875	100%	35%	
6196	V&S Log Express, Inc.	2,950	100%	35%	
6198	Kurt Zarder	567	100%	35%	
6201	George Oja	2,429	100%	35%	
6203	Gerald R. Adams	3,000	100%	35%	
6205	Ralph S. Thomas	1,450	100%	35%	
6211	Salem Clock Shop	2,099	100%	35%	
6212	Kenneth C. Hill	3,130	100%	35%	
6213	V. Joan Jeffers	1,599	100%	35%	
6216	Jack Dongelewic	1,799	100%	35%	
6228	JoAnn M. Hilton	999	100%	35%	
6230	Glen A. Mick	2,450	100%	35%	
26 Apps	Sum:	\$70,740			
	Average:	\$2,721			
	Minimum:	\$567			
	Maximum:	\$22,900			



State of Oregon
Department of
Environmental
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Tax Credit Review Report

Director's Recommendation:	Approve
Applicant	Susan Schechter
Application No.	6144
Facility Cost	\$567
Percentage Allocable	100%
Maximum Tax Credit	35%
Useful Life	1 year

Pollution Control Facility: NPS

Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0080

Applicant Identification

Organized as: **Individual**

The applicant's address is:

**942 Osprey Drive
Umpqua, OR 97486**

Facility Identification

The applicant identified the facility as:

**Craftsman Model 247.775880, 8.5hp
Woodchipper, Serial # 1I211G20150**

The applicant is the owner of the **mobile** facility garaged at:

**942 Osprey Drive
Umpqua, OR 97486**

Eligibility

ORS 468.155 (1)(a)(B) The **sole purpose** of this **new equipment** is to reduce a substantial quantity of nonpoint source pollution.

ORS 468.155 (2)(b)
OAR 340-016-0060 (4)(h)(C) The **nonpoint source pollution reduction** is accomplished by the use of a wood chipper to reduce openly burned woody debris.

ORS 468.173 (3) The maximum tax credit available to the applicant is **35%** because the woodchipper was purchased after January 1, 2002.

Timeliness of Application

The application was submitted within the one year filing period of the 2001 edition of ORS 468.165 (6).

Purchase Date

04/27/2002

Application Received

05/09/2002

Facility Cost

Claimed Cost	<u>\$567</u>
Eligible Cost	<u>\$567</u>

An invoice substantiated the facility cost.

Facility Cost Allocable to Pollution Control

The only factor used in determining that **100%** of the cost of the wood chipper is allocable to air pollution control is the percentage of time the facility is used for pollution control.

Compliance and Other Tax Credits

The facility is in compliance with Department rules and statutes and with EQC orders. No DEQ permits have been issued to the applicant at this location. No other tax credits have been issued to the applicant.

Reviewer: Maggie Vandehey, DEQ



State of Oregon
Department of
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Tax Credit Review Report

Director's Recommendation:	Approve
Applicant	Treecology, Inc.
Application No.	6145
Facility Cost	\$6,000
Percentage Allocable	100%
Maximum Tax Credit	35%
Useful Life	3 years

Pollution Control Facility: NPS

Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0080

Applicant Identification

Organized as: **Individual**

The applicant's address is:

**23506 S Bonney Road
Colton, OR 97017**

Facility Identification

The applicant identified the facility as:

**Used Morbark Model 200, 102 hp, 12"
capacity, Serial # 4865E1514KW006213**

The applicant is the owner of the **mobile** facility
garaged at:

**23506 S Bonney Road
Colton, OR 97017**

Eligibility

ORS 468.155 (1)(a)(B) The **sole purpose** of this **new equipment** is to reduce a substantial quantity of nonpoint source pollution.

ORS 468.155 (2)(b)
OAR 340-016-0060 (4)(h)(C) The **nonpoint source pollution reduction** is accomplished by the use of a wood chipper to reduce openly burned woody debris.

ORS 468.173 (3) The maximum tax credit available to the applicant is **35%** because the woodchipper was purchased after January 1, 2002.

Timeliness of Application

The application was submitted within the one year filing period of the 2001 edition of ORS 468.165 (6).

Purchase Date

04/15/2002

Application Received

05/10/2002

Facility Cost

Claimed Cost	<u>\$6,000</u>
Eligible Cost	\$6,000

An invoice substantiated the facility cost.

Facility Cost Allocable to Pollution Control

The only factor used in determining that **100%** of the cost of the wood chipper is allocable to air pollution control is the percentage of time the facility is used for pollution control.

Compliance and Other Tax Credits

The facility is in compliance with Department rules and statutes and with EQC orders. No DEQ permits have been issued to the applicant at this location. No other tax credits have been issued to the applicant.

Reviewer: Maggie Vandehey, DEQ



State of Oregon
Department of
Environmental
Quality

Tax Credit Review Report

Director's Recommendation:	Approve
Applicant	Edward Smith
Application No.	6146
Facility Cost	\$596
Percentage Allocable	100%
Maximum Tax Credit	35%
Useful Life	1 year

Pollution Control Facility: NPS

Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0080

Applicant Identification

Organized as: **Individual**

The applicant's address is:

**PO Box 1086
Scappoose, OR 97056**

Facility Identification

The applicant identified the facility as:

**MTD Model 24A-465E129, 10hp
chipper/shredder, Serial # 1J051G20294**

The applicant is the owner of the **mobile** facility garaged at:

**31635 Conifer Heights Drive
Scappoose, OR 97056**

Eligibility

ORS 468.155 (1)(a)(B) The **sole purpose** of this **new equipment** is to reduce a substantial quantity of nonpoint source pollution.

ORS 468.155 (2)(b)
OAR 340-016-0060 (4)(h)(C) The **nonpoint source pollution reduction** is accomplished by the use of a wood chipper to reduce openly burned woody debris.

ORS 468.173 (3) The maximum tax credit available to the applicant is **35%** because the woodchipper was purchased after January 1, 2002.

Timeliness of Application

The application was submitted within the one year filing period of the 2001 edition of ORS 468.165 (6).

Purchase Date

04/09/2002

Application Received

05/10/2002

Facility Cost

Claimed Cost	<u>\$596</u>
Eligible Cost	\$596

An invoice substantiated the facility cost.

Facility Cost Allocable to Pollution Control

The only factor used in determining that **100%** of the cost of the wood chipper is allocable to air pollution control is the percentage of time the facility is used for pollution control.

Compliance and Other Tax Credits

The facility is in compliance with Department rules and statutes and with EQC orders. No DEQ permits have been issued to the applicant at this location. No other tax credits have been issued to the applicant.

Reviewer: Maggie Vandehey, DEQ



State of Oregon
Department of
Environmental
Quality

Tax Credit Review Report

Director's Recommendation:	Approve
Applicant	Eric Johnson
Application No.	6168
Facility Cost	\$1,399
Percentage Allocable	100%
Maximum Tax Credit	35%
Useful Life	1 year

Pollution Control Facility: NPS

Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0080

Applicant Identification

Organized as: **Individual**

The applicant's address is:

**2372 S Drift Creek Road
Lincoln City, OR 97367**

Facility Identification

The applicant identified the facility as:

**BearCat Model 70080 chipper/shredder, 3"
8hp, Serial #105772**

The applicant is the owner of the **mobile** facility
garaged at:

**2372 S Drift Creek Road
Lincoln City, OR 97367**

Eligibility

ORS 468.155 (1)(a)(B) The **sole purpose** of this **new equipment** is to reduce a substantial quantity of nonpoint source pollution.

ORS 468.155 (2)(b) The **nonpoint source pollution reduction** is accomplished by the use of a wood chipper to reduce openly burned woody debris.
OAR 340-016-0060 (4)(h)(C)

ORS 468.173 (3) The maximum tax credit available to the applicant is **35%** because the woodchipper was purchased after January 1, 2002.

Timeliness of Application

The application was submitted within the one year filing period of the 2001 edition of ORS 468.165 (6).

Purchase Date

01/12/2002

Application Received

05/16/2002

Facility Cost

Claimed Cost	<u>\$1,399</u>
Eligible Cost	\$1,399

An invoice substantiated the facility cost.

Facility Cost Allocable to Pollution Control

The only factor used in determining that **100%** of the cost of the wood chipper is allocable to air pollution control is the percentage of time the facility is used for pollution control.

Compliance and Other Tax Credits

The facility is in compliance with Department rules and statutes and with EQC orders. No DEQ permits have been issued to the applicant at this location. No other tax credits have been issued to the applicant.

Reviewer: Maggie Vandehey, DEQ



State of Oregon
Department of
Environmental
Quality

Tax Credit Review Report

Director's Recommendation:	Approve
Applicant	Richard H. Wendland
Application No.	6171
Facility Cost	\$2,469
Percentage Allocable	100%
Maximum Tax Credit	35%
Useful Life	1 year

Pollution Control Facility: NPS

Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0080

Applicant Identification

Organized as: **Individual**

The applicant's address is:

**23197 Old Peak Road
Philomath, OR 97370**

Facility Identification

The applicant identified the facility as:

**DR Chipper Model C18-CHP, 18hp 4 1/2"
capacity, Serial # 141100**

The applicant is the owner of the **mobile** facility garaged at:

**23197 Old Peak Road
Philomath, OR 97370**

Eligibility

ORS 468.155 (1)(a)(B) The **sole purpose** of this **new equipment** is to reduce a substantial quantity of nonpoint source pollution.

ORS 468.155 (2)(b)
OAR 340-016-0060 (4)(h)(C) The **nonpoint source pollution reduction** is accomplished by the use of a wood chipper to reduce openly burned woody debris.

ORS 468.173 (3) The maximum tax credit available to the applicant is **35%** because the woodchipper was purchased after January 1, 2002.

Timeliness of Application

The application was submitted within the one year filing period of the 2001 edition of ORS 468.165 (6).

Purchase Date

03/13/2002

Application Received

05/22/2002

Facility Cost

Claimed Cost	<u>\$2,469</u>
Eligible Cost	\$2,469

An invoice substantiated the facility cost.

Facility Cost Allocable to Pollution Control

The only factor used in determining that **100%** of the cost of the wood chipper is allocable to air pollution control is the percentage of time the facility is used for pollution control.

Compliance and Other Tax Credits

The facility is in compliance with Department rules and statutes and with EQC orders. No DEQ permits have been issued to the applicant at this location. No other tax credits have been issued to the applicant.

Reviewer: Maggie Vandehey, DEQ



State of Oregon
Department of
Environmental
Quality

Tax Credit Review Report

Director's Recommendation:	Approve
Applicant	William E. Davie
Application No.	6173
Facility Cost	\$2,099
Percentage Allocable	100%
Maximum Tax Credit	35%
Useful Life	1 year

Pollution Control Facility: NPS

Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0080

Applicant Identification

Organized as: **Individual**

The applicant's address is:

**850 Jefferson Street
Eugene, OR 97402**

Facility Identification

The applicant identified the facility as:

**BearCat Model 70380, 8hp 3" capacity
Woodchipper, Serial # 103849**

The applicant is the owner of the **mobile** facility
garaged at:

**850 Jefferson Street
Eugene, OR 97402**

Eligibility

ORS 468.155 (1)(a)(B) The **sole purpose** of this **new equipment** is to reduce a substantial quantity of nonpoint source pollution.

ORS 468.155 (2)(b)
OAR 340-016-0060 (4)(h)(C) The **nonpoint source pollution reduction** is accomplished by the use of a wood chipper to reduce openly burned woody debris.

ORS 468.173 (3) The maximum tax credit available to the applicant is **35%** because the woodchipper was purchased after January 1, 2002.

Timeliness of Application

The application was submitted within the one year filing period of the 2001 edition of ORS 468.165 (6).

Purchase Date

05/10/2002

Application Received

05/23/2002

Facility Cost

Claimed Cost	<u>\$2,099</u>
Eligible Cost	\$2,099

An invoice substantiated the facility cost.

Facility Cost Allocable to Pollution Control

The only factor used in determining that **100%** of the cost of the wood chipper is allocable to air pollution control is the percentage of time the facility is used for pollution control.

Compliance and Other Tax Credits

The facility is in compliance with Department rules and statutes and with EQC orders. No DEQ permits have been issued to the applicant at this location. No other tax credits have been issued to the applicant.

Reviewer: Maggie Vandehey, DEQ



State of Oregon
Department of
Environmental
Quality

Tax Credit Review Report

Director's Recommendation:	Approve
Applicant	Patrick D. Malone
Application No.	6174
Facility Cost	\$1,599
Percentage Allocable	100%
Maximum Tax Credit	35%
Useful Life	1 year

Pollution Control Facility: NPS

Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0080

Applicant Identification

Organized as: **Individual**

The applicant's address is:

**40330 SE Thomas Road
Sandy, OR 97055**

Facility Identification

The applicant identified the facility as:

**BearCat Model 70180, 8hp Woodchipper,
Serial # 104338**

The applicant is the owner of the **mobile** facility
garaged at:

**40330 SE Thomas Road
Sandy, OR 97055**

Eligibility

ORS 468.155 (1)(a)(B) The **sole purpose** of this **new equipment** is to reduce a substantial quantity of nonpoint source pollution.

ORS 468.155 (2)(b)
OAR 340-016-0060 (4)(h)(C) The **nonpoint source pollution reduction** is accomplished by the use of a wood chipper to reduce openly burned woody debris.

ORS 468.173 (3) The maximum tax credit available to the applicant is **35%** because the woodchipper was purchased after January 1, 2002.

Timeliness of Application

The application was submitted within the one year filing period of the 2001 edition of ORS 468.165 (6).

Purchase Date

04/11/2002

Application Received

05/24/2002

Facility Cost

Claimed Cost	<u>\$1,599</u>
Eligible Cost	\$1,599

An invoice substantiated the facility cost.

Facility Cost Allocable to Pollution Control

The only factor used in determining that **100%** of the cost of the wood chipper is allocable to air pollution control is the percentage of time the facility is used for pollution control.

Compliance and Other Tax Credits

The facility is in compliance with Department rules and statutes and with EQC orders. No DEQ permits have been issued to the applicant at this location. No other tax credits have been issued to the applicant.

Reviewer: Maggie Vandehey, DEQ



State of Oregon
Department of
Environmental
Quality

Tax Credit Review Report

Director's Recommendation:	Approve
Applicant	Darrell W. Greenwood
Application No.	6182
Facility Cost	\$596
Percentage Allocable	100%
Maximum Tax Credit	35%
Useful Life	1 year

Pollution Control Facility: NPS

Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0080

Applicant Identification

Organized as: **Individual**

The applicant's address is:

**1800 SW 8th Avenue
West Linn, OR 97068**

Facility Identification

The applicant identified the facility as:

**Yard Machine MTD Model 465E chipper,
10hp 3" capacity, Serial # 1J251G20263**

The applicant is the owner of the **mobile** facility
garaged at:

**1800 SW 8th Avenue
West Linn, OR 97068**

Eligibility

ORS 468.155 (1)(a)(B) The **sole purpose** of this **new equipment** is to reduce a substantial quantity of nonpoint source pollution.

ORS 468.155 (2)(b) The **nonpoint source pollution reduction** is accomplished by the use of a wood chipper to reduce openly burned woody debris.
OAR 340-016-0060 (4)(h)(C)

ORS 468.173 (3) The maximum tax credit available to the applicant is **35%** because the woodchipper was purchased after January 1, 2002.

Timeliness of Application

The application was submitted within the one year filing period of the 2001 edition of ORS 468.165 (6).

Purchase Date

05/23/2002

Application Received

06/04/2002

Facility Cost

Claimed Cost	<u>\$596</u>
Eligible Cost	\$596

An invoice substantiated the facility cost.

Facility Cost Allocable to Pollution Control

The only factor used in determining that **100%** of the cost of the wood chipper is allocable to air pollution control is the percentage of time the facility is used for pollution control.

Compliance and Other Tax Credits

The facility is in compliance with Department rules and statutes and with EQC orders. No DEQ permits have been issued to the applicant at this location. No other tax credits have been issued to the applicant.

Reviewer: Maggie Vandehey, DEQ



State of Oregon
Department of
Environmental
Quality

Tax Credit Review Report

Director's Recommendation:	Approve
Applicant	David S. Bogden
Application No.	6183
Facility Cost	\$2,450
Percentage Allocable	100%
Maximum Tax Credit	35%
Useful Life	1 year

Pollution Control Facility: NPS

Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0080

Applicant Identification

Organized as: **Individual**

The applicant's address is:

**29791 E. Meissner Road
Deer Island, OR 97054-9503**

Facility Identification

The applicant identified the facility as:

**BearCat PTO Model 70554, 24hp tractor,
Serial # 107056**

The applicant is the owner of the **mobile** facility
garaged at:

**29791 E. Meissner Road
Deer Island, OR 97054-9503**

Eligibility

ORS 468.155 (1)(a)(B) The **sole purpose** of this **new equipment** is to reduce a substantial quantity of nonpoint source pollution.

ORS 468.155 (2)(b)
OAR 340-016-0060 (4)(h)(C) The **nonpoint source pollution reduction** is accomplished by the use of a wood chipper to reduce openly burned woody debris.

ORS 468.173 (3) The maximum tax credit available to the applicant is **35%** because the woodchipper was purchased after January 1, 2002.

Timeliness of Application

The application was submitted within the one year filing period of the 2001 edition of ORS 468.165 (6).

Purchase Date

05/11/2002

Application Received

06/11/2002

Facility Cost

Claimed Cost	<u>\$2,450</u>
Eligible Cost	\$2,450

An invoice substantiated the facility cost.

Facility Cost Allocable to Pollution Control

The only factor used in determining that **100%** of the cost of the wood chipper is allocable to air pollution control is the percentage of time the facility is used for pollution control.

Compliance and Other Tax Credits

The facility is in compliance with Department rules and statutes and with EQC orders. No DEQ permits have been issued to the applicant at this location. No other tax credits have been issued to the applicant.

Reviewer: Maggie Vandehey, DEQ



State of Oregon
Department of
Environmental
Quality

Tax Credit Review Report

Director's Recommendation:	Approve
Applicant	John W. LeGros
Application No.	6186
Facility Cost	\$679
Percentage Allocable	100%
Maximum Tax Credit	35%
Useful Life	1 year

Pollution Control Facility: NPS

Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0080

Applicant Identification

Organized as: **Individual**

The applicant's address is:

**PO Box 5082
Central Point, OR 97502-0045**

Facility Identification

The applicant identified the facility as:

**BearCat Model 70530 3hp 1 1/2" capacity
chipper, Serial # 104436**

The applicant is the owner of the **mobile** facility
garaged at:

**800 Freeman Road
Central Point, OR 97502-0045**

Eligibility

ORS 468.155 (1)(a)(B) The **sole purpose** of this **new equipment** is to reduce a substantial quantity of nonpoint source pollution.

ORS 468.155 (2)(b)
OAR 340-016-0060 (4)(h)(C) The **nonpoint source pollution reduction** is accomplished by the use of a wood chipper to reduce openly burned woody debris.

ORS 468.173 (3) The maximum tax credit available to the applicant is **35%** because the woodchipper was purchased after January 1, 2002.

Timeliness of Application

The application was submitted within the one year filing period of the 2001 edition of ORS 468.165 (6).

Purchase Date

05/31/2002

Application Received

06/13/2002

Facility Cost

Claimed Cost	<u>\$679</u>
Eligible Cost	<u>\$679</u>

An invoice substantiated the facility cost.

Facility Cost Allocable to Pollution Control

The only factor used in determining that **100%** of the cost of the wood chipper is allocable to air pollution control is the percentage of time the facility is used for pollution control.

Compliance and Other Tax Credits

The facility is in compliance with Department rules and statutes and with EQC orders. No DEQ permits have been issued to the applicant at this location. No other tax credits have been issued to the applicant.

Reviewer: Maggie Vandehey, DEQ



State of Oregon
Department of
Environmental
Quality

Tax Credit Review Report

Director's Recommendation:	Approve
Applicant	Larry W. Fulkerson
Application No.	6189
Facility Cost	\$22,900
Percentage Allocable	100%
Maximum Tax Credit	35%
Useful Life	7 years

Pollution Control Facility: NPS

Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0080

Applicant Identification

Organized as: **LLC**

The applicant's address is:

**22321 McArdle Road
Bend, OR 97702**

Facility Identification

The applicant identified the facility as:

**Vermeer Model BC100XL, 85hp 12"
capacity brush chipper, Serial #
1VRU111A421002598**

The applicant is the owner of the **mobile** facility
garaged at:

**22321 McArdle Road
Bend, OR 97702**

Eligibility

ORS 468.155 (1)(a)(B) The **sole purpose** of this **new equipment** is to reduce a substantial quantity of nonpoint source pollution.

ORS 468.155 (2)(b) The **nonpoint source pollution reduction** is accomplished by the use of a wood chipper to reduce openly burned woody debris.
OAR 340-016-0060 (4)(h)(C)

ORS 468.173 (3) The maximum tax credit available to the applicant is **35%** because the woodchipper was purchased after January 1, 2002.

Timeliness of Application

The application was submitted within the one year filing period of the 2001 edition of ORS 468.165 (6).

Purchase Date

05/28/2002

Application Received

06/14/2002

Facility Cost

Claimed Cost	<u>\$22,900</u>
Eligible Cost	\$22,900

An invoice substantiated the facility cost.

Facility Cost Allocable to Pollution Control

The only factor used in determining that **100%** of the cost of the wood chipper is allocable to air pollution control is the percentage of time the facility is used for pollution control.

Compliance and Other Tax Credits

The facility is in compliance with Department rules and statutes and with EQC orders. No DEQ permits have been issued to the applicant at this location. No other tax credits have been issued to the applicant.

Reviewer: Maggie Vandehey, DEQ



State of Oregon
Department of
Environmental
Quality

Tax Credit Review Report

Director's Recommendation:	Approve
Applicant	Charles E. Hiles
Application No.	6192
Facility Cost	\$1,499
Percentage Allocable	100%
Maximum Tax Credit	35%
Useful Life	1 year

Pollution Control Facility: NPS

Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0080

Applicant Identification

Organized as: **Individual**

The applicant's address is:

**5028 SE 59th Avenue
Portland, OR 97206**

Facility Identification

The applicant identified the facility as:

**BearCat Model 70080, 8hp woodchipper,
Serial # 200543**

The applicant is the owner of the **mobile** facility garaged at:

**5028 SE 59th Avenue
Portland, OR 97206**

Eligibility

ORS 468.155 (1)(a)(B) The **sole purpose** of this **new equipment** is to reduce a substantial quantity of nonpoint source pollution.

ORS 468.155 (2)(b)
OAR 340-016-0060 (4)(h)(C) The **nonpoint source pollution reduction** is accomplished by the use of a wood chipper to reduce openly burned woody debris.

ORS 468.173 (3) The maximum tax credit available to the applicant is **35%** because the woodchipper was purchased after January 1, 2002.

Timeliness of Application

The application was submitted within the one year filing period of the 2001 edition of ORS 468.165 (6).

Purchase Date

06/05/2002

Application Received

06/17/2002

Facility Cost

Claimed Cost	<u>\$1,499</u>
Eligible Cost	\$1,499

An invoice substantiated the facility cost.

Facility Cost Allocable to Pollution Control

The only factor used in determining that **100%** of the cost of the wood chipper is allocable to air pollution control is the percentage of time the facility is used for pollution control.

Compliance and Other Tax Credits

The facility is in compliance with Department rules and statutes and with EQC orders. No DEQ permits have been issued to the applicant at this location. No other tax credits have been issued to the applicant.

Reviewer: Maggie Vandehey, DEQ



State of Oregon
Department of
Environmental
Quality

Tax Credit Review Report

Director's Recommendation:	Approve
Applicant	Daniel E. Beasley
Application No.	6193
Facility Cost	\$1,910
Percentage Allocable	100%
Maximum Tax Credit	35%
Useful Life	3 years

Pollution Control Facility: NPS

Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0080

Applicant Identification

Organized as: **Individual**

The applicant's address is:

**3202 SW Hamilton Court
Portland, OR 97201-1218**

Facility Identification

The applicant identified the facility as:

**MacKissic Model 12PTE 9hp, OHV-3"
capacity woodchipper, Serial # 515414**

The applicant is the owner of the **mobile** facility
garaged at:

**3202 SW Hamilton Court
Portland, OR 97201-1218**

Eligibility

ORS 468.155 (1)(a)(B) The **sole purpose** of this **new equipment** is to reduce a substantial quantity of nonpoint source pollution.

ORS 468.155 (2)(b)
OAR 340-016-0060 (4)(h)(C) The **nonpoint source pollution reduction** is accomplished by the use of a wood chipper to reduce openly burned woody debris.

ORS 468.173 (3) The maximum tax credit available to the applicant is **35%** because the woodchipper was purchased after January 1, 2002.

Timeliness of Application

The application was submitted within the one year filing period of the 2001 edition of ORS 468.165 (6).

Purchase Date

06/07/2002

Application Received

06/19/2002

Facility Cost

Claimed Cost	<u>\$1,910</u>
Eligible Cost	\$1,910

An invoice substantiated the facility cost.

Facility Cost Allocable to Pollution Control

The only factor used in determining that **100%** of the cost of the wood chipper is allocable to air pollution control is the percentage of time the facility is used for pollution control.

Compliance and Other Tax Credits

The facility is in compliance with Department rules and statutes and with EQC orders. No DEQ permits have been issued to the applicant at this location. No other tax credits have been issued to the applicant.

Reviewer: Maggie Vandehey, DEQ



State of Oregon
Department of
Environmental
Quality

Tax Credit Review Report

Director's Recommendation:	Approve
Applicant	Mary A. West
Application No.	6194
Facility Cost	\$630
Percentage Allocable	100%
Maximum Tax Credit	35%
Useful Life	1 year

Pollution Control Facility: NPS

Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0080

Applicant Identification

Organized as: **Individual**

The applicant's address is:

**PO Box 68
Florence, OR 97439**

Facility Identification

The applicant identified the facility as:

**Craftsman Model 77588, 8.5hp woodchipper,
Serial # 1I241G20195**

The applicant is the owner of the **mobile** facility
garaged at:

**1600-403 Rhododendron Drive
Florence, OR 97439**

Eligibility

ORS 468.155 (1)(a)(B) The **sole purpose** of this **new equipment** is to reduce a substantial quantity of nonpoint source pollution.

ORS 468.155 (2)(b) The **nonpoint source pollution reduction** is accomplished by the use of a wood chipper to reduce openly burned woody debris.
OAR 340-016-0060 (4)(h)(C)

ORS 468.173 (3) The maximum tax credit available to the applicant is **35%** because the woodchipper was purchased after January 1, 2002.

Timeliness of Application

The application was submitted within the one year filing period of the 2001 edition of ORS 468.165 (6).

Purchase Date

06/08/2002

Application Received

06/25/2002

Facility Cost

Claimed Cost	<u>\$630</u>
Eligible Cost	\$630

An invoice substantiated the facility cost.

Facility Cost Allocable to Pollution Control

The only factor used in determining that **100%** of the cost of the wood chipper is allocable to air pollution control is the percentage of time the facility is used for pollution control.

Compliance and Other Tax Credits

The facility is in compliance with Department rules and statutes and with EQC orders. No DEQ permits have been issued to the applicant at this location. No other tax credits have been issued to the applicant.

Reviewer: Maggie Vandehey, DEQ



State of Oregon
Department of
Environmental
Quality

Tax Credit Review Report

Director's Recommendation:	Approve
Applicant	Jan Thornagle
Application No.	6195
Facility Cost	\$2,875
Percentage Allocable	100%
Maximum Tax Credit	35%
Useful Life	5 years

Pollution Control Facility: NPS

Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0080

Applicant Identification

Organized as: **Sole Proprietor**

The applicant's address is:

**2970 Ballard Road
Dallas, OR 97338**

Facility Identification

The applicant identified the facility as:

**Woods Model 5000 woodchipper/blower,
Serial # 768711**

The applicant is the owner of the **mobile** facility garaged at:

**2970 Ballard Road
Dallas, OR 97338**

Eligibility

ORS 468.155 (1)(a)(B) The **sole purpose** of this **new equipment** is to reduce a substantial quantity of nonpoint source pollution.

ORS 468.155 (2)(b)
OAR 340-016-0060 (4)(h)(C) The **nonpoint source pollution reduction** is accomplished by the use of a wood chipper to reduce openly burned woody debris.

ORS 468.173 (3) The maximum tax credit available to the applicant is **35%** because the woodchipper was purchased after January 1, 2002.

Timeliness of Application

The application was submitted within the one year filing period of the 2001 edition of ORS 468.165 (6).

Purchase Date

04/20/2002

Application Received

06/26/2002

Facility Cost

Claimed Cost	<u>\$2,875</u>
Eligible Cost	\$2,875

An invoice substantiated the facility cost.

Facility Cost Allocable to Pollution Control

The only factor used in determining that **100%** of the cost of the wood chipper is allocable to air pollution control is the percentage of time the facility is used for pollution control.

Compliance and Other Tax Credits

The facility is in compliance with Department rules and statutes and with EQC orders. No DEQ permits have been issued to the applicant at this location. No other tax credits have been issued to the applicant.

Reviewer: Maggie Vandehey, DEQ



State of Oregon
Department of
Environmental
Quality

Tax Credit Review Report

Director's Recommendation:	Approve
Applicant	V&S Log Express, Inc.
Application No.	6196
Facility Cost	\$2,950
Percentage Allocable	100%
Maximum Tax Credit	35%
Useful Life	1 year

Pollution Control Facility: NPS

Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0080

Applicant Identification

Organized as: **C Corp**

The applicant's address is:

**PO Box 627
44025 NW Caldwell Lane
Banks, OR 97106**

Facility Identification

The applicant identified the facility as:

**Goossen Model PTO CS-1, PTO 540 rpm
woochipper, Serial # 2268**

The applicant is the owner of the **mobile** facility garaged at:

**44025 NW Caldwell Lane
Banks, OR 97106**

Eligibility

ORS 468.155 (1)(a)(B) The **sole purpose** of this **new equipment** is to reduce a substantial quantity of nonpoint source pollution.

ORS 468.155 (2)(b)
OAR 340-016-0060 (4)(h)(C) The **nonpoint source pollution reduction** is accomplished by the use of a wood chipper to reduce openly burned woody debris.

ORS 468.173 (3) The maximum tax credit available to the applicant is **35%** because the woodchipper was purchased after January 1, 2002.

Timeliness of Application

The application was submitted within the one year filing period of the 2001 edition of ORS 468.165 (6).

Purchase Date

02/20/2002

Application Received

06/27/2002

Facility Cost

Claimed Cost	<u>\$2,950</u>
Eligible Cost	\$2,950

An invoice substantiated the facility cost.

Facility Cost Allocable to Pollution Control

The only factor used in determining that **100%** of the cost of the wood chipper is allocable to air pollution control is the percentage of time the facility is used for pollution control.

Compliance and Other Tax Credits

The facility is in compliance with Department rules and statutes and with EQC orders. No DEQ permits have been issued to the applicant at this location. No other tax credits have been issued to the applicant.

Reviewer: Maggie Vandehey, DEQ



State of Oregon
Department of
Environmental
Quality

Tax Credit Review Report

Director's Recommendation:	Approve
Applicant	Kurt Zarder
Application No.	6198
Facility Cost	\$567
Percentage Allocable	100%
Maximum Tax Credit	35%
Useful Life	1 year

Pollution Control Facility: NPS

Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0080

Applicant Identification

Organized as: **Individual**

The applicant's address is:

90867 Travis Lane

Coos Bay, OR 97420

Facility Identification

The applicant identified the facility as:

**Craftsman Model 77588, 8.5hp, 3" capacity,
Serial # 1E312G80093**

The applicant is the owner of the **mobile** facility
garaged at:

90867 Travis Lane

Coos Bay, OR 97420

Eligibility

ORS 468.155 (1)(a)(B) The **sole purpose** of this **new equipment** is to reduce a substantial quantity of nonpoint source pollution.

ORS 468.155 (2)(b) The **nonpoint source pollution reduction** is accomplished by the use of a wood chipper to reduce openly burned woody debris.
OAR 340-016-0060 (4)(h)(C)

ORS 468.173 (3) The maximum tax credit available to the applicant is **35%** because the woodchipper was purchased after January 1, 2002.

Timeliness of Application

The application was submitted within the one year filing period of the 2001 edition of ORS 468.165 (6).

Purchase Date

05/31/2002

Application Received

07/02/2002

Facility Cost

Claimed Cost	<u>\$567</u>
Eligible Cost	<u>\$567</u>

An invoice substantiated the facility cost.

Facility Cost Allocable to Pollution Control

The only factor used in determining that **100%** of the cost of the wood chipper is allocable to air pollution control is the percentage of time the facility is used for pollution control.

Compliance and Other Tax Credits

The facility is in compliance with Department rules and statutes and with EQC orders. No DEQ permits have been issued to the applicant at this location. No other tax credits have been issued to the applicant.

Reviewer: Maggie Vandehey, DEQ



State of Oregon
Department of
Environmental
Quality

Tax Credit Review Report

Director's Recommendation:	Approve
Applicant	George Oja
Application No.	6201
Facility Cost	\$2,429
Percentage Allocable	100%
Maximum Tax Credit	35%
Useful Life	1 year

Pollution Control Facility: NPS

Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0080

Applicant Identification

Organized as: **Individual**

The applicant's address is:

**348 NE 28th Place
McMinnville, OR 97128**

Facility Identification

The applicant identified the facility as:

**DR Chipper Model C18NH-CHP, 18hp OHV
4.5" capacity, Serial # 01936N**

The applicant is the owner of the **mobile** facility
garaged at:

**64191 Tamarack Road
Lostine, OR 97128**

Eligibility

ORS 468.155 (1)(a)(B) The **sole purpose** of this **new equipment** is to reduce a substantial quantity of nonpoint source pollution.

ORS 468.155 (2)(b)
OAR 340-016-0060 (4)(h)(C) The **nonpoint source pollution reduction** is accomplished by the use of a wood chipper to reduce openly burned woody debris.

ORS 468.173 (3) The maximum tax credit available to the applicant is **35%** because the woodchipper was purchased after January 1, 2002.

Timeliness of Application

The application was submitted within the one year filing period of the 2001 edition of ORS 468.165 (6).

Purchase Date

05/08/2002

Application Received

07/03/2002

Facility Cost

Claimed Cost	<u>\$2,429</u>
Eligible Cost	\$2,429

An invoice substantiated the facility cost.

Facility Cost Allocable to Pollution Control

The only factor used in determining that **100%** of the cost of the wood chipper is allocable to air pollution control is the percentage of time the facility is used for pollution control.

Compliance and Other Tax Credits

The facility is in compliance with Department rules and statutes and with EQC orders. No DEQ permits have been issued to the applicant at this location. No other tax credits have been issued to the applicant.

Reviewer: Maggie Vandehey, DEQ



State of Oregon
Department of
Environmental
Quality

Tax Credit Review Report

Director's Recommendation:	Approve
Applicant	Gerald R. Adams
Application No.	6203
Facility Cost	\$3,000
Percentage Allocable	100%
Maximum Tax Credit	35%
Useful Life	1 year

Pollution Control Facility: NPS

Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0080

Applicant Identification

Organized as: **Individual**

The applicant's address is:

**1564 Gibbon Road
Central Point, OR 97502**

Facility Identification

The applicant identified the facility as:

**BearCat PTO Model 73554 woodchipper, 5"
capacity, Serial # 103919**

The applicant is the owner of the **mobile** facility
garaged at:

**1564 Gibbon Road
Central Point, OR 97502**

Eligibility

ORS 468.155 (1)(a)(B) The **sole purpose** of this **new equipment** is to reduce a substantial quantity of nonpoint source pollution.

ORS 468.155 (2)(b)
OAR 340-016-0060 (4)(h)(C) The **nonpoint source pollution reduction** is accomplished by the use of a wood chipper to reduce openly burned woody debris.

ORS 468.173 (3) The maximum tax credit available to the applicant is **35%** because the woodchipper was purchased after January 1, 2002.

Timeliness of Application

The application was submitted within the one year filing period of the 2001 edition of ORS 468.165 (6).

Purchase Date

03/19/2002

Application Received

07/08/2002

Facility Cost

Claimed Cost	<u>\$3,000</u>
Eligible Cost	\$3,000

An invoice substantiated the facility cost.

Facility Cost Allocable to Pollution Control

The only factor used in determining that **100%** of the cost of the wood chipper is allocable to air pollution control is the percentage of time the facility is used for pollution control.

Compliance and Other Tax Credits

The facility is in compliance with Department rules and statutes and with EQC orders. No DEQ permits have been issued to the applicant at this location. No other tax credits have been issued to the applicant.

Reviewer: Maggie Vandehey, DEQ



State of Oregon
Department of
Environmental
Quality

Tax Credit Review Report

Director's Recommendation:	Approve
Applicant	Ralph S. Thomas
Application No.	6205
Facility Cost	\$1,450
Percentage Allocable	100%
Maximum Tax Credit	35%
Useful Life	1 year

Pollution Control Facility: NPS

Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0080

Applicant Identification

Organized as: **Individual**

The applicant's address is:

**2326 NE 23rd
Portland, OR 97212**

Facility Identification

The applicant identified the facility as:

**BearCat Model BCE70180 woodchipper,
8hp, Serial # 200015**

The applicant is the owner of the **mobile** facility garaged at:

**2326 NE 23rd
Portland, OR 97212**

Eligibility

ORS 468.155 (1)(a)(B) The **sole purpose** of this **new equipment** is to reduce a substantial quantity of nonpoint source pollution.

ORS 468.155 (2)(b) The **nonpoint source pollution reduction** is accomplished by the use of a wood chipper to reduce openly burned woody debris.
OAR 340-016-0060 (4)(h)(C)

ORS 468.173 (3) The maximum tax credit available to the applicant is **35%** because the woodchipper was purchased after January 1, 2002.

Timeliness of Application

The application was submitted within the one year filing period of the 2001 edition of ORS 468.165 (6).

Purchase Date

06/21/2002

Application Received

07/08/2002

Facility Cost

Claimed Cost	<u>\$1,450</u>
Eligible Cost	\$1,450

An invoice substantiated the facility cost.

Facility Cost Allocable to Pollution Control

The only factor used in determining that **100%** of the cost of the wood chipper is allocable to air pollution control is the percentage of time the facility is used for pollution control.

Compliance and Other Tax Credits

The facility is in compliance with Department rules and statutes and with EQC orders. No DEQ permits have been issued to the applicant at this location. No other tax credits have been issued to the applicant.

Reviewer: Maggie Vandehey, DEQ



State of Oregon
Department of
Environmental
Quality

Tax Credit Review Report

Director's Recommendation:	Approve
Applicant	Salem Clock Shop
Application No.	6211
Facility Cost	\$2,099
Percentage Allocable	100%
Maximum Tax Credit	35%
Useful Life	5 years

Pollution Control Facility: NPS

Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0080

Applicant Identification

Organized as: **C Corp**

The applicant's address is:

**1085 Broadway Street NE
Salem, OR 97301**

Facility Identification

The applicant identified the facility as:

BearCat Model 70380 woodchipper, 8hp

The applicant is the owner of the **mobile** facility garaged at:

**1085 Broadway Street NE
Salem, OR 97301**

Eligibility

ORS 468.155 (1)(a)(B) The **sole purpose** of this **new equipment** is to reduce a substantial quantity of nonpoint source pollution.

ORS 468.155 (2)(b)
OAR 340-016-0060 (4)(h)(C) The **nonpoint source pollution reduction** is accomplished by the use of a wood chipper to reduce openly burned woody debris.

ORS 468.173 (3) The maximum tax credit available to the applicant is **35%** because the woodchipper was purchased after January 1, 2002.

Timeliness of Application

The application was submitted within the one year filing period of the 2001 edition of ORS 468.165 (6).

Purchase Date

01/21/2002

Application Received

07/10/2002

Facility Cost

Claimed Cost	<u>\$2,099</u>
Eligible Cost	\$2,099

An invoice substantiated the facility cost.

Facility Cost Allocable to Pollution Control

The only factor used in determining that **100%** of the cost of the wood chipper is allocable to air pollution control is the percentage of time the facility is used for pollution control.

Compliance and Other Tax Credits

The facility is in compliance with Department rules and statutes and with EQC orders. No DEQ permits have been issued to the applicant at this location. No other tax credits have been issued to the applicant.

Reviewer: Maggie Vandehey, DEQ



State of Oregon
Department of
Environmental
Quality

Tax Credit Review Report

Director's Recommendation:	Approve
Applicant	Kenneth C. Hill
Application No.	6212
Facility Cost	\$3,130
Percentage Allocable	100%
Maximum Tax Credit	35%
Useful Life	5 years

Pollution Control Facility: NPS

Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0080

Applicant Identification

Organized as: **Individual**

The applicant's address is:

**4598 Williams Highway
Grants Pass, OR 97577**

Facility Identification

The applicant identified the facility as:

**BearCat PTO Model 73454 woodchipper, 4"
capacity, Serial # 201840**

The applicant is the owner of the **mobile** facility
garaged at:

**4598 Williams Highway
Grants Pass, OR 97577**

Eligibility

ORS 468.155 (1)(a)(B) The **sole purpose** of this **new equipment** is to reduce a substantial quantity of nonpoint source pollution.

ORS 468.155 (2)(b) The **nonpoint source pollution reduction** is accomplished by the use of a wood chipper to reduce openly burned woody debris.
OAR 340-016-0060 (4)(h)(C)

ORS 468.173 (3) The maximum tax credit available to the applicant is **35%** because the woodchipper was purchased after January 1, 2002.

Timeliness of Application

The application was submitted within the one year filing period of the 2001 edition of ORS 468.165 (6).

Purchase Date

06/24/2002

Application Received

07/12/2002

Facility Cost

Claimed Cost	<u>\$3,130</u>
Eligible Cost	\$3,130

An invoice substantiated the facility cost.

Facility Cost Allocable to Pollution Control

The only factor used in determining that **100%** of the cost of the wood chipper is allocable to air pollution control is the percentage of time the facility is used for pollution control.

Compliance and Other Tax Credits

The facility is in compliance with Department rules and statutes and with EQC orders. No DEQ permits have been issued to the applicant at this location. No other tax credits have been issued to the applicant.

Reviewer: Maggie Vandehey, DEQ



State of Oregon
Department of
Environmental
Quality

Tax Credit Review Report

Director's Recommendation:	Approve
Applicant	V. Joan Jeffers
Application No.	6213
Facility Cost	\$1,599
Percentage Allocable	100%
Maximum Tax Credit	35%
Useful Life	1 year

Pollution Control Facility: NPS

Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0080

Applicant Identification

Organized as: **Individual**

The applicant's address is:

**3226 Fir Tree Drive SE
Salem, OR 97301**

Facility Identification

The applicant identified the facility as:

BearCat Model 70180, 8hp, Serial # 104807

The applicant is the owner of the **mobile** facility garaged at:

**3226 Fir Tree Drive SE
Salem, OR 97301**

Eligibility

ORS 468.155 (1)(a)(B) The **sole purpose** of this **new equipment** is to reduce a substantial quantity of nonpoint source pollution.

ORS 468.155 (2)(b)
OAR 340-016-0060 (4)(h)(C) The **nonpoint source pollution reduction** is accomplished by the use of a wood chipper to reduce openly burned woody debris.

ORS 468.173 (3) The maximum tax credit available to the applicant is **35%** because the woodchipper was purchased after January 1, 2002.

Timeliness of Application

The application was submitted within the one year filing period of the 2001 edition of ORS 468.165 (6).

Purchase Date

07/03/2002

Application Received

07/11/2002

Facility Cost

Claimed Cost	<u>\$1,599</u>
Eligible Cost	\$1,599

An invoice substantiated the facility cost.

Facility Cost Allocable to Pollution Control

The only factor used in determining that **100%** of the cost of the wood chipper is allocable to air pollution control is the percentage of time the facility is used for pollution control.

Compliance and Other Tax Credits

The facility is in compliance with Department rules and statutes and with EQC orders. No DEQ permits have been issued to the applicant at this location. No other tax credits have been issued to the applicant.

Reviewer: Maggie Vandehey, DEQ



State of Oregon
Department of
Environmental
Quality

Director's Recommendation:	Approve
Applicant	Jack Dongelewic
Application No.	6216
Facility Cost	\$1,799
Percentage Allocable	100%
Maximum Tax Credit	35%
Useful Life	3 years

Tax Credit Review Report

Pollution Control Facility: NPS

Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0080

Applicant Identification

Organized as: **Individual**

The applicant's address is:

**160 Blas Cerdena Drive
Cave Junction, OR 97523**

Facility Identification

The applicant identified the facility as:

**DR Chipper, Model C1120TMA, 12hp,
Serial # 01500T**

The applicant is the owner of the **mobile** facility
garaged at:

**160 Blas Cerdena Drive
Cave Junction, OR 97523**

Eligibility

ORS 468.155 (1)(a)(B) The **sole purpose** of this **new equipment** is to reduce a substantial quantity of nonpoint source pollution.

ORS 468.155 (2)(b) (4)(h)(C) The **nonpoint source pollution reduction** is accomplished by the use of a wood chipper to reduce openly burned woody debris.

ORS 468.173 (3) The maximum tax credit available to the applicant is **35%** because the woodchipper was purchased after January 1, 2002.

Timeliness of Application

The application was submitted within the one year filing period of the 2001 edition of ORS 468.165 (6).

Purchase Date

06/26/2002

Application Received

07/18/2002

Facility Cost

Claimed Cost	<u>\$1,799</u>
Eligible Cost	\$1,799

An invoice substantiated the facility cost.

Facility Cost Allocable to Pollution Control

The only factor used in determining that **100%** of the cost of the wood chipper is allocable to air pollution control is the percentage of time the facility is used for pollution control.

Compliance and Other Tax Credits

The facility is in compliance with Department rules and statutes and with EQC orders. No DEQ permits have been issued to the applicant at this location. No other tax credits have been issued to the applicant.

Reviewer: Maggie Vandehey, DEQ



State of Oregon
Department of
Environmental
Quality

Tax Credit Review Report

Director's Recommendation:	Approve
Applicant	JoAnn M. Hilton
Application No.	6228
Facility Cost	\$999
Percentage Allocable	100%
Maximum Tax Credit	35%
Useful Life	1 year

Pollution Control Facility: NPS

Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0080

Applicant Identification

Organized as: **Individual**

The applicant's address is:

**778 E Lincoln
Woodburn, OR 97071**

Facility Identification

The applicant identified the facility as:

**BearCat Model 70050 woodchipper, 5hp 3"
capacity, Serial # 201283**

The applicant is the owner of the **mobile** facility
garaged at:

**778 E Lincoln
Woodburn, OR 97071**

Eligibility

ORS 468.155 (1)(a)(B) The **sole purpose** of this **new equipment** is to reduce a substantial quantity of nonpoint source pollution.

ORS 468.155 (2)(b)
OAR 340-016-0060 (4)(h)(C) The **nonpoint source pollution reduction** is accomplished by the use of a wood chipper to reduce openly burned woody debris.

ORS 468.173 (3) The maximum tax credit available to the applicant is **35%** because construction of the facility commenced after January 1, 2002.

Timeliness of Application

The application was submitted within the one year filing period of the 2001 edition of ORS 468.165 (6).

Purchase Date

05/24/2002

Application Received

07/25/2002

Facility Cost

Claimed Cost	_____	\$999
Eligible Cost		\$999

An invoice substantiated the facility cost.

Facility Cost Allocable to Pollution Control

The only factor used in determining that **100%** of the cost of the wood chipper is allocable to air pollution control is the percentage of time the facility is used for pollution control.

Compliance and Other Tax Credits

The facility is in compliance with Department rules and statutes and with EQC orders. No DEQ permits have been issued to the applicant at this location. No other tax credits have been issued to the applicant.

Reviewer: Maggie Vandehey, DEQ



State of Oregon
Department of
Environmental
Quality

Tax Credit Review Report

Director's Recommendation:	Approve
Applicant	Glen A. Mick
Application No.	6230
Facility Cost	\$2,450
Percentage Allocable	100%
Maximum Tax Credit	35%
Useful Life	2 years

Pollution Control Facility: NPS

Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0080

Applicant Identification

Organized as: **Individual**

The applicant's address is:

**PO Box 104
Gales Creek, OR 97117**

Facility Identification

The applicant identified the facility as:

**BearCat Model 70554 PTO woodchipper,
Serial # 201251**

The applicant is the owner of the **mobile** facility
garaged at:

**11310 NW Parsons Road
Forest Grove, OR 97117**

Eligibility

ORS 468.155 (1)(a)(B) The **sole purpose** of this **new equipment** is to reduce a substantial quantity of nonpoint source pollution.

ORS 468.155 (2)(b) The **nonpoint source pollution reduction** is accomplished by the use of a wood chipper to reduce openly burned woody debris.
OAR 340-016-0060 (4)(h)(C)

ORS 468.173 (3) The maximum tax credit available to the applicant is **35%** because construction of the facility commenced after January 1, 2002.

Timeliness of Application

The application was submitted within the one year filing period of the 2001 edition of ORS 468.165 (6).

Purchase Date

07/19/2002

Application Received

07/26/2002

Facility Cost

Claimed Cost	<u>\$2,450</u>
Eligible Cost	\$2,450

An invoice substantiated the facility cost.

Facility Cost Allocable to Pollution Control

The only factor used in determining that **100%** of the cost of the wood chipper is allocable to air pollution control is the percentage of time the facility is used for pollution control.

Compliance and Other Tax Credits

The facility is in compliance with Department rules and statutes and with EQC orders. No DEQ permits have been issued to the applicant at this location. No other tax credits have been issued to the applicant.

Reviewer: Maggie Vandehey, DEQ

Eligible Water Pollution Control Facilities

The department recommends the EQC issue a certificate to **one** water pollution control facility. The facility has a **principal purpose**, meaning it complies with an EPA requirement to prevent, control, or reduce water pollution. The water pollution control is accomplished by the disposal or elimination of industrial waste and the use of treatment works for industrial waste as defined in ORS 468B.005.

The facility replaced a previously certified facility to meet the Oil Pollution Prevention requirements of the federal Environmental Protection Agency. The new facility is eligible to be certified for the like-for-like replacement cost of the original facility as provided under ORS 468.155(3)(e)(A).

ORS 468.155 (3) provides that a "pollution control facility" or "facility" does not include...(e) Replacement or reconstruction of all or a part of any facility for which a pollution control facility certificate has previously been issued under ORS 468.170, except:

(A) If the cost to replace or reconstruct the facility is greater than the like-for-like replacement cost of the original facility due to a requirement imposed by the department, the federal Environmental Protection Agency or a regional air pollution authority, then the facility may be eligible for tax credit certification up to an amount equal to the difference between the cost of the new facility and the like-for-like replacement cost of the original facility...

ORS 340-016-0010(6) defines "Like-for-Like Replacement Cost" as the current price of providing a new facility of the same type, size and construction materials as the facility that is being replaced based upon the Consumer Price Index (CPI) - All Urban Consumers as published by the Bureau of Labor Statistics.



State of Oregon
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Directors	
Recommendation:	Approve - Replacement
Applicant	Portland General Electric Company
Application No.	6219
Facility Cost	\$45,894
Percentage Allocable	100%
Maximum Tax Credit	50%
Useful Life	10 years

Tax Credit Review Report

Pollution Control Facility: Water

Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0080

Applicant Identification

Organized As: **C Corp**

Business: **Electrical utility**

Taxpayer ID: **93-0256820**

The applicant's address is:

**121 SW Salmon Street
Portland, OR 97204**

Facility Identification

The certificate will identify the facility as:

Oil spill containment system

The applicant is the Owner/Operator of the facility located at:

**Round Butte Plant
726 SW Lower Bend Road
Madras, OR 97741**

Technical Information

The applicant installed an oil-containment system for the three main transformers located at the Round Butte plant. The facility consists of a 75' -0" x 98' -6" asphalt pad sloped to 2.1 % with an 8-inch high curb around the perimeter. The applicant claimed two catch basins located on the lower slope of the pad with drainage to the claimed oil-retention pond located outside of the switchyard. The retention pond is lined with an XR-5 style 8130 membrane that is impervious to oil. The pond has the capacity to hold the entire contents of one of the main transformers (9,470 gallons of transformer oil) plus a precipitation allowance for 72 hours. Prior to the facility being installed any spills would have gone directly to the cinder surface of the switchyard then to the underlying soil and ground water. The grade beyond the switchyard drains west to Lake Billy Chinook and northwest to the Deschutes River.

Eligibility

ORS 468.155 The **principal purpose** of the **installation** is to control water pollution. The federal (1)(a)(A) Environmental Protection Agency imposes the requirement at 40 CFR part 112 (Oil Pollution Prevention.)

ORS 468.155 The elimination of industrial wastewater is accomplished with an **oil spill**

(1)(b)(A) **containment pad** that meets the definition in ORS 468B.005 of an industrial water treatment works.

ORS 468.155 **Replacement:** The EQC certified a sand-berm for spill containment at the same location in January of 1986 on Certificate# 1908 in the amount of \$19,361. The new geomembrane and containment pit meet the EPA requirements in 40 CFR part 112.5 and is thereby eligible for the like-for-like replacement cost.

ORS 468.173 (1) The maximum tax credit available to the applicant is **50%** because the facility was completed under the 1999 edition.
OAR 340-016-0007

Timeliness of Application

The application was submitted within the two-year filing period of the 1999 edition and the one-year filing period of the 2001 edition of ORS 468.165 (6).

<i>Construction Started</i>	06/06/2000
<i>Construction Completed</i>	07/23/2001
<i>Facility Placed into Operation</i>	07/23/2001
<i>Application Received</i>	07/22/2002

Facility Cost

Claimed Cost		\$77,216
The applicant correctly calculated the like-for-like replacement cost based on Consumer Price Index (CPI) as described in Department guidance.		
1986 facility cost	\$ 19,361	
Like for like factor	<u>x 1.6178</u>	
	\$ 31,322	<u>31,322</u>
Eligible Cost		\$45,894

Copies of invoices substantiated the claimed facility cost.

Facility Cost Allocable to Pollution Control

The only factor used in determining that **100%** of the claimed facility cost is allocable to pollution control is the percentage of time the facility is used for pollution control. ORS 468.190 (3)

Compliance and Other Tax Credits

The applicant states that the facility is in compliance with Department rules and statutes and with EQC orders. No DEQ permits have been issued to that applicant at the Madras location. The EQC issued Portland General Electric Company eight certificates to facilities at this location.

Reviewers: Maggie Vandehey

Attachment C

Denial

The Department presents **one** application for denial. The applicant claimed a furnace and a boiler as a material recovery facility because they burn used oil. The applicant states that the claimed facility is used "to heat the company's lunchroom, shop and propagation buildings." The definition of a material recovery facility under ORS 340-016-0010 (7) excludes used oil that is used for its heat content.

- (7) "Material Recovery" means any process, such as pre-segregation, for obtaining materials from solid waste, hazardous waste or used oil. The recovered materials shall still have useful physical or chemical properties after serving a specific purpose and can, therefore, be reused or recycled for the same or other purpose. The recovered material shall have useful physical or chemical properties that yield a competitive end-product of real economic value. The material recovery process does not include processes:
- (a) In which the major purpose is the production of fuel from solid waste, hazardous waste or used oil which can be utilized for heat content or other forms of energy; or
 - (b) That burns waste to produce energy or to reduce the amount of waste. However, it does not eliminate from eligibility a pollution control device associated with a process which burns waste if such device is otherwise eligible for pollution control tax credit under these rules.



State of Oregon
Department of
Environmental
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Tax Credit Review Report

Pollution Control Facility: Material Recovery

Final Certification

ORS 468.150 -- 468.190

OAR 340-016-0005 -- 340-016-0080

Applicant Identification

Organized As: **S Corp**

Business: **Wholesaler of trees and
shrubs**

Taxpayer ID: **93-0706047**

The applicant's address is:

**11251 SE 232nd Avenue
Gresham, OR 97080**

Technical Information

The applicant claimed a furnace and a boiler that burns waste oil from the applicant's machinery and equipment. The furnace and the boiler are used to heat the company's lunchroom, shop and propagation buildings.

Directors

Recommendation:

Deny -

Ineligible Facility

Applicant **Leo Gentry Wholesale Nursery, Inc.**

Application No. **5850**

Claimed Facility Cost **\$21,611**

Claimed Percentage Allocable **100%**

Maximum Tax Credit **50%**

Useful Life **7 years**

Facility Identification

The applicant identified the facility as:

**One OMNI furnace, Model EH-
OWH250; One OMNI Waste oil boiler
Model no. OWB-50**

The applicant is the owner and operator of the
facility located at:

**11251 SE 232nd Avenue
Gresham, OR 97080**

Eligibility

OAR 340-016-0010(7) Burning used oil fails to meet the definition of "Material Recovery." Material recovery means any process for obtaining materials from used oil. The recovered materials must still have useful physical or chemical properties that can be reused or recycled for the same purpose or for another purpose. The useful physical or chemical properties must yield a competitive end-product of real economic value. Specifically excluded from the definition of a material recovery is any process:

- In which the major purpose is the production of fuel from used oil that can be used for its heat content or other forms of energy; or
- That burns waste to produce energy or to reduce the amount of waste.

The major purpose of the furnace and boiler is to burn waste oil for its heat content.

Timeliness of Application

The application was filed within 2 years of the construction completion date.

<i>Construction Started</i>	12/03/1999
<i>Construction Completed</i>	02/08/2000
<i>Facility Placed into Operation</i>	02/08/2000
<i>Application Received</i>	11/28/2001

Facility Cost

Claimed Cost	<u>\$21,611.00</u>
Eligible Cost	\$ 0

Compliance and Other Tax Credits

The applicant states that the facility is in compliance with Department rules and statutes and with EQC orders. There were no DEQ permits issued to this facility. The EQC has not issued any tax credit certificates to Leo Gentry Wholesale Nursery, Inc.

Reviewer: Maggie Vandehey, DEQ

Attachment D

Transfers

The Department recommends the EQC transfer **18** certificates from Truax Harris Energy LLC to Cascade Energy LLC. The original certificate holder transferred the retail service stations represented on the attached certificates to Cascade Energy LLC on January 3, 2002.

The EQC's approval to transfer these certificates includes the revocation of the certificates issued to Truax Harris Energy LLC. It also includes the re-certification of the facilities to Cascade Energy LLC. The new owner will continue to operate the facilities according to the conditions of the EQC's original certification. The effective date of the transfer is the date of sale.

A summary of the certificates, the transfer request, a copy of the Bill of Sale, and copies of the certificates are attached.

Cascade Energy LLC
Oregon Pollution Tax Credits Transferred

Certificate Number		Date of Certificate	Facility Cost	Transferor Information			Annual Tax Credit	No. of Years Previously Claimed
				Pollution Control Percentage	Cost Allocated to Pollution	Life		
3388	1720 N Highway 99W, McMinnville	12/2/1994	\$ 17,361.00	96%	\$ 16,666.56	10	\$ 833.33	8
3407	17455 S.W. TV Highway, Aloha	12/2/1994	112,399.00	87%	97,787.13	10	4,889.36	8
3408	6820 N.E. Fessenden, Portland	12/2/1994	121,967.00	88%	107,330.96	10	5,366.55	8
3409	2585 River Road, Eugene	12/2/1994	182,997.00	93%	170,187.21	10	8,509.36	8
3411	7035 Nyberg Road, Tualatin	12/2/1994	99,362.00	87%	86,444.94	10	4,322.25	8
3412	28851 West 11th, Eugene	12/2/1994	219,570.00	93%	204,200.10	10	10,210.01	8
3413	1680 S.W. 3rd Street, Corvallis	12/2/1994	201,060.00	93%	186,985.80	10	9,349.29	8
3540	4292 Liberty Road, SE, Salem	11/17/1995	139,179.00	93%	129,436.47	10	6,471.82	7
3551	4124 Main Street, Springfield	11/17/1995	285,672.00	91%	259,961.52	10	12,998.08	7
3552	608 N. State Street, Lake Oswego	11/17/1995	154,331.00	94%	145,071.14	10	7,253.56	7
3684	2795 Market Street NE, Salem	11/14/1996	199,735.00	96%	191,745.60	10	9,587.28	6
3719	125 Washington Street SW, Dallas	12/31/1996	187,412.00	95%	178,041.40	10	8,902.07	6
3720	18777 SE McLoughlin, Milwaukie	12/31/1996	206,289.00	95%	195,974.55	10	9,798.73	6
3721	1720 N Hwy 99 W, McMinnville	12/31/1996	51,698.00	99%	51,181.02	10	2,559.05	5
3862	33558 Havlik Drive, Scappoose	12/30/1997	140,251.00	93%	130,433.43	10	6,521.67	5
4258	2485 Mission St. SE, Salem	12/20/1999	317,343.00	94%	298,302.42	10	14,915.12	3
4417	585 Wallace Road	12/1/2000	324,491.00	93%	301,776.63	10	15,088.83	2
4420	5829 NE MLK Blvd.	12/1/2000	304,129.00	96%	291,963.84	10	14,598.19	2
							<u>\$ 152,174.55</u>	



25115 S.W. Parkway
Post Office Box 607
Wilsonville, Oregon 97070-0607
Telephone (503) 682-3865
WATS: 1-800-367-3835
FAX: (503) 682-8726

May 2, 2002

Ms. Maggie Vandehey
Tax Credit Manager
Department of Environmental Quality
811 SW 6th Avenue
Portland, Oregon 97204

RE: Transfer of Pollution Control Facility Tax Credits

Dear Maggie Vandehey;

On January 3, 2002, Truax Harris Energy LLC contributed several retail service stations to Cascade Energy LLC. Cascade Energy LLC began operating the sites immediately.


The assets contributed to Cascade Energy LLC include the equipment, which had been previously approved by the State of Oregon Environmental Quality Commission as Pollution Control Facilities and qualified for the related tax credits. As required by Oregon Administrative Rules, these tax credits must be transferred to the entity that owns the assets. Therefore, we request that the Department of Environmental Quality approve the transfer of the Pollution Control Facility Certificates on the attached list to Cascade Energy LLC.

As supporting documents to this transfer request, we have enclosed the following documents:

1. Copies of all related Pollution Control Certificates
2. Copy of the bill of sale from Truax Harris Energy LLC to Cascade Energy LLC

Thank you for your assistance in this matter and if you have any questions, please do not hesitate to contact me.

Sincerely,


Larry Petrijanos
Chief Financial Officer

LP/bm
Enclosures

BILL OF SALE

Truax Harris Energy LLC, a California limited liability company, whose mailing address is 25115 S.W. Parkway, Wilsonville, Oregon 97070-0607 ("THE"), in consideration of Ten Dollars (\$10.00) and other good and valuable consideration, the receipt of which is hereby acknowledged, hereby sells and delivers to Cascade Energy LLC, a Delaware limited liability company, whose mailing address is 25115 S.W. Parkway, Wilsonville, Oregon 97070-0607 ("Purchaser"), the following personal property, equipment and fixtures owned by THE (collectively, the "Equipment") which is, or is to be, located on the THE service stations, more fully described on Exhibit A attached hereto (the "Premises").

All equipment and trade fixtures, including, but not limited to underground storage tanks, gasoline dispensers, submergible pumps, dispenser console, island lights, office furniture, shelving, lifts, air compressors, and area lights, it being the intent of the parties that Purchaser is acquiring any and all equipment associated with the use and operation of each site as a retail gasoline service station and convenience store property, to the extent owned by THE.

1. THE warrants that it is the owner of the above-described personal property, equipment and fixtures and that it has the right to sell the same.
2. **TRUAX HARRIS ENERGY LLC MAKES NO REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, WITH RESPECT TO THE PRESENT CONDITION OR STATE OF REPAIR OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR SUITABILITY FOR PURCHASER'S INTENDED USE OR FOR ANY USE WHATSOEVER OF THE PERSONAL PROPERTY, EQUIPMENT AND FIXTURES WHOSE CONVEYANCE IS EVIDENCED BY THIS BILL OF SALE, INCLUDING, BUT NOT LIMITED TO, ANY UNDERGROUND TANKS AND LIFTS IDENTIFIED HEREINABOVE.**
3. Purchaser has inspected all personal property, equipment and fixtures identified in this Bill of Sale, is familiar with the condition, properties and capabilities of such items and accepts the same **AS IS, AND IN THE PRESENT CONDITION, WHATEVER THAT CONDITION MAY BE.** Purchaser acknowledges that there may be tanks, piping or other personal property, equipment and fixtures buried under the Premises which Purchaser has chosen not to inspect and Purchaser accepts the same **AS IS, AND IN**

THE PRESENT CONDITION, WHATEVER THAT CONDITION MAY BE.

4. Because the personal property, equipment and fixtures described above and/or existing on the Premises may have been used for products or materials that contained lead or other hazardous substances, Purchaser is further **WARNED AGAINST ANY FUTURE USE OF SUCH PERSONAL PROPERTY, EQUIPMENT AND FIXTURES FOR THE STORAGE OF LIQUIDS OR SUBSTANCES DESTINED FOR HUMAN OR ANIMAL CONSUMPTION.**

5. Purchaser is further **WARNED THAT ANY UNDERGROUND TANKS, DESCRIBED ABOVE AS PERSONAL PROPERTY, EQUIPMENT AND FIXTURES AND/OR EXISTING ON THE PREMISES, MAY HAVE OR DEVELOP CERTAIN DEFICIENCIES, RELATED BUT NOT LIMITED TO, SUCH UNDERGROUND TANKS' RELIABILITY FACTOR; SUCH UNDERGROUND TANKS' WALL STRENGTH; AND SUCH UNDERGROUND TANKS' STRIKER PLATE, IF ANY, SUCH THAT THIS MAY RESULT IN SUCH UNDERGROUND TANKS BUCKLING, CREEPING, DEFLECTING, CRACKING, BREAKING, OR FAILING AND RESULTING IN UNDERGROUND TANK OR LINE LEAKS. PURCHASER ACKNOWLEDGES THAT PURCHASER HAS BEEN GIVEN THE OPPORTUNITY TO INSPECT SUCH UNDERGROUND TANKS, AND THAT THE PURCHASE AND SALE OF SUCH UNDERGROUND TANKS IS SPECIFICALLY MADE SUBJECT TO THIS WARNING AND TO THE PROVISIONS OF PARAGRAPHS 2, 3 AND 4 OF THIS BILL OF SALE.**

6. Purchaser is also **WARNED THAT IF THE UNDERGROUND TANKS, DESCRIBED ABOVE AS PERSONAL PROPERTY, EQUIPMENT AND FIXTURES AND/OR EXISTING ON THE PREMISES, WERE MANUFACTURED IN OR PRIOR TO 1986, SUCH UNDERGROUND TANKS MAY NOT BE COMPATIBLE WITH CERTAIN TYPES OF FUEL, FUEL ADDITIVES OR CHEMICALS. SUCH UNDERGROUND TANKS SHOULD NOT BE PLACED IN SERVICE PRIOR TO ASCERTAINING THEIR COMPATIBILITY WITH THE FUELS, FUEL ADDITIVES, CHEMICALS OR OTHER PRODUCTS TO BE PLACED THEREIN. PURCHASER ACKNOWLEDGES THAT PURCHASER HAS BEEN GIVEN THE OPPORTUNITY TO INSPECT SUCH UNDERGROUND TANKS, AND THAT THE PURCHASE AND SALE OF SUCH UNDERGROUND TANKS IS SPECIFICALLY MADE**

**SUBJECT TO THIS WARNING AND TO THE PROVISIONS OF
PARAGRAPH 2, 3, 4 AND 5 HEREOF.**

7. By acceptance of this conveyance and as part of the consideration thereof, the Purchaser agrees to assume all risks involved in connection with all personal property, equipment and fixtures identified hereinabove and agrees to indemnify, defend and hold harmless THE, and its members, officers, employees, subsidiaries and affiliates, of and from any and all claims or causes of action, damages, liabilities, costs and expenses (including attorney's fees), arising out of the present or future condition of said personal property, equipment and fixtures or any use made thereof, whether for injury or death or damage or destruction of property. Throughout this Bill of Sale, the reference to "affiliates" of THE means entities directly or indirectly owned, in whole or in part, by THE or directly or indirectly having any ownership interest in THE, or with respect to those entities having any ownership interest in THE, any entities they own, directly or indirectly, in whole or in part.

8. **NOTWITHSTANDING ANY PROVISION TO THE CONTRARY IN THIS AGREEMENT, IF THERE IS ANY CONFLICT, INCONSISTENCY OR OVERLAP BETWEEN SUCH PROVISIONS AND SIMILAR PROVISIONS OF THE LLC AGREEMENT OF CASCADE, CONTRIBUTION AGREEMENT OF CASCADE AND THE OPERATION AND MANAGEMENT AGREEMENT BETWEEN CASCADE AND TRUAX HARRIS ENERGY LLC, THE PROVISIONS OF SUCH LLC AGREEMENT, CONTRIBUTION AGREEMENT OR OPERATION AND MANAGEMENT AGREEMENT SHALL TAKE PRECEDENCE OVER SUCH PROVISIONS OF THIS BILL OF SALE.**

IN WITNESS WHEREOF, THE and Purchaser have caused this Bill of Sale to be duly executed effective January 3, 2002.

WITNESS:

Matt Bergman
JB

TRUAX HARRIS ENERGY LLC,
a California limited liability company

By: David Harris

Name: DAVID L HARRIS

Its: President

WITNESS:

Matt Bergman
JB

CASCADE ENERGY LLC,
a Delaware limited liability company

By: TRUAX HARRIS ENERGY LLC, a
California limited liability company, as
Operator

By: David Harris

Name: DAVID L HARRIS

Its: President

EXHIBIT A

The service stations located at the following addresses:

Site No.	Address
1-T	125 Washington S.W. Dallas, Oregon
2-T	25715 Salmon River Hwy Willamina, Oregon
3-T	6085 W. 11 th Ave. Eugene, Oregon
4-T	608 N. State Street Lake Oswego, Oregon
5-T	2795 Market Street, N.E. Salem, Oregon
6-T	17455 SW Tualatin Valley Hwy. Aloha, Oregon
7-T	1680 SW 3 rd St. Corvallis, Oregon
8-T	6820 N. Fessenden Portland, Oregon
9-T	18777 SE McLoughlin Milwaukie, Oregon
10-T	1720 N. Hwy 99 West McMinnville, Oregon
11-T	2485 Mission Street, SE Salem, Oregon
12-T	33510 Highway 58 Pleasant Hill, Oregon

13-T	2585 River Road Eugene, Oregon
14-T	33558 Havlik Drive Scappoose, Oregon
15-T	4395 Commercial St., SE Salem, Oregon
16-T	4124 Main Street Springfield, Oregon
17-T	4292 Liberty Rd., S Salem, Oregon
18-T	303 Pacific Ave. Tillamook, Oregon
19-T	7035 Nyberg Road Tualatin, Oregon
20-T	3175 W. 11 th Ave. Eugene, Oregon
21-T	585 Wallace Rd., NW Salem, Oregon
22-T	2995 Newberg Rd. Woodburn, Oregon
23-T	32959 Van Dуйn Rd. Eugene, Oregon
24-T	5829 NE MLK Jr. Blvd. Portland, Oregon

STATE OF OREGON
DEPARTMENT OF ENVIRONMENTAL QUALITY
POLLUTION CONTROL FACILITY CERTIFICATE

Certificate No: 3388
Date of Issue: 12/2/94
Application No: 4279

ISSUED TO:
Truax Harris Energy Co.
P.O. Box 607
Wilsonville, Oregon 97070

LOCATION OF POLLUTION CONTROL FACILITY:

1720 N. Hwy 99 W
McMinnville

fac. 7172

ATTENTION: Rob Forrest

AS: LESSEE OWNER INDIV PARTNER CORP NON-PROFIT CO-OP

DESCRIPTION OF POLLUTION CONTROL FACILITY:
Tank gauge with alarm.

TYPE OF POLLUTION CONTROL FACILITY:
 AIR NOISE WATER SOLID WASTE HAZARDOUS WASTE USED OIL

DATE FACILITY COMPLETED: 4/15/94 PLACED INTO OPERATION: 4/15/94

ACTUAL COST OF POLLUTION CONTROL FACILITY: \$17,361.00

PERCENT OF ACTUAL COST PROPERLY ALLOCABLE TO POLLUTION CONTROL: 96%

Based upon the information contained in the application referenced above, the Environmental Quality Commission certifies that the facility described herein was erected, constructed or installed in accordance with the requirements of subsection (1) of ORS 468.165, and is designed for, and is being operated or will operate to a substantial extent for the purpose of preventing, controlling or reducing air, water or noise pollution or solid waste, hazardous wastes or used oil, and that it is necessary to satisfy the intents and purposes of ORS Chapters 454, 459, 467 and 468 and rules adopted thereunder.

Therefore, this Pollution Control Facility Certificate is issued this date subject to compliance with the statutes of the State of Oregon, the regulations of the Department of Environmental Quality and the following special conditions:

1. The facility shall be continuously operated at maximum efficiency for the designed purpose of preventing, controlling, and reducing the type of pollution as indicated above.
2. The Department of Environmental Quality shall be immediately notified of any proposed change in use or method of operation of the facility and if, for any reason, the facility ceases to operate for its intended pollution control purpose.
3. Any reports or monitoring data requested by the Department of Environmental Quality shall be promptly provided.

NOTE: The facility described herein is not eligible to receive tax credit certification as an Energy Conservation Facility under the provisions of Chapter 512, Oregon Law 1979, if the person issued the Certificate elects to take the tax credit relief under ORS 316.097 or 317.072.

Signed: William W. Wessinger (William W. Wessinger, Chairman)

Approved by the Environmental Quality Commission on the 2nd day of December, 1994.

STATE OF OREGON
DEPARTMENT OF ENVIRONMENTAL QUALITY
POLLUTION CONTROL FACILITY CERTIFICATE

Certificate No: 3407
Date of Issue: 12/2/94
Application No: 4311

ISSUED TO:
Truax Harris Energy Company
P.O. Box 607
Wilsonville, Oregon 97070

LOCATION OF POLLUTION CONTROL FACILITY:

17455 SW TV Hwy
Aloha

ATTENTION: Rob Forrest

fac. 7166

AS: LESSEE OWNER INDIV PARTNER CORP NON-PROFIT CO-OP

DESCRIPTION OF POLLUTION CONTROL FACILITY:

Three doublewall fiberglass tanks and flexible doublewall piping, spill containment basins, upgrade for tank gauge system, overfill alarm, monitoring wells, sumps and Stage I and II vapor recovery equipment.

TYPE OF POLLUTION CONTROL FACILITY:

AIR NOISE WATER SOLID WASTE HAZARDOUS WASTE USED OIL

DATE FACILITY COMPLETED: 2/5/94

PLACED INTO OPERATION: 2/5/94

ACTUAL COST OF POLLUTION CONTROL FACILITY: \$112,399.00

PERCENT OF ACTUAL COST PROPERLY ALLOCABLE TO POLLUTION CONTROL: 87%

Based upon the information contained in the application referenced above, the Environmental Quality Commission certifies that the facility described herein was erected, constructed or installed in accordance with the requirements of subsection (1) of ORS 468.165, and is designed for, and is being operated or will operate to a substantial extent for the purpose of preventing, controlling or reducing air, water or noise pollution or solid waste, hazardous wastes or used oil, and that it is necessary to satisfy the intents and purposes of ORS Chapters 454, 459, 467 and 468 and rules adopted thereunder.

Therefore, this Pollution Control Facility Certificate is issued this date subject to compliance with the statutes of the State of Oregon, the regulations of the Department of Environmental Quality and the following special conditions:

1. The facility shall be continuously operated at maximum efficiency for the designed purpose of preventing, controlling, and reducing the type of pollution as indicated above.
2. The Department of Environmental Quality shall be immediately notified of any proposed change in use or method of operation of the facility and if, for any reason, the facility ceases to operate for its intended pollution control purpose.
3. Any reports or monitoring data requested by the Department of Environmental Quality shall be promptly provided.

NOTE: The facility described herein is not eligible to receive tax credit certification as an Energy Conservation Facility under the provisions of Chapter 512, Oregon Law 1979, if the person issued the Certificate elects to take the tax credit relief under ORS 316.097 or 317.072.

Signed: William W. Wessinger (William W. Wessinger, Chairman)

Approved by the Environmental Quality Commission on the 2nd day of December, 1994.

STATE OF OREGON
DEPARTMENT OF ENVIRONMENTAL QUALITY
POLLUTION CONTROL FACILITY CERTIFICATE

Certificate No: 3408
Date of Issue: 12/2/94
Application No: 4312

ISSUED TO:
Truax Harris Energy Company
P.O. Box 607
Wilsonville, Oregon 97070

LOCATION OF POLLUTION CONTROL FACILITY:

6820 N Fessenden
Portland

fac. 6709

ATTENTION: Rob Forrest

AS: LESSEE OWNER INDIV PARTNER CORP NON-PROFIT CO-OP

DESCRIPTION OF POLLUTION CONTROL FACILITY:
Three doublewall fiberglass tanks and flexible doublewall piping, tank gauge system, monitoring wells, sumps and Stage I and II vapor recovery equipment.

TYPE OF POLLUTION CONTROL FACILITY:
 AIR NOISE WATER SOLID WASTE HAZARDOUS WASTE USED OIL

DATE FACILITY COMPLETED: 4/1/93 PLACED INTO OPERATION: 4/1/93

ACTUAL COST OF POLLUTION CONTROL FACILITY: \$121,967.00

PERCENT OF ACTUAL COST PROPERLY ALLOCABLE TO POLLUTION CONTROL: 88%

Based upon the information contained in the application referenced above, the Environmental Quality Commission certifies that the facility described herein was erected, constructed or installed in accordance with the requirements of subsection (1) of ORS 468.165, and is designed for, and is being operated or will operate to a substantial extent for the purpose of preventing, controlling or reducing air, water or noise pollution or solid waste, hazardous wastes or used oil, and that it is necessary to satisfy the intents and purposes of ORS Chapters 454, 459, 467 and 468 and rules adopted thereunder.

Therefore, this Pollution Control Facility Certificate is issued this date subject to compliance with the statutes of the State of Oregon, the regulations of the Department of Environmental Quality and the following special conditions:

1. The facility shall be continuously operated at maximum efficiency for the designed purpose of preventing, controlling, and reducing the type of pollution as indicated above.
2. The Department of Environmental Quality shall be immediately notified of any proposed change in use or method of operation of the facility and if, for any reason, the facility ceases to operate for its intended pollution control purpose.
3. Any reports or monitoring data requested by the Department of Environmental Quality shall be promptly provided.

NOTE: The facility described herein is not eligible to receive tax credit certification as an Energy Conservation Facility under the provisions of Chapter 512, Oregon Law 1979, if the person issued the Certificate elects to take the tax credit relief under ORS 316.097 or 317.072.

Signed: William W. Wessinger (William W. Wessinger, Chairman)

Approved by the Environmental Quality Commission on the 2nd day of December, 1994.

STATE OF OREGON
DEPARTMENT OF ENVIRONMENTAL QUALITY
POLLUTION CONTROL FACILITY CERTIFICATE

Certificate No: 3409
Date of Issue: 12/2/94
Application No: 4313

ISSUED TO:

Truax Harris Energy Company
P.O. Box 607
Wilsonville, Oregon 97070

ATTENTION: Rob Forrest

LOCATION OF POLLUTION CONTROL FACILITY:

2585 River Road
Eugene

fac. 5996

AS: LESSEE OWNER INDIV PARTNER CORP NON-PROFIT CO-OP

DESCRIPTION OF POLLUTION CONTROL FACILITY:

Three doublewall fiberglass tanks and flexible doublewall piping, spill containment basins, upgrade for tank gauge system, monitoring wells, sumps, turbine leak detectors, oil/water separator and Stage I vapor recovery.

TYPE OF POLLUTION CONTROL FACILITY:

AIR NOISE WATER SOLID WASTE HAZARDOUS WASTE USED OIL

DATE FACILITY COMPLETED: 10/1/93

PLACED INTO OPERATION: 10/1/93

ACTUAL COST OF POLLUTION CONTROL FACILITY: \$182,997.00

PERCENT OF ACTUAL COST PROPERLY ALLOCABLE TO POLLUTION CONTROL: 93%

Based upon the information contained in the application referenced above, the Environmental Quality Commission certifies that the facility described herein was erected, constructed or installed in accordance with the requirements of subsection (1) of ORS 468.165, and is designed for, and is being operated or will operate to a substantial extent for the purpose of preventing, controlling or reducing air, water or noise pollution or solid waste, hazardous wastes or used oil, and that it is necessary to satisfy the intents and purposes of ORS Chapters 454, 459, 467 and 468 and rules adopted thereunder.

Therefore, this Pollution Control Facility Certificate is issued this date subject to compliance with the statutes of the State of Oregon, the regulations of the Department of Environmental Quality and the following special conditions:

1. The facility shall be continuously operated at maximum efficiency for the designed purpose of preventing, controlling, and reducing the type of pollution as indicated above.
2. The Department of Environmental Quality shall be immediately notified of any proposed change in use or method of operation of the facility and if, for any reason, the facility ceases to operate for its intended pollution control purpose.
3. Any reports or monitoring data requested by the Department of Environmental Quality shall be promptly provided.

NOTE: The facility described herein is not eligible to receive tax credit certification as an Energy Conservation Facility under the provisions of Chapter 512, Oregon Law 1979, if the person issued the Certificate elects to take the tax credit relief under ORS 316.097 or 317.072.

Signed: William W. Wessinger (William W. Wessinger, Chairman)

Approved by the Environmental Quality Commission on the 2nd day of December, 1994.

STATE OF OREGON
DEPARTMENT OF ENVIRONMENTAL QUALITY
POLLUTION CONTROL FACILITY CERTIFICATE

Certificate No: 3411
Date of Issue: 12/2/94
Application No: 4315

ISSUED TO:
Truax Harris Energy Company
P.O. Box 607
Wilsonville, Oregon 97070

LOCATION OF POLLUTION CONTROL FACILITY:

7035 Nyberg Road
Tualatin

ATTENTION: Rob Forrest

fac. 6580

AS: LESSEE OWNER INDIV PARTNER CORP NON-PROFIT CO-OP

DESCRIPTION OF POLLUTION CONTROL FACILITY:

Three doublewall fiberglass tanks and flexible doublewall piping, monitoring wells, sumps and Stage I and II vapor recovery equipment.

TYPE OF POLLUTION CONTROL FACILITY:

AIR NOISE WATER SOLID WASTE HAZARDOUS WASTE USED OIL

DATE FACILITY COMPLETED: 2/15/93

PLACED INTO OPERATION: 2/15/93

ACTUAL COST OF POLLUTION CONTROL FACILITY: \$99,362.00

PERCENT OF ACTUAL COST PROPERLY ALLOCABLE TO POLLUTION CONTROL: 87%

Based upon the information contained in the application referenced above, the Environmental Quality Commission certifies that the facility described herein was erected, constructed or installed in accordance with the requirements of subsection (1) of ORS 468.165, and is designed for, and is being operated or will operate to a substantial extent for the purpose of preventing, controlling or reducing air, water or noise pollution or solid waste, hazardous wastes or used oil, and that it is necessary to satisfy the intents and purposes of ORS Chapters 454, 459, 467 and 468 and rules adopted thereunder.

Therefore, this Pollution Control Facility Certificate is issued this date subject to compliance with the statutes of the State of Oregon, the regulations of the Department of Environmental Quality and the following special conditions:

1. The facility shall be continuously operated at maximum efficiency for the designed purpose of preventing, controlling, and reducing the type of pollution as indicated above.
2. The Department of Environmental Quality shall be immediately notified of any proposed change in use or method of operation of the facility and if, for any reason, the facility ceases to operate for its intended pollution control purpose.
3. Any reports or monitoring data requested by the Department of Environmental Quality shall be promptly provided.

NOTE: The facility described herein is not eligible to receive tax credit certification as an Energy Conservation Facility under the provisions of Chapter 512, Oregon Law 1979, if the person issued the Certificate elects to take the tax credit relief under ORS 316.097 or 317.072.

Signed:  (William W. Wessinger, Chairman)

Approved by the Environmental Quality Commission on the 2nd day of December, 1994.

STATE OF OREGON
DEPARTMENT OF ENVIRONMENTAL QUALITY
POLLUTION CONTROL FACILITY CERTIFICATE

Certificate No: 3412
Date of Issue: 12/2/94
Application No: 4316

ISSUED TO:

Truax Harris Energy Company
P.O. Box 607
Wilsonville, Oregon 97070

LOCATION OF POLLUTION CONTROL FACILITY:

28851 West 11th
Eugene

ATTENTION: Rob Forrest

fac. 318

AS: LESSEE OWNER INDIV PARTNER CORP NON-PROFIT CO-OP

DESCRIPTION OF POLLUTION CONTROL FACILITY:

Three doublewall fiberglass tanks and flexible doublewall piping, spill containment basins, tank gauge system with overfill alarm, turbine leak detectors, monitoring wells, sumps, oil/water separator and Stage I and II vapor recovery equipment.

TYPE OF POLLUTION CONTROL FACILITY:

AIR NOISE WATER SOLID WASTE HAZARDOUS WASTE USED OIL

DATE FACILITY COMPLETED: 9/1/94

PLACED INTO OPERATION: 9/1/94

ACTUAL COST OF POLLUTION CONTROL FACILITY: \$219,570.00

PERCENT OF ACTUAL COST PROPERLY ALLOCABLE TO POLLUTION CONTROL: 93%

Based upon the information contained in the application referenced above, the Environmental Quality Commission certifies that the facility described herein was erected, constructed or installed in accordance with the requirements of subsection (1) of ORS 468.165, and is designed for, and is being operated or will operate to a substantial extent for the purpose of preventing, controlling or reducing air, water or noise pollution or solid waste, hazardous wastes or used oil, and that it is necessary to satisfy the intents and purposes of ORS Chapters 454, 459, 467 and 468 and rules adopted thereunder.

Therefore, this Pollution Control Facility Certificate is issued this date subject to compliance with the statutes of the State of Oregon, the regulations of the Department of Environmental Quality and the following special conditions:

1. The facility shall be continuously operated at maximum efficiency for the designed purpose of preventing, controlling, and reducing the type of pollution as indicated above.
2. The Department of Environmental Quality shall be immediately notified of any proposed change in use or method of operation of the facility and if, for any reason, the facility ceases to operate for its intended pollution control purpose.
3. Any reports or monitoring data requested by the Department of Environmental Quality shall be promptly provided.

NOTE: The facility described herein is not eligible to receive tax credit certification as an Energy Conservation Facility under the provisions of Chapter 512, Oregon Law 1979, if the person issued the Certificate elects to take the tax credit relief under ORS 316.097 or 317.072.

Signed: William W. Wessinger (William W. Wessinger, Chairman)

Approved by the Environmental Quality Commission on the 2nd day of December, 1994.

STATE OF OREGON
DEPARTMENT OF ENVIRONMENTAL QUALITY

POLLUTION CONTROL FACILITY CERTIFICATE

Certificate No: 3413
Date of Issue: 12/2/94
Application No: 4317

ISSUED TO:
Truax Harris Energy Company
P.O. Box 607
Wilsonville, Oregon 97070

LOCATION OF POLLUTION CONTROL FACILITY:

1680 SW Third
Corvallis

ATTENTION: Rob Forrest

fac. 7156

AS: LESSEE OWNER INDIV PARTNER CORP NON-PROFIT CO-OP

DESCRIPTION OF POLLUTION CONTROL FACILITY:

Three doublewall fiberglass tanks and flexible doublewall piping, spill containment basins, tank gauge system, overfill alarm, turbine leak detectors, monitoring wells, sumps, oil/water separator and Stage I and II vapor recovery equipment/

TYPE OF POLLUTION CONTROL FACILITY:

AIR NOISE WATER SOLID WASTE HAZARDOUS WASTE USED OIL

DATE FACILITY COMPLETED: 8/1/94

PLACED INTO OPERATION: 8/1/94

ACTUAL COST OF POLLUTION CONTROL FACILITY: \$201,060.00

PERCENT OF ACTUAL COST PROPERLY ALLOCABLE TO POLLUTION CONTROL: 93%

Based upon the information contained in the application referenced above, the Environmental Quality Commission certifies that the facility described herein was erected, constructed or installed in accordance with the requirements of subsection (1) of ORS 468.165, and is designed for, and is being operated or will operate to a substantial extent for the purpose of preventing, controlling or reducing air, water or noise pollution or solid waste, hazardous wastes or used oil, and that it is necessary to satisfy the intents and purposes of ORS Chapters 454, 459, 467 and 468 and rules adopted thereunder.

Therefore, this Pollution Control Facility Certificate is issued this date subject to compliance with the statutes of the State of Oregon, the regulations of the Department of Environmental Quality and the following special conditions:

1. The facility shall be continuously operated at maximum efficiency for the designed purpose of preventing, controlling, and reducing the type of pollution as indicated above.
2. The Department of Environmental Quality shall be immediately notified of any proposed change in use or method of operation of the facility and if, for any reason, the facility ceases to operate for its intended pollution control purpose.
3. Any reports or monitoring data requested by the Department of Environmental Quality shall be promptly provided.

NOTE: The facility described herein is not eligible to receive tax credit certification as an Energy Conservation Facility under the provisions of Chapter 512, Oregon Law 1979, if the person issued the Certificate elects to take the tax credit relief under ORS 316.097 or 317.072.

Signed:  (William W. Wessinger, Chairman)

Approved by the Environmental Quality Commission on the 2nd day of December, 1994.

STATE OF OREGON
DEPARTMENT OF ENVIRONMENTAL QUALITY

Certificate No: 3540
Date of Issue: 11/17/95
Application No: 4366

POLLUTION CONTROL FACILITY CERTIFICATE

ISSUED TO:
Truax Harris Energy Company
PO Box 607
Wilsonville, Oregon 97070

LOCATION OF POLLUTION CONTROL FACILITY:
4292 Liberty Rd., SE
Salem
Fac. 8491

ATTENTION: Larry Petrjanos

AS: LESSEE OWNER INDIV PARTNER CORP NON-PROFIT CO-OP

DESCRIPTION OF POLLUTION CONTROL FACILITY:

The claimed pollution control facilities described in this application are two doublewall fiberglass tanks and piping, spill containment basins, tank gauge system with overfill alarm, turbine leak detectors, sumps, oil/water separator and Stage I vapor recovery equipment.

TYPE OF POLLUTION CONTROL FACILITY:

AIR NOISE WATER SOLID WASTE HAZARDOUS WASTE USED OIL

DATE FACILITY COMPLETED: 12/28/94

PLACED INTO OPERATION: 12/28/94

ACTUAL COST OF POLLUTION CONTROL FACILITY: \$139,179.00

PERCENT OF ACTUAL COST PROPERLY ALLOCABLE TO POLLUTION CONTROL: 93%

Based upon the information contained in the application referenced above, the Environmental Quality Commission certifies that the facility described herein was erected, constructed or installed in accordance with the requirements of subsection (1) of ORS 468.165, and is designed for, and is being operated or will operate to a substantial extent for the purpose of preventing, controlling or reducing air, water or noise pollution or solid waste, hazardous wastes or used oil, and that it is necessary to satisfy the intents and purposes of ORS Chapters 454, 459, 467 and 468 and rules adopted thereunder.

Therefore, this Pollution Control Facility Certificate is issued this date subject to compliance with the statutes of the State of Oregon, the regulations of the Department of Environmental Quality and the following special conditions:

1. The facility shall be continuously operated at maximum efficiency for the designed purpose of preventing, controlling, and reducing the type of pollution as indicated above.
2. The Department of Environmental Quality shall be immediately notified of any proposed change in use or method of operation of the facility and if, for any reason, the facility ceases to operate for its intended pollution control purpose.
3. Any reports or monitoring data requested by the Department of Environmental Quality shall be promptly provided.

NOTE: The facility described herein is not eligible to receive tax credit certification as an Energy Conservation Facility under the provisions of Chapter 512, Oregon Law 1979, if the person issued the Certificate elects to take the tax credit relief under ORS 316.097 or 317.072.

Signed: William W. Wessinger (William W. Wessinger, Chairman)

Approved by the Environmental Quality Commission on the 17th day of November, 1995.

STATE OF OREGON
DEPARTMENT OF ENVIRONMENTAL QUALITY
POLLUTION CONTROL FACILITY CERTIFICATE

Certificate No: 3551
Date of Issue: 11/17/95
Application No: 4419

ISSUED TO:
Truax Harris Energy Company
PO Box 607
Wilsonville, Oregon 97070

LOCATION OF POLLUTION CONTROL FACILITY:

4124 Main Street
Springfield

ATTENTION: Larry Petrjanos

Fac. No. 6445

AS: LESSEE OWNER INDIV PARTNER CORP NON-PROFIT CO-OP

DESCRIPTION OF POLLUTION CONTROL FACILITY:

The claimed pollution control facilities described in this application are five doublewall fiberglass tanks and piping, spill containment basins, tank gauge system with overfill alarm, automatic shutoff valves, turbine leak detectors, sumps, oil/water separator, monitoring wells and Stage I vapor recovery equipment.

TYPE OF POLLUTION CONTROL FACILITY:

AIR NOISE WATER SOLID WASTE HAZARDOUS WASTE USED OIL

DATE FACILITY COMPLETED: 2/1/95

PLACED INTO OPERATION: 2/1/95

ACTUAL COST OF POLLUTION CONTROL FACILITY: \$285,672.00

PERCENT OF ACTUAL COST PROPERLY ALLOCABLE TO POLLUTION CONTROL: 91%

Based upon the information contained in the application referenced above, the Environmental Quality Commission certifies that the facility described herein was erected, constructed or installed in accordance with the requirements of subsection (1) of ORS 468.165, and is designed for, and is being operated or will operate to a substantial extent for the purpose of preventing, controlling or reducing air, water or noise pollution or solid waste, hazardous wastes or used oil, and that it is necessary to satisfy the intents and purposes of ORS Chapters 454, 459, 467 and 468 and rules adopted thereunder.

Therefore, this Pollution Control Facility Certificate is issued this date subject to compliance with the statutes of the State of Oregon, the regulations of the Department of Environmental Quality and the following special conditions:

1. The facility shall be continuously operated at maximum efficiency for the designed purpose of preventing, controlling, and reducing the type of pollution as indicated above.
2. The Department of Environmental Quality shall be immediately notified of any proposed change in use or method of operation of the facility and if, for any reason, the facility ceases to operate for its intended pollution control purpose.
3. Any reports or monitoring data requested by the Department of Environmental Quality shall be promptly provided.

NOTE: The facility described herein is not eligible to receive tax credit certification as an Energy Conservation Facility under the provisions of Chapter 512, Oregon Law 1979, if the person issued the Certificate elects to take the tax credit relief under ORS 316.097 or 317.072.

Signed: William W. Wessinger (William W. Wessinger, Chairman)

Approved by the Environmental Quality Commission on the 17th day of November, 1995.

STATE OF OREGON
DEPARTMENT OF ENVIRONMENTAL QUALITY
POLLUTION CONTROL FACILITY CERTIFICATE

Certificate No: 3552
Date of Issue: 11/17/95
Application No: 4420

ISSUED TO:
Truax Harris Energy Company
PO Box 607
Wilsonville, Oregon 97070

LOCATION OF POLLUTION CONTROL FACILITY:
608 N. State Street
Lake Oswego
Fac. 4924

ATTENTION: Larry Petrjanos

AS: LESSEE OWNER INDIV PARTNER CORP NON-PROFIT CO-OP

DESCRIPTION OF POLLUTION CONTROL FACILITY:

The claimed pollution control facilities described in this application are five doublewall fiberglass tanks and piping, spill containment basins, tank gauge system with overfill alarm, automatic shutoff valves, turbine leak detectors, sumps, oil/water separator, monitoring wells and Stage I vapor recovery equipment.

TYPE OF POLLUTION CONTROL FACILITY:

AIR NOISE WATER SOLID WASTE HAZARDOUS WASTE USED OIL

DATE FACILITY COMPLETED: 5/1/95

PLACED INTO OPERATION: 5/1/95

ACTUAL COST OF POLLUTION CONTROL FACILITY: \$154,331.00

PERCENT OF ACTUAL COST PROPERLY ALLOCABLE TO POLLUTION CONTROL: 94%

Based upon the information contained in the application referenced above, the Environmental Quality Commission certifies that the facility described herein was erected, constructed or installed in accordance with the requirements of subsection (1) of ORS 468.165, and is designed for, and is being operated or will operate to a substantial extent for the purpose of preventing, controlling or reducing air, water or noise pollution or solid waste, hazardous wastes or used oil, and that it is necessary to satisfy the intents and purposes of ORS Chapters 454, 459, 467 and 468 and rules adopted thereunder.

Therefore, this Pollution Control Facility Certificate is issued this date subject to compliance with the statutes of the State of Oregon, the regulations of the Department of Environmental Quality and the following special conditions:

1. The facility shall be continuously operated at maximum efficiency for the designed purpose of preventing, controlling, and reducing the type of pollution as indicated above.
2. The Department of Environmental Quality shall be immediately notified of any proposed change in use or method of operation of the facility and if, for any reason, the facility ceases to operate for its intended pollution control purpose.
3. Any reports or monitoring data requested by the Department of Environmental Quality shall be promptly provided.

NOTE: The facility described herein is not eligible to receive tax credit certification as an Energy Conservation Facility under the provisions of Chapter 512, Oregon Law 1979, if the person issued the Certificate elects to take the tax credit relief under ORS 316.097 or 317.072.

Signed: William W. Wessinger (William W. Wessinger, Chairman)

Approved by the Environmental Quality Commission on the 17th day of November, 1995.

TATE OF OREGON
DEPARTMENT OF ENVIRONMENTAL QUALITY
POLLUTION CONTROL FACILITY CERTIFICATE

Certificate No: 3684
Date of Issue: 11-14-96
Application No: TC 4652

ISSUED TO:

Truax Harris Energy LLC
PO Box 607
Wilsonville, OR 97070

ATTENTION: Larry Petrijanos

LOCATION OF POLLUTION CONTROL FACILITY:

2795 Market St, NE
Salem, OR
Facility ID # 6108

AS: LESSEE OWNER INDIV PARTNER CORP NON-PROFIT CO-OP Excise Ad Valorem

DESCRIPTION OF POLLUTION CONTROL FACILITY:

Two doublewall brine-filled fiberglass tanks, doublewall flexible plastic piping, spill containment basins, tank gauge system, turbine leak detectors, overfill alarm, sumps, oil/water separator, monitoring wells, automatic shutoff valves and Stage I vapor recovery equipment.

TYPE OF POLLUTION CONTROL FACILITY:

AIR NOISE WATER-UST SOLID WASTE HAZARDOUS WASTE USED OIL

DATE FACILITY COMPLETED: 1-1-96

PLACED INTO OPERATION: 1-1-96

ACTUAL COST OF POLLUTION CONTROL FACILITY: \$ 199,735

PERCENT OF ACTUAL COST PROPERLY ALLOCABLE TO POLLUTION CONTROL: 96%

Based upon the information contained in the application referenced above, the Environmental Quality Commission certifies that the facility described herein was erected, constructed or installed in accordance with the requirements of subsection (1) of ORS 468.165, and is designed for, and is being operated or will operate to a substantial extent for the purpose of preventing, controlling or reducing air, water or noise pollution or solid waste, hazardous wastes or used oil, and that it is necessary to satisfy the intents and purposes of ORS Chapters 454, 459, 467 and 468 and rules adopted thereunder.

Therefore, this Pollution Control Facility Certificate is issued this date subject to compliance with the statutes of the State of Oregon, the regulations of the Department of Environmental Quality and the following special conditions:

1. The facility shall be continuously operated at maximum efficiency for the designed purpose of preventing, controlling, and reducing the type of pollution as indicated above.
2. The Department of Environmental Quality shall be immediately notified of any proposed change in use or method of operation of the facility and if, for any reason, the facility ceases to operate for its intended pollution control purpose.
3. Any reports or monitoring data requested by the Department of Environmental Quality shall be promptly provided.

NOTE: Any portion of the facility described herein is not eligible to receive tax credit certification as an energy conservation facility or a reclaimed plastic facility [ORS 315.324(12) and ORS 315.356(4) and (5)].

Signed:  (Henry Lorenzen, Chairman)

Approved by the Environmental Quality Commission on the 14th day of November, 1996.

POLLUTION CONTROL FACILITY CERTIFICATE

ISSUED TO: Truax Harris Energy LLC PO Box 607 Wilsonville, OR 97070 ATTENTION: Larry Petrjanos	LOCATION OF POLLUTION CONTROL FACILITY: 125 Washington Street SW Dallas, OR 97338
AS: <input type="checkbox"/> LESSEE <input checked="" type="checkbox"/> OWNER <input type="checkbox"/> INDIV <input type="checkbox"/> PARTNER <input checked="" type="checkbox"/> CORP <input type="checkbox"/> NON-PROFIT <input type="checkbox"/> CO-OP <input type="checkbox"/> Excise <input type="checkbox"/> Ad Valorem	
DESCRIPTION OF POLLUTION CONTROL FACILITY: UST system replacement.	
TYPE OF POLLUTION CONTROL FACILITY: <input type="checkbox"/> AIR <input type="checkbox"/> NOISE <input checked="" type="checkbox"/> WATER <input type="checkbox"/> SOLID WASTE <input type="checkbox"/> HAZARDOUS WASTE <input type="checkbox"/> USED OIL	
DATE FACILITY COMPLETED: 10-1-95 PLACED INTO OPERATION: 10-1-95	
ACTUAL COST OF POLLUTION CONTROL FACILITY: \$ 187,412	
PERCENT OF ACTUAL COST PROPERLY ALLOCABLE TO POLLUTION CONTROL: 95%	
Based upon the information contained in the application referenced above, the Environmental Quality Commission certifies that the facility described herein was erected, constructed or installed in accordance with the requirements of subsection (1) of ORS 468.165, and is designed for, and is being operated or will operate to a substantial extent for the purpose of preventing, controlling or reducing air, water or noise pollution or solid waste, hazardous wastes or used oil, and that it is necessary to satisfy the intents and purposes of ORS Chapters 454, 459, 467 and 468 and rules adopted thereunder. Therefore, this Pollution Control Facility Certificate is issued this date subject to compliance with the statutes of the State of Oregon, the regulations of the Department of Environmental Quality and the following special conditions:	
The facility shall be continuously operated at maximum efficiency for the designed purpose of preventing, controlling, and reducing the type of pollution as indicated above. 2. The Department of Environmental Quality shall be immediately notified of any proposed change in use or method of operation of the facility and if, for any reason, the facility ceases to operate for its intended pollution control purpose. 3. Any reports or monitoring data requested by the Department of Environmental Quality shall be promptly provided.	
NOTE: Any portion of the facility described herein is not eligible to receive tax credit certification as an energy conservation facility or a reclaimed plastic facility [ORS 315.324(12) and ORS 315.356(4) and (5)].	
Signed: _____ (Henry Lorenzen, Chairman)	
Approved by the Environmental Quality Commission on the 31st day of December, 1996.	

Staff: B.Anderson

COPY

STATE OF OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY POLLUTION CONTROL FACILITY CERTIFICATE	Certificate No: 3720 Date of Issue: 12-31-96 Application No: TC 4685
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ISSUED TO: Truax Harris Energy LLC PO Box 607 Wilsonville, OR 97070 ATTENTION: Larry Petranos	LOCATION OF POLLUTION CONTROL FACILITY: 18777 SE McLoughlin Milwaukie, OR
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AS: LESSEE OWNER INDIV PARTNER CORP NON-PROFIT CO-OP Excise Ad Valorem

DESCRIPTION OF POLLUTION CONTROL FACILITY:
 UST system replacement.

TYPE OF POLLUTION CONTROL FACILITY:
 AIR NOISE WATER SOLID WASTE HAZARDOUS WASTE USED OIL

DATE FACILITY COMPLETED: 8-1-96 PLACED INTO OPERATION: 8-1-96

ACTUAL COST OF POLLUTION CONTROL FACILITY: \$ 206,289

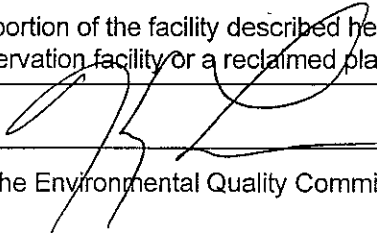
PERCENT OF ACTUAL COST PROPERLY ALLOCABLE TO POLLUTION CONTROL: 95%

Based upon the information contained in the application referenced above, the Environmental Quality Commission certifies that the facility described herein was erected, constructed or installed in accordance with the requirements of subsection (1) of ORS 468.165, and is designed for, and is being operated or will operate to a substantial extent for the purpose of preventing, controlling or reducing air, water or noise pollution or solid waste, hazardous wastes or used oil, and that it is necessary to satisfy the intents and purposes of ORS Chapters 454, 459, 467 and 468 and rules adopted thereunder.

Therefore, this Pollution Control Facility Certificate is issued this date subject to compliance with the statutes of the State of Oregon, the regulations of the Department of Environmental Quality and the following special conditions:

1. The facility shall be continuously operated at maximum efficiency for the designed purpose of preventing, controlling, and reducing the type of pollution as indicated above.
2. The Department of Environmental Quality shall be immediately notified of any proposed change in use or method of operation of the facility and if, for any reason, the facility ceases to operate for its intended pollution control purpose.
3. Any reports or monitoring data requested by the Department of Environmental Quality shall be promptly provided.

NOTE: Any portion of the facility described herein is not eligible to receive tax credit certification as an energy conservation facility or a reclaimed plastic facility [ORS 315.324(12) and ORS 315.356(4) and (5)].

Signed:  (Henry Lorenzen, Chairman)
 Approved by the Environmental Quality Commission on the 31st day of December, 1996.

Staff: B.Anderson

COPY

STATE OF OREGON
 DEPARTMENT OF ENVIRONMENTAL QUALITY
POLLUTION CONTROL FACILITY CERTIFICATE

Certificate No: 3721
 Date of Issue: 12-31-96
 Application No: TC 4686

ISSUED TO: Truax Harris Energy LLC PO Box 607 Wilsonville, OR 97070 ATTENTION: Larry Petrijanos	LOCATION OF POLLUTION CONTROL FACILITY: 1720 North Hwy 99 West McMinnville, OR
AS: <input type="checkbox"/> LESSEE <input checked="" type="checkbox"/> OWNER <input type="checkbox"/> INDIV <input type="checkbox"/> PARTNER <input checked="" type="checkbox"/> CORP <input type="checkbox"/> NON-PROFIT <input type="checkbox"/> CO-OP <input type="checkbox"/> Excise <input type="checkbox"/> Ad Valorem	
DESCRIPTION OF POLLUTION CONTROL FACILITY: UST corrosion protection/spill prevention.	
TYPE OF POLLUTION CONTROL FACILITY: <input type="checkbox"/> AIR <input type="checkbox"/> NOISE <input checked="" type="checkbox"/> WATER <input type="checkbox"/> SOLID WASTE <input type="checkbox"/> HAZARDOUS WASTE <input type="checkbox"/> USED OIL	
DATE FACILITY COMPLETED: 7-1-96 PLACED INTO OPERATION: 7-1-96	
ACTUAL COST OF POLLUTION CONTROL FACILITY: \$ 51,698	
PERCENT OF ACTUAL COST PROPERLY ALLOCABLE TO POLLUTION CONTROL: 99%	
<p>Based upon the information contained in the application referenced above, the Environmental Quality Commission certifies that the facility described herein was erected, constructed or installed in accordance with the requirements of subsection (1) of ORS 468.165, and is designed for, and is being operated or will operate to a substantial extent for the purpose of preventing, controlling or reducing air, water or noise pollution or solid waste, hazardous wastes or used oil, and that it is necessary to satisfy the intents and purposes of ORS Chapters 454, 459, 467 and 468 and rules adopted thereunder.</p> <p>Therefore, this Pollution Control Facility Certificate is issued this date subject to compliance with the statutes of the State of Oregon, the regulations of the Department of Environmental Quality and the following special conditions:</p> <ol style="list-style-type: none"> 1. The facility shall be continuously operated at maximum efficiency for the designed purpose of preventing, controlling, and reducing the type of pollution as indicated above. 2. The Department of Environmental Quality shall be immediately notified of any proposed change in use or method of operation of the facility and if, for any reason, the facility ceases to operate for its intended pollution control purpose. 3. Any reports or monitoring data requested by the Department of Environmental Quality shall be promptly provided. <p>NOTE: Any portion of the facility described herein is not eligible to receive tax credit certification as an energy conservation facility or a reclaimed plastic facility [ORS 315.324(12) and ORS 315.356(4) and (5)].</p>	
Signed: _____ (Henry Lorenzen, Chairman) Approved by the Environmental Quality Commission on the 31st day of December, 1996.	

Staff: B.Anderson

COPY

STATE OF OREGON
DEPARTMENT OF ENVIRONMENTAL QUALITY
POLLUTION CONTROL FACILITY CERTIFICATE

Certificate No: **3862**
Date of Issue: 12/30/1997
Application No: 4869

ISSUED TO: Truax Harris Energy Co., LLC
PO Box 607
Wilsonville, OR 97070

ATTENTION: Truax Harris Energy Co., LLC

LOCATION OF POLLUTION CONTROL FACILITY:

33558 Havlik Drive
Scappoose, OR 97056

AS A Limited Liability Company Excise Ad Valorem

DESCRIPTION OF POLLUTION CONTROL FACILITY: 2 doublewall fiberglass tanks, doublewall flexible plastic piping, spill containment basins, auto tank guage system, overflow alarm, turbine leak detectors, sumps, monitoring wells, auto shutoff valves and Stage II vapor recovery equipment

TYPE OF POLLUTION CONTROL FACILITY: USTs

DATE FACILITY COMPLETED: 05/01/1997

PLACED INTO OPERATION: 05/01/1997

ACTUAL COST OF POLLUTION CONTROL FACILITY: \$140,251.00

PERCENT OF ACTUAL COST PROPERLY ALLOCABLE TO POLLUTION CONTROL: 0.9300%

Based upon the information contained in the application referenced above, the Environmental Quality Commission certifies that the facility described herein was erected, constructed or installed in accordance with the requirements of subsection (1) of ORS 468.165, and is designed for, and is being operated or will operate to a substantial extent for the purpose of preventing, controlling or reducing air, water or noise pollution or solid waste, hazardous wastes or used oil, and that it is necessary to satisfy the intents and purposes of ORS Chapters 454, 459, 467 and 468 and rules adopted thereunder.

Therefore, this Pollution Control Facility Certificate is issued this date subject to compliance with the statutes of the State of Oregon, the regulations of the Department of Environmental Quality and the following special conditions:

1. The facility shall be continuously operated at maximum efficiency for the designed purpose of preventing, controlling, and reducing the type of pollution as indicated above.
2. The Department of Environmental Quality shall be immediately notified of any proposed change in use or method of operation of the facility and if, for any reason, the facility ceases to operate for its intended pollution control purpose.
3. Any reports or monitoring data requested by the Department of Environmental Quality shall be promptly provided.

NOTE: Any portion of the facility described herein is not eligible to receive tax credit certification as an energy conservation facility or a reclaimed plastic facility [ORS 315.324(12) and ORS 315.356(4) and (5)].

Signed:  (Henry Lorenzen, Chairman)

Approved by the Environmental Quality Commission on 12/30/1997.

STATE OF OREGON
DEPARTMENT OF ENVIRONMENTAL QUALITY
POLLUTION CONTROL FACILITY CERTIFICATE

Certificate No: **4258**
Date of Issue: 12/20/99
Application No: 5292

ISSUED TO: **Truax Harris Energy LLC**
PO Box 607
Wilsonville, OR 97070

LOCATION OF POLLUTION CONTROL FACILITY:

2485 Mission Street SE
Salem, OR 97302

ATTENTION: Larry Petrijanos, Chief Financial Officer

Operating as the owner of the facility. A limited liability company.

DESCRIPTION OF POLLUTION CONTROL FACILITY: **Four doublewall fibreglass underground storage tanks, doublewall flexible plastic piping, turbine leak detectors, sumps, monitoring wells, oil/water seperator, automatic shutoff valves and Stage I vapor recovery system**

TYPE OF POLLUTION CONTROL FACILITY: USTs

DATE FACILITY COMPLETED: 10/1/98 PLACED INTO OPERATION: 10/1/98

ACTUAL COST OF POLLUTION CONTROL FACILITY: **\$317,343.00**

PERCENT OF ACTUAL COST PROPERLY ALLOCABLE TO POLLUTION CONTROL: **94%**

Based upon the information contained in the application referenced above, the Environmental Quality Commission certifies that the facility described herein was erected, constructed or installed in accordance with the requirements of subsection (1) of ORS 468.165, and is designed for, and is being operated or will operate to a substantial extent for the purpose of preventing, controlling or reducing air, water or noise pollution or solid waste, hazardous wastes or used oil, and that it is necessary to satisfy the intents and purposes of ORS Chapters 454, 459, 467 and 468 and rules adopted thereunder.

Therefore, this Pollution Control Facility Certificate is issued this date subject to compliance with the statutes of the State of Oregon, the regulations of the Department of Environmental Quality and the following special conditions:

1. The facility shall be continuously operated at maximum efficiency for the designed purpose of preventing, controlling, and reducing the type of pollution as indicated above.
2. The Department of Environmental Quality shall be immediately notified of any proposed change in use or method of operation of the facility and if, for any reason, the facility ceases to operate for its intended pollution control purpose.
3. Any reports or monitoring data requested by the Department of Environmental Quality shall be promptly provided.

NOTE: Any portion of the facility described herein is not eligible to receive tax credit certification as an energy conservation facility or a reclaimed plastic facility [ORS 315.324(12) and ORS 315.356(4) and (5)].

Signed:  (Melinda S. Eden, Chair)

Approved by the Environmental Quality Commission on 12/20/99.

STATE OF OREGON
DEPARTMENT OF ENVIRONMENTAL QUALITY
POLLUTION CONTROL FACILITY CERTIFICATE

Certificate No: **4417**
Date of Issue: 12/1/00
Application No: 5443

ISSUED TO: **Truax Harris Energy LLC**
PO Box 607
Wilsonville, OR 97070

LOCATION OF POLLUTION CONTROL FACILITY:

585 Wallace Rd NW
Salem, OR 97304

ATTENTION: Larry Petrijanos

Operating as the owner of the facility. A limited liability company.

DESCRIPTION OF POLLUTION CONTROL FACILITY: **Four doublewall fiberglass underground storage tanks, doublewall flexible plastic piping, spill containment basins, automatic tank gauge system with alarm, turbine leak detectors, sumps, monitoring wells, oil/water separator, automatic shutoff valves and Stage I vapor recovery.**

TYPE OF POLLUTION CONTROL FACILITY: Underground Storage Tanks

DATE FACILITY COMPLETED: 8/30/99 PLACED INTO OPERATION: 9/15/99

ACTUAL COST OF POLLUTION CONTROL FACILITY: **\$324,491.00**

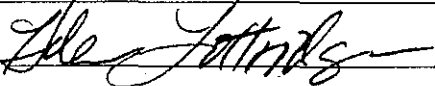
PERCENT OF ACTUAL COST PROPERLY ALLOCABLE TO POLLUTION CONTROL: **93%**

Based upon the information contained in the application referenced above, the Environmental Quality Commission certifies that the facility described herein was erected, constructed or installed in accordance with the requirements of subsection '1) of ORS 468.165, and is designed for, and is being operated or will operate to a substantial extent for the purpose of preventing, controlling or reducing air, water or noise pollution or solid waste, hazardous wastes or used oil, and that it is necessary to satisfy the intents and purposes of ORS Chapters 454, 459, 467 and 468 and rules adopted thereunder.

Therefore, this Pollution Control Facility Certificate is issued this date subject to compliance with the statutes of the State of Oregon, the regulations of the Department of Environmental Quality and the following special conditions:

1. The facility shall be continuously operated at maximum efficiency for the designed purpose of preventing, controlling, and reducing the type of pollution as indicated above.
2. The Department of Environmental Quality shall be immediately notified of any proposed change in use or method of operation of the facility and if, for any reason, the facility ceases to operate for its intended pollution control purpose.
3. Any reports or monitoring data requested by the Department of Environmental Quality shall be promptly provided.

NOTE: Any portion of the facility described herein is not eligible to receive tax credit certification as an energy conservation facility or a reclaimed plastic facility [ORS 315.324(12) and ORS 315.356(4) and (5)].

Signed:  (Helen Lottridge, MSD Administrator)

Approved by the Environmental Quality Commission on 12/1/00.

STATE OF OREGON
DEPARTMENT OF ENVIRONMENTAL QUALITY
POLLUTION CONTROL FACILITY CERTIFICATE

Certificate No: **4420**
Date of Issue: 12/1/00
Application No: 5446

ISSUED TO: **Truax Harris Energy LLC**
PO Box 607
Wilsonville, OR 97070

ATTENTION: Larry Petrijanos

LOCATION OF POLLUTION CONTROL FACILITY:

Fast Trip Gas
5829 NE Martin Luther King Jr. Blvd
Portland, OR 97211

Operating as the owner of the facility. A limited liability company.

DESCRIPTION OF POLLUTION CONTROL FACILITY: **Two doublewall fiberglass underground storage tanks, doublewall flexible plastic piping, spill containment basins, automatic tank gauge system, turbine leak detectors, overflow alarm, sumps, monitoring wells, oil/water separator, automatic shutoff valves and Stage I & II vapor recovery.**

TYPE OF POLLUTION CONTROL FACILITY: Underground Storage Tanks

DATE FACILITY COMPLETED: 6/30/99 PLACED INTO OPERATION: 7/15/99

ACTUAL COST OF POLLUTION CONTROL FACILITY: **\$304,129.00**

PERCENT OF ACTUAL COST PROPERLY ALLOCABLE TO POLLUTION CONTROL: **96%**

Based upon the information contained in the application referenced above, the Environmental Quality Commission certifies that the facility described herein was erected, constructed or installed in accordance with the requirements of subsection (1) of ORS 468.165, and is designed for, and is being operated or will operate to a substantial extent for the purpose of preventing, controlling or reducing air, water or noise pollution or solid waste, hazardous wastes or used oil, and that it is necessary to satisfy the intents and purposes of ORS Chapters 454, 459, 467 and 468 and rules adopted thereunder.

Therefore, this Pollution Control Facility Certificate is issued this date subject to compliance with the statutes of the State of Oregon, the regulations of the Department of Environmental Quality and the following special conditions:

1. The facility shall be continuously operated at maximum efficiency for the designed purpose of preventing, controlling, and reducing the type of pollution as indicated above.
2. The Department of Environmental Quality shall be immediately notified of any proposed change in use or method of operation of the facility and if, for any reason, the facility ceases to operate for its intended pollution control purpose.
3. Any reports or monitoring data requested by the Department of Environmental Quality shall be promptly provided.

NOTE: Any portion of the facility described herein is not eligible to receive tax credit certification as an energy conservation facility or a reclaimed plastic facility [ORS 315.324(12) and ORS 315.356(4) and (5)].

Signed:  (Helen Lottridge, MSD Administrator)

Approved by the Environmental Quality Commission on 12/1/00.

Date: September 10, 2002
To: Environmental Quality Commission
From: Stephanie Hallock, Director *S. Hallock*
Subject: Agenda Item I, Rule Adoption: Permanent Pollution Control Facilities Tax Credit Rule
October 4, 2002 EQC Meeting

Department Recommendation The Department recommends the Environmental Quality Commission (EQC) adopt permanent rules (Attachment A) for the Pollution Control Facilities Tax Credit program to clarify 2001 legislation and delegate wood chipper certification to the Department.

Need for Rulemaking The 2001 legislature amended Pollution Control Facilities Tax Credit laws¹ to extend the program until 2007, reduce the maximum tax credit available to certificate holders to 35%, and reduce the filing period to one year. In making these changes, the legislature intended to provide "safe-harbor" treatment under the 1999 law for projects that would have been certified had the law not been amended. The 2001 law, however, could be interpreted to exclude or provide a reduced credit to some projects constructed in 2001. In September 2001, the EQC adopted a temporary rule to clarify the law consistent with legislative intent, and the proposed rule is needed to make that clarification permanent.

The proposed rule also delegates wood chipper tax credit certification to the Department. The number of wood chipper applications has significantly increased over the past year as more individuals and small businesses have taken advantage of the tax credit. The Commission's policy interpretation is not necessary to determine eligibility of wood chippers according to program regulations. Delegating the certification of these applications to the Department is needed to streamline the approval process and to improve the Commission's efficiency when considering tax credits that do require policy interpretation.

¹ Oregon Revised Statutes 468.155 to 468.190

- Effect of Rule** The proposed rule would:
- provide the 50% maximum tax credit to projects that would have been certified had the 1999 law not been amended in 2001; and
 - delegate the EQC's authority to certify wood chippers to the department. The rule would preserve the applicant's right to defer certification to the EQC if desired.
- Commission Authority** The Commission has authority to take this action under ORS 468.020, and 183.335(5).
- Stakeholder Involvement** The Department did not hold workgroups, committees or public hearings on the proposed rule because:
- These amendments provide clarification consistent with legislative intent and stakeholder expectations;
 - The temporary rule made this same clarification, and no issues were raised during its effective period; and
 - An applicant's right to defer certification to the EQC would be preserved and the Department would not have the authority to certify discretionary matters.
- Public Comment** The public comment period extended from May 15, 2002 to June 21, 2002 and included one public hearing in Portland, Oregon. One comment was submitted in support of the proposed rule as provided in Attachment B. The Presiding Officer's Report, provided in Attachment C, indicates that no member of the public attended the hearing.
- Key Issues** Clarification of 2001 Act The 1999 Edition of ORS 459.155 to 468.190 was scheduled to sunset in two phases; facilities constructed on or before December 31, 2002 would have been eligible to apply for certification and the final date for filing an application would have been December 31, 2003.

The effective date of the 2001 Act was October 6, 2001. It is also scheduled to sunset in two phases; facilities constructed on or before December 31, 2007 are eligible to apply for certification and the final date for filing an application is December 31, 2008.

The 2001 law reduced the filing period from two years to one year. Without the proposed rule, any application filed beyond one year after a project is completed would be denied certification regardless of the edition in effect at the time the facility was constructed.

The 2001 law also shifts the maximum tax credit percentage from 50% to a reduced tiered percentage. It preserved the 50% maximum if:

- The facility is certified under ORS 468.155 to 468.190 (1999 Edition); or
- Construction or installation of the facility is commenced prior to January 1, 2001, and completed prior to January 1, 2004.

[ORS 468.173(1)]

Without the proposed rule, the tiered approach:

- Fails to provide any maximum tax credit percentage for projects that commenced and completed construction in 2001 if the applicant filed the application in 2001; and
- Provides a reduced maximum percentage for projects that commenced and completed construction anytime during 2001 if the applicant filed the application on or after January 1, 2002.

Wood Chipper Certification The EQC has issued over 250 wood chipper certificates since December 2001. The certificates represent an increase in the number of lower cost facilities with a median tax expenditure liability of \$750. The proposed rules would speed processing of these certificates.

Next Steps The effective date of the proposed rule would be November 1, 2002 or upon filing with the Secretary of State, whichever is the later date.

The department postponed presenting any tax credit applications to the EQC if the applicant would benefit from the proposed rules. If the proposed rules are adopted, all applications not delegated to the Department would be presented to the EQC on December 13, 2002.

The Rule Implementation Plan is available upon request. Specific training is not required to implement these rules. Program staff will review wood chipper applications in the same manner they are currently being reviewed. Accounting staff will provide adequate internal controls for verifying eligibility and printing wood chipper certificates. The department will report wood chipper certification activity to the EQC on an annual basis.

- Attachments**
- A. Proposed Rule Revisions
 - B. Public Input and Department's Response
 - C. Presiding Officer's Report on Public Hearings
 - D. Relationship to Federal Requirements
 - E. Fiscal and Economic Impact Statement
 - F. Land Use Evaluation Statement

- Available Upon Request**
- 1. Legal Notice of Hearing
 - 2. Cover Memorandum from Public Notice
 - 3. Rule Implementation Plan
 - 4. Enrolled Senate Bill 764-B

Approved:

Section:



Division:



Report Prepared By: Maggie Vandehey

Phone: (503) 229-6878

Attachment A

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal

For

Pollution Control Facilities Tax Credit
Rule clarifying 2001 Legislation - temporarily adopted September 21, 2001.
Rule delegating wood chipper certification.

340-016-0007 Facilities certified under the 1999 Edition

For the purposes of Oregon Revised Statute 468.173(1), a facility may be certified under the 1999 edition of ORS 468.155 to 468.190 if the facility was substantially completed on or before December 31, 2001, and an application was filed with the Department within two years after the date of substantial completion.

340-016-0009 Certification of wood chippers

For the purpose of subdelegating authority to approve and issue final certification of pollution control facilities under OAR 340-016-0080(2):

(1) The Environmental Quality Commission authorizes the Director of the Department of Environmental Quality or the Director's delegate to certify wood chippers as provided in OAR 340-016-0060(4)(h)(C) if:

(a) The Department determines the facility is otherwise eligible under OAR 340-016-0060; and
(b) The claimed facility cost does not exceed \$50,000 as set forth in OAR 340-016-0075(1).

(2) The Department may elect to defer certification of any facility to the Environmental Quality Commission.

(3) If the Department determines the facility cost, the percentage of the facility cost allocable to pollution control, or the applicable percentage under ORS 468.173 is less than the applicant claimed on the application then the Department shall:

(a) Notifying the applicant in writing; and

(b) Include a concise statement of the reasons for the proposed certification of a lesser amount or percentage; and

(c) Include a statement advising the applicant of their rights under section (4).

Agenda Item I, Rule Adoption: Pollution Control Facilities Tax Credit
October 4, 2002 EQC Meeting
Attachment A - Page 2 of 2

(4) Applicants that receive a notification under section (3) may elect to defer certification to the Environmental Quality Commission by notifying the Department within 30 days of the notification date.

(5) The Department shall defer certification to the Environmental Quality Commission according to sections (2) and (4).

(6) The Director or the Director's delegate shall certify facilities that otherwise qualify under this rule and have not been deferred according to sections (2) or (4).

Attachment B

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal

For

Pollution Control Facilities Tax Credit

Rule clarifying 2001 Legislation - temporarily adopted September 21, 2001.

Rule delegating wood chipper certification.

Public Input and Department's Response

Notice to Interested and Affected Public was mailed on May 15, 2002. It was mailed to the Agency List, Tax Credit List, and to sponsoring legislators. The notice of the June 18, 2002 Public Hearing was published in the Secretary of State's Bulletin on June 1, 2002. Four Oregon publications ran the public notice. No member of the public attended the Public Hearing as noted in Attachment C. The record closed on June 21, 2002 with one written comment provided in this attachment.

The written comment supported the proposed rule to clarify the 1999 Edition of ORS 468.155 to 468.190. The respondent stated, "Any change in the economics dictates a pass through which will result in higher payments that were not planned for by our customers nor by us as a lending institution when computing cash flow and ability to repay debt." The proposed rule would address the respondent's concern if adopted by the EQC on October 4, 2002.

Agenda Item I, Rule Adoption: Pollution Control Facilities Tax Credit
October 4, 2002 EQC Meeting
Attachment B - Page 2 of 2



DOOLING LEASE MANAGEMENT CORP.

June 21, 2002

Maggie Vandehey
Tax Credit Program Manager
Department of Environmental Quality
811 SW Sixth Avenue
Portland, OR 97204

HAND DELIVERED 6-21-02

Re: Application Numbers 6088, 6089, 6108

Dear Maggie:

As you know Dooling Lease Management Corp. as agent for banks in the area provide lease financing to small businesses throughout the state of Oregon. We have worked with your department over the last few years and are grateful for the professionalism and promptness that helps us in our day-to-day activities.

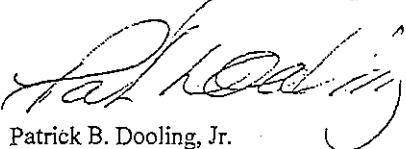
However, the delay for processing tax credits by your department due to ambiguity in the law will cause considerable hardship to our customers (lessees). When we structure a lease transaction, we use a program that impacts not only the amount of the credit but the timing as to when the credit will be realized by our client banks. When this impact is calculated, the lease is structured with the bank taking the tax credit and passing through a lower rate to the customer as a result of that calculation. These economics are impacted into the lease payments that our lessees pay on a monthly basis. Any change in the economics dictates a pass through which will result in higher payments that were not planned for by our customer nor by us as a lending institution when computing cash flow and ability to repay debt. Not only will there be considerable required restructuring but also an extremely upset client base who relied on Dooling Lease Management Corp. to provide them with reliable information on a very valuable tax credit to small business in Oregon.

It is our sincere wish that the ruling jurisdiction will assist us in honoring what we had proposed in the market place. A change in this at this late date will cause our small business customers to suffer. They made heavy investments in recycling equipment based on what we quoted them. This significant investment benefits us all in this state which is the objective of the tax credit program.

Please let me know if we can provide any further information or clarification as this issue is of paramount importance to us and to our lessees.

Cordially,

DOOLING LEASE MANAGEMENT CORP.


Patrick B. Dooling, Jr.
President

Agenda Item I, Rule Adoption: Pollution Control Facilities Tax Credit
October 4, 2002 EQC Meeting
Attachment C - Page 1 of 2

Attachment C

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal

For

Pollution Control Facilities Tax Credit

Rule clarifying 2001 Legislation - temporarily adopted September 21, 2001.

Rule delegating wood chipper certification.

Presiding Officer's Report on Public Hearing

Agenda Item I, Rule Adoption: Pollution Control Facilities Tax Credit
October 4, 2002 EQC Meeting
Attachment C - Page 2 of 2

State of Oregon
Department of Environmental Quality

Memorandum

Date: June 18, 2002

To: Maggie Vandehey, Manager
Oregon Pollution Control Tax Credit Program

From: barrett macdougall, MSDBU

Subject: Public Hearing of June 18, 2002

I served as Hearings Officer at a public hearing held at 2:00 PM Pacific Daylight Time in Room 3A of the DEQ headquarters building, 811 SW Sixth Avenue, Portland, Oregon 97204.

The purpose of this public hearing was to obtain public input and comment on proposed changes to the Oregon Administrative Rules governing the Pollution Control Tax Credit Program. Details of the proposed rulemaking may be found in the Memorandum, dated May 8, 2002 which is attached hereto as Exhibit I and by this reference incorporated herein.


I opened the hearing at 2:00 PM.

No members of the public were in attendance. No written or oral testimony was offered.

I closed the hearing at 2:17 PM.

The proceedings were taped. The tape is attached. The tape will not be transcribed at this time.

Respectfully submitted:



Barrett MacDougall
Financial Analyst

Attachment D

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal

For

Pollution Control Facilities Tax Credit

Rule clarifying 2001 Legislation - temporarily adopted September 21, 2001.

Rule delegating wood chipper certification.

Questions to be Answered to Reveal Potential Justification for Differing from Federal Requirements.

- 1. Are there federal requirements that are applicable to this situation? If so, exactly what are they?**

There are no federal rules applicable to the Pollution Control Facilities Tax Credit. The rules provide for a credit against an Oregon taxpayer's state tax liability. Adjacent states have various mechanisms for providing incentives to reduce or control pollution. Their programs are not, however, directly comparable to Oregon's Pollution Control Facilities Tax Credit.

- 2. Are the applicable federal requirements performance based, technology based, or both with the most stringent controlling?**

Not applicable.

- 3. Do the applicable federal requirements specifically address the issues that are of concern in Oregon? Was data or information that would reasonably reflect Oregon's concern and situation considered in the federal process that established the federal requirements?**

Not applicable.

- 4. Will the proposed requirement improve the ability of the regulated community to comply in a more cost effective way by clarifying confusing or potentially conflicting**

requirements (within or cross-media), increasing certainty, or preventing or reducing the need for costly retrofit to meet more stringent requirements later?

Not applicable.

5. Is there a timing issue that might justify changing the time frame for implementation of federal requirements?

Not applicable.

6. Will the proposed requirement assist in establishing and maintaining a reasonable margin for accommodation of uncertainty and future growth?

Not applicable.

7. Does the proposed requirement establish or maintain reasonable equity in the requirements for various sources? (level the playing field)

Not applicable.

8. Would others face increased costs if a more stringent rule is not enacted?

Not applicable.

9. Does the proposed requirement include procedural requirements, reporting or monitoring requirements that are different from applicable federal requirements? If so, Why? What is the "compelling reason" for different procedural, reporting or monitoring requirements?

Not applicable.

10. Is demonstrated technology available to comply with the proposed requirement?

Not applicable.

11. Will the proposed requirement contribute to the prevention of pollution or address a potential problem and represent a more cost-effective environmental gain?

Not applicable.

Attachment E

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal

For

Pollution Control Facilities Tax Credit

Rule clarifying 2001 Legislation - temporarily adopted September 21, 2001.

Rule delegating wood chipper certification.

Fiscal and Economic Impact Statement

Introduction

The 2001 Legislature passed Senate Bill 764-B (Oregon Laws, 2001, Chapter 928). Section 6(1) of the Act is ambiguous with respect to facilities certified under the 1999 edition of ORS 468.155 to 468.190 when considered in conjunction with the effective date and other language in the Act. A restrictive and unintended interpretation of the 2001 Act would negatively impact or withhold the tax credit from some applicants that constructed or installed facilities under the provisions of the 1999 edition.

The Environmental Quality Commission (EQC) seeks administrative efficiencies by authorizing the Department of Environmental Quality to certify wood chippers as pollution control facilities for tax credit purposes. The certification of the majority of wood chippers is administrative.

General Public

These rules apply to any Oregon taxpayer seeking tax credits. Tax credits certified by the Environmental Quality Commission may be claimed by a certificate holder as a direct credit against the certificate holder's state income tax liability, or for cooperatives and non-profit corporations, as a credit against ad valorem taxes. There is no direct impact to the general public. There is an indirect effect on the general public in that the amount of tax credit taken by businesses represents the amount by which tax collections, and hence the state's General Fund, will diminish.

Small Business

Small businesses with 50 or fewer employees submit over eighty percent of the number of applications. Small businesses utilize the tax credit program for investments such as automotive refrigerant recovery equipment, alternatives to open field burning, oil/water separators, animal

waste treatment systems, wood chippers, and underground and aboveground storage tank systems. These rule amendments have no negative fiscal impact on small businesses over the 1999 edition of ORS 468.155 to 468.190. A restrictive and unintended interpretation of the 2001 Act would adversely impact small businesses. Failure to clarify the meaning of "certified under the 1999 Edition" could cause confusion among users without legal resources.

The Department's certification of the wood chipper would reduce the number of applicant contacts and the time elapsed between application receipt and certificate delivery. This eliminates opportunities for confusion with taxpayers that frequently expect this tax credit to be processed in a manner similar to the Business Energy Tax Credit or the Residential Tax Credit.

Large Business

Large businesses submit fewer than 20% of the number of tax credit applications. They utilize the tax credit program for investments in various systems such as industrial waste treatment systems and air cleaning devices. These rule amendments have no negative fiscal impact on large businesses over the 1999 edition of ORS 468.155 to 468.190. A restrictive and unintended interpretation of the 2001 Act would adversely affect large businesses.

Local Governments

Local governments are not eligible for certification of a pollution control tax credit; therefore, a change in program benefits will not have a direct financial impact on local governments.

The tax credit statutes and rules allow cooperatives and non-profit corporations to claim credits against ad valorem taxes. Any change in tax credit program benefits to such organizations could potentially result in an increase or decrease in ad valorem tax collections by local governments. The EQC has not issued a certificate to a cooperative or non-profit corporation within the last five years.

State Agencies

The Department of Environmental Quality (DEQ) is already involved in processing tax credit applications. The Department of Revenue (Revenue) administered the 1999 edition of ORS 468.155 to 468.190 that provided the 50% maximum tax credit percentage. The 2001 Act provided a maximum tax credit percentage based on a tiered reduction in the percentage and gave the DEQ and the EQC the responsibility for determining the percentage as provided under ORS 468.173. The Oregon Department of Agriculture (ODA) and the Department of Justice already participate in tax credit application reviews. Both agencies would continue the same involvement in the certification process. Shifting wood chipper certification to DEQ will reduce the number of contacts with these taxpayers and the amount of time spent on each of these

reviews. The proposed rule amendment does not affect operating revenue, expenses or FTE of any agency.

Assumptions

The EQC issued over 987 Pollution Control Facilities Tax Credit Certificates over the last five years. These certificates represent a \$146 million tax expenditure liability to the State of Oregon.

The EQC issued over 250 wood-chipper certificates between December 2001 and March 2002. The certificates represent an increase in the number of lower cost facilities with an average tax expenditure liability of \$1,494.

A restrictive and unintended interpretation of the 2001 Act does not provide a tax credit percentage for applications filed in 2001, if facility construction started and commenced in 2001 but the EQC did not certify the facility prior to October 6, 2001. The state would incur a tax expenditure liability of \$2.3 million upon certification of facilities constructed in 2001 under the proposed rule.

Eighteen applications filed between October 6, 2001 and December 31, 2001 would be adversely impacted by a restrictive interpretation of the 2001 Act; these facilities fail the one-year filing period of the 2001 Act but met the two-year filing period in the 1999 edition. These applications represent a \$16 million tax expenditure liability.

DEQ estimates an additional \$8.8 million tax expenditure liability (the difference between 50% and 35%) could be associated with clarifying that applicants with facilities constructed on or before December 31, 2001 have two years to file the application to be eligible for the 50% tax credit under the 1999 edition.

Housing Cost Impact Statement

The Department determined this proposed rulemaking will have no effect on the cost of development of a 6,000 square foot parcel and the construction of a 1,200 square foot detached single family dwelling on that parcel.

Attachment F

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal

For

Pollution Control Facilities Tax Credit

Rule clarifying 2001 Legislation - temporarily adopted September 21, 2001.

Rule delegating wood chipper certification.

Land Use Evaluation Statement

1. Explain the purpose of the proposed rules.

The Department is proposing a rule to clarify Section 6(1) of Oregon Laws, 2001, Chapter 928 (Enrolled Senate Bill 764-B) with respect to a key provision that allows a 50% tax credit for facilities "certified under ORS 468.150 to 468.190 (1999 Edition)." Section 6(1), when considered in conjunction with the effective date and other language in the Act, is ambiguous with respect to facilities certified under the 1999 edition of ORS 468.155 to 468.190. A strict interpretation of the 2001 Act would negatively impact or withhold the tax credit available to some applicants that constructed or installed facilities under the provisions of the 1999 edition.

The proposed rule would provide administrative efficiencies by transferring the administrative task of certifying wood chippers from the Environmental Quality Commission (EQC) to the Department of Environmental Quality.

2. Do the proposed rules affect existing rules, programs or activities that are considered land use programs in the DEQ State Agency Coordination (SAC) Program?

Yes ___ No X

a. If yes, identify existing program/rule/activity:

b. If yes, do the existing statewide goal compliance and local plan compatibility procedures adequately cover the proposed rules?

Yes ___ No ___ (if no, explain):

c. If no, apply the following criteria to the proposed rules.

Staff should refer to Section III, subsection 2 of the SAC document in completing the evaluation form. Statewide Goal 6 - Air, Water and Land Resources is the primary goal that relates to DEQ authorities. However, other goals may apply such as Goal 5 - Open Spaces, Scenic and Historic Areas, and Natural Resources; Goal 11 - Public Facilities and Services; Goal 16 - Estuarine Resources; and Goal 19 - Ocean Resources. DEQ programs and rules that relate to statewide land use goals are considered land use programs if they are:

1. Specifically referenced in the statewide planning goals; or
2. Reasonably expected to have significant effects on
 - a. resources, objectives or areas identified in the statewide planning goals, or
 - b. present or future land uses identified in acknowledged comprehensive plans.

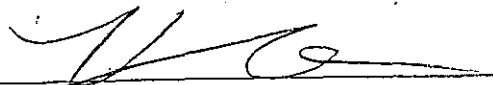
In applying criterion 2 above, two guidelines should be applied to assess land use significance:

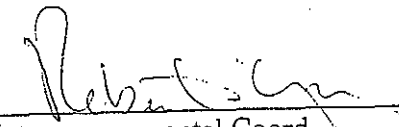
- The land use responsibilities of a program/rule/action that involved more than one agency, are considered the responsibilities of the agency with primary authority.
- A determination of land use significance must consider the Department's mandate to protect public health and safety and the environment.

In the space below, state if the proposed rules are considered programs affecting land use. State the criteria and reasons for the determination.

The pollution control facilities tax credit program is not a land use program. The proposed rules do not affect land use.

3. **If the proposed rules have been determined a land use program under 2. above, but are not subject to existing land use compliance and compatibility procedures, explain the new procedures the Department will use to ensure compliance and compatibility.**


Division


Intergovernmental Coord.

5/5/02
Date

State of Oregon
 Department of Environmental Quality

Memorandum

To: Environmental Quality Commission **Date:** October 1, 2002
From: Stephanie Hallock, Director
Subject: Director's Dialogue

Budget Update

The legislature adjourned its fifth special session in September with a plan to balance the \$482 million state budget shortfall. We understand that the Governor is likely to sign off on major parts of their plan, which includes \$150 million in borrowing, \$44 million in immediate spending cuts and a referral to the voters in January of a temporary (3 year) income tax increase. DEQ's share of the immediate cuts is \$437,000 in General Funds, which we achieved in debt service savings from delaying both the Clean Water State Revolving Fund and Orphan Site cleanup bond sales. Also in the cuts bill, the legislature substituted \$54,000 of Lottery Funds for \$54,000 of General Fund support for the Lower Columbia River Estuary Project.

In addition, the legislature's cuts bill listed agency reductions that will occur if voters fail to pass the income tax measure in January. If the income tax measure fails, we will take an additional \$895,000 in General Fund, the big chunks being \$640,000 in Water Quality and \$157,000 in Air Quality. In the cuts are compressed into the last five months of the biennium, that would mean a loss of 21 additional FTE. We are continuing to manage resources carefully and hold vacant a number of positions that we might be forced to cut. We will shift staff at risk into positions we know we have funding for, and we will be able to do some hiring of positions that are not at risk.

Requests to Legislative Emergency Board

The Legislative Emergency Board is meeting this week to consider agency requests for position authority, for additional spending limitation, and to apply for grant funds. DEQ has four requests for the committee: (1) approval to receive federal funds to improve public access to local air quality data and "near real-time" information, with an associated increase in federal funds limitation; (2) approval to apply for \$241,706 of EPA grant funds for enforcement and compliance work, specifically, to train storm water system inspectors, improve air quality databases for reporting, and connect databases for air, water and land quality to assist enforcement; (3) approval to create a limited duration position for the Pollution Control Tax Credit program, needed to support a significant increase in applications over the past two years; and (4) approval to establish three limited duration positions to implement new federal storm water regulations. Funding for the new positions would come from fees.

In November, the Emergency Board will meet again to consider agency requests. Currently, we plan to bring three items to the committee for approval. First, we will ask the committee to accept our report on privatizing the Vehicle Inspection Program, which the Legislature directed us to explore in a 2001-03 budget note. DEQ's report investigates what it would take to privatize the program, evaluates the bids we received for running the program, provides recommendations, and identifies issues regarding timing and transition of the program to a private operator. The

second request we will make to the November E-Board is for approval to receive EPA “Innovations” Grant funds to create a streamlined, multimedia permit for sediment re-handling facilities, targeted at managing dredged sediments. The permit would make sediment handling and reuse more cost-effective for local businesses, and would be more protective of water quality. Third, we will be asking for additional spending limitation for the water quality program, necessary to adjust spending to current fee revenue and federal funding levels.

Legislative Review of TMDL Rules and Aerial Temperature Mapping

Recently, the Joint Legislative Committee on Stream Restoration and Species Recovery asked natural resource agencies for lists of in-progress rulemakings. From those lists, the Committee selected a number of rules to review at their October 8 meeting, including DEQ’s water quality rules to establish procedures for implementing Total Maximum Daily Loads (TMDLs). We expect the committee to discuss and comment on the rule. They also plan to review rules of the Division of State Lands and the Oregon Department of Fish and Wildlife.

In addition, the committee asked DEQ to give a presentation on the aerial mapping of water temperatures that supports TMDL development. “FLIR,” Forward Looking Infrared Radiometer (FLIR) Thermal Imaging, takes continuous measurements of surface water temperatures from a plane flying above the length of a stream. The technology provides high quality data for modeling temperature, including the benefits of streamside vegetation and shade, effects of groundwater/surface water connections, stream channel influences and other factors. DEQ has used this aerial mapping technology in a number of TMDLs statewide.

Results of DEQ’s Information Management Assessment Project

After nine months of teamwork and evaluation by over 70 DEQ managers and staff, the Information Management Assessment Project (IMAP) has provided recommendations for how we could be more effective and efficient in using our information management resources. Each biennium, DEQ invests \$10 million and 56 FTE to manage environmental information and make that information accessible to employees and Oregonians. To make the best use of those resources, the Executive Management Team endorsed IMAP recommendations to build DEQ’s infrastructure for consistent information management, to increase the agency’s capacity to develop and effectively use information, and to do a better job of providing staff, customers and citizens with the right information at the right time. Helen Lottridge, Management Services Division Administrator, will continue to lead implementation of the IMAP recommendations as Chief Information Officer and Holly Schroeder will continue to serve as Acting MSD Administrator for the rest of the biennium.

We expect these improvements will deliver a high return on investment, strengthening DEQ’s use of science-based information and ensuring information management resources are put toward our highest priorities. Ultimately, customers will have easier access to help, and service quality will be known through agency measures. People will know where and how to get information from DEQ, and will have easier access to experts for answering questions. DEQ employees will have more certainty that the information they use is reliable and current. Although improvements will be phased in over the next three years, we anticipate some relatively immediate benefits for staff and customers. Helen and Dawn Farr have done a fantastic job leading this effort. You will hear more about the progress of information management improvements over the next year.

Status of the Umatilla Chemical Depot

On July 30, the Umatilla Chemical Agent Disposal Facility (UMCDF) began Hazardous Waste operations using surrogate chemicals. The facility is now in "shakedown period 1" and testing of the Liquid Incinerator 1 (LIC 1) is underway. During shakedown, we expect some technical and regulatory challenges will emerge as the facility gains more operational knowledge. We recognize that the UMCDF permit may need to be modified to allow successful shakedown operation and facility testing, while remaining in compliance and protecting public safety and the environment. For example, the Department received a permit modification request from the Army on September 16, and issued approval on September 18, to allow expanded instrument testing.

In addition, results of a mini-burn test conducted on August 18 and 19 indicate that the facility's Destruction and Removal Efficiency (DRE) achieved the "6 nine's standard" required by the permit; 5 heavy metals, however, exceeded allowable emission rates. After reviewing the metals emissions data and Pre-trial Burn Human Health Risk Assessment, DEQ determined that there was no additional risk to the public from this test. We are now working with the Army to ensure that future metals testing does not result in an exceedance of allowable emission rates. We plan to closely monitor the LIC 1 trial burn, which is expected to occur this month. Successive furnaces will begin hazardous waste operations in upcoming months. In August, the Deactivation Furnace was fired and is currently undergoing systemization prior to treating surrogate chemicals later this fall.

Finally, since September 4, DEQ has issued five Notices of Noncompliance to the Army and Washington Demilitarization Company (WDC) for violations of the UMCDF permit. Violations included a recent event when an employee removed a vial of dilute chemical agent from the Depot, the exceedance of allowable emission rates for heavy metals, the feeding of hazardous waste at a time when instruments were not operating properly, modifying a tank system without a permit, and failure to obtain Department approval before restarting hazardous waste treatment after a shutdown. We are now evaluating potential civil penalties for these violations, and the Army and WDC are working with us to correct the violations and improve permit compliance.

DEQ Activities During Worst Wildfire Season on Record

The summer of 2002 was one of the worst wildfire seasons in Oregon history. By the end of September, over 1 million acres burned in the state, about half of which were burned by the Biscuit Fire in southwestern Oregon. The entire Kalmiopsis Wilderness Area was burned by this wildfire.

During July, August and September, DEQ monitored smoke levels statewide and worked with local county health departments on potential risks from wildfire smoke, helping to issue public health advisories. As a result of the fires, levels of particulate matter in the air exceeded daily health standards in Medford, Klamath Falls and Lakeview. Many smaller communities in southern and central Oregon experienced major smoke impacts as well. DEQ tracked smoke levels in smaller communities through a monitoring network established several years ago by federal land managers at DEQ's urging, originally used to track effects of planned prescribed burns. To address the major smoke impacts in Brookings from the Biscuit Fire, we worked with the Governor's office and the local health department to set up temporary smoke monitoring equipment near the community.

In addition, DEQ worked with the Oregon Department of Forestry to create special daily weather forecasts that allowed us to anticipate locations of potential smoke impacts based on weather. This proved particularly valuable in southern Oregon. Finally, we added considerable information to DEQ's website on the potential health risks of wildfire smoke, methods for visually estimating smoke exposure, and links to other websites containing official updates on ongoing wildfires in the state. Air quality events like this do not affect Oregon's national air quality status because EPA has specific provisions that consider these event "natural."

Status of Columbia River Channel Deepening

On September 9, DEQ received an application from the Corps of Engineers for a water quality certification¹ to deepen the Columbia River navigation channel by an additional three feet, to 43 feet. DEQ previously denied certification for this project in September 2000, as did the Oregon Department of Land Conservation and Development, Washington Department of Ecology and National Marine Fisheries Service. Since then, the Corps and sponsoring ports worked primarily with the National Marine Fisheries Service on changes needed to obtain a biological opinion that would allow the project to proceed. That opinion was released earlier this year.

We are now working with the Corps to acquire information needed to complete the application, and will then solicit comments from local land use planning jurisdictions and the general public. We anticipate being ready to certify, deny, or certify the project with conditions in mid-February 2003.

2003 EQC Meetings Set

As you know, we have set EQC meeting dates for 2003. Because of budget limitations and the cost of transporting and lodging staff in areas outside of Portland, we plan to hold only three meetings away from the Portland area. Our tentative plan includes meeting in John Day on June 26-27, in Brookings or Port Orford on October 9-10, and in Hermiston at a time corresponding to Commission approval of the start of chemical agent operations at the Umatilla Disposal Facility. Depending on the timing of that approval, a special meeting may be added to the schedule below.

January 30-31

March 20-21

May 8-9

June 26-27

August 14-15

October 9-10

December 4-5

Potential Joint Meetings for 2003

In 2001, the Commission identified priority Boards and Commissions that it wanted to meet with jointly, and decided to strive for two joint meetings per year. That fall, the EQC met with the Oregon Watershed Enhancement Board. In 2002, a joint meetings with the Oregon Water Resources Commission occurred in June and a meeting with the Oregon Economic and

¹ under Section 401 of the Clean Water Act

Community Development Commission will happen December 12-13. Previously, Commissioners suggested joint meetings with the Land Conservation and Development Commission and Oregon Board of Education as potential joint meetings for 2003. A joint meeting with the Oregon Board of Forestry might also be interesting. Your input on these and other potential joint meetings will help us structure next year's schedule.

State of Oregon
Department of Environmental Quality

Memorandum

Date: September 30, 2002
To: Environmental Quality Commission
From: Stephanie Hallock, Director *S. Hallock*
Subject: Revision to Agenda Item L, Rule Adoption: Dry Cleaning Facilities and Dry Stores, October 4, 2002 EQC Meeting

What is being revised? The proposed rules for Dry Cleaning Facilities and Dry Stores (Attachment A-1) that will be presented for Commission adoption on October 4, 2002, have been revised to correct inconsistent use of grammar and punctuation in the rule.

Why is this change being proposed? The proposed rules delivered to you on September 10, 2002, contained grammatical and punctuation inconsistencies which made the rules difficult to read and understand. Specifically, commas, semicolons and periods separating items in lists in the rule were used inconsistently. In some places, the word *shall* was used instead of *will* or *must*, which are more appropriate for the rule. Sentences were separated by two spaces rather than one.

The Department considers these changes important to prevent uncertainty or confusion about how the rules apply to various facilities or conditions. Department staff consulted with the Assistant Attorney General in making these changes.

Department Recommendation The Department recommends the Commission consider adoption of the revised, proposed rules for Dry Cleaning Facilities and Dry Stores as presented in Attachment A-1.

Attachment Revised Proposed Rules: *Division 124 Standards Applicable to Dry Cleaning Facilities and Dry Stores.*

DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION 124
STANDARDS APPLICABLE TO DRY CLEANING FACILITIES AND DRY STORES

340-124-0010

Purpose of Rules

- (1) These rules establish the standards and procedures to be used to implement ORS 465.200 and 465.500 through 465.548.
- (2) These rules establish:
 - (a) Definitions for terms used in the rules;
 - (b) Requirements for minimizing waste and releases from dry cleaning facilities;
 - (c) Conditions dry cleaning facilities must meet to be eligible for funding;
 - (d) Criteria used to determine the order in which remedial actions receive funding;
 - (e) Criteria used to reimburse dry cleaner owners and dry cleaner operator for preapproved remedial action costs; and
 - (f) The process by which inactive sites will be listed as required in accordance with Section 16 of 2001 Oregon Laws chapter 495.

Stat. Auth.: ORS 465.505(5), ORS 468.020

Stats. Implemented: ORS 465.200 and ORS 465.500 through 465.548

Hist.:

340-124-0015

Applicability

These rules are applicable to:

- (1) Persons operating a dry cleaning facility or dry store.
- (2) Persons delivering perchloroethylene to a dry cleaning facility in Oregon.
- (3) Persons who own real property underlying active and inactive dry cleaning facilities.
- (4) Persons generating hazardous waste at a dry cleaning facility.

Stat. Auth.: ORS 465.505(5), ORS 468.020

Stats. Implemented: ORS 465.200 and ORS 465.500 through 465.548

Hist.:

340-124-0020

Definitions

For the purposes of OAR 340-124-0010 to 340-124-0080, unless otherwise defined therein, the words and phrases used in these rules have the following meanings:

- (1) “Account” means the Dry Cleaner Environmental Response Account created under ORS 465.510.
- (2) “Claim” means a demand in writing for payment from the Account for cleanup at a dry cleaning facility.
- (3) “Claimant” means the person who files a claim against the Account.
- (4) “Closed direct-coupled delivery system” means the method and equipment necessary to deliver perchloroethylene solvent to a dry cleaning facility that minimizes the opportunity for perchloroethylene to be released. Closed direct-coupled delivery includes delivery of solvent to the dry-cleaning facility in containers that are pumped into the dry cleaning machine using closed, self-sealing

couplings on both the machine and the delivery line for input of solvent into the dry cleaning machine and closed, self-sealing couplings on the vapor displacement outlet on both the machine and the vapor vent line that captures perchloroethylene gas vapors and returns them to the delivery container.

- (5) “Commission” means the Environmental Quality Commission.
- (6) “Container” means a portable device in which material is stored, transported, treated, disposed of or otherwise handled.
- (7) “Department” means the Department of Environmental Quality.
- (8) “Director” means the Director of the Department of Environmental Quality.
- (9) “Dry Cleaner Environmental Response Account” means the Account created under ORS 465.510.
- (10) “Dry cleaning facility” means any active or inactive facility located in this state that is or was engaged in dry cleaning apparel and household fabrics for the general public, and dry stores, other than :
 - (a) A facility located on a United States military base;
 - (b) A uniform service or linen supply facility;
 - (c) A prison or other penal institution; or
 - (d) A facility engaged in dry cleaning operations only as a dry store and selling less than \$50,000 per year of dry cleaning services.
- (11) “Dry cleaning operator” means a person who has, or had, a business license to operate a dry cleaning facility or a business operation that a dry cleaning facility is a part of or any person that owns the dry cleaning business, leases the operation of the dry cleaning business from the owner, or makes any other kind of agreement or arrangement where by they operated the dry cleaning business.
- (12) “Dry cleaning owner” means a person who owns or owned the real property underlying a dry cleaning facility.
- (13) “Dry cleaning solvent” means any nonaqueous solvent for use in the cleaning of garments or other fabrics at a dry cleaning facility, including but not limited to perchloroethylene and petroleum based solvents and the products into which dry cleaning solvents degrade.
- (14) “Dry cleaning wastewater” means water from the solvent/water separation process of the dry cleaning machine.
- (15) “Dry store” means a facility that does not include machinery using dry cleaning solvents. A dry store includes but is not limited to a pickup store, drop off store, call station, agency for dry cleaning, press shop, route service, pickup and delivery service that is operated by an independent contractor.
- (16) “Dry store operator” means the person who controls the operation of a dry store.
- (17) “Enrolled inactive dry cleaning facility” means property formerly used, but not currently used, for providing dry cleaning services, and that is on the Department’s list of inactive dry cleaning facilities established in accordance with Section 16 of 2001 Oregon Laws chapter 495 and OAR 340-124-0080.
- (18) “Environment” includes the waters of the state, any drinking water supply, any land surface and subsurface strata and ambient air.
- (19) “Facility” means any building, structure, installation, equipment, pipe or pipeline including any pipe into a sewer or publicly owned treatment works, well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, above ground tank, underground storage tank, motor vehicle, rolling stock, aircraft, or any site or area where a hazardous substance has been deposited, stored, disposed of, or placed, or otherwise come to be located and where a release has occurred or where there is a threat of a release, but does not include any consumer product in consumer use or any vessel.
- (20) “Free phase dry cleaning solvent” means solvent that has separated from water in the solvent/water separation process of the dry cleaning machine and consists primarily of pure solvent.
- (21) “Hazardous waste” means a hazardous waste as defined in 40 CFR 261.3 (2002).
- (22) “Hazardous waste determination” means the process in OAR 340-102-0011 (2002).
- (23) “Inactive dry cleaning facility” means property formerly used, but not currently used, for providing dry cleaning services.
- (24) “Non-enrolled inactive dry cleaning facility” means property formerly used, but not currently used, for providing dry cleaning services, that is not on the Department’s list of inactive dry cleaning facilities established in accordance with Section 16 of 2001 Oregon Laws chapter 495 and OAR 340-124-0080.

- (25) “Person” means an individual, trust, firm, joint stock company, joint venture, consortium, commercial entity, partnership, association, corporation, commission, state and any agency thereof, political subdivision of the state, interstate body or the federal government including any agency thereof.
- (26) “Release” means any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing into the environment including the abandonment or discarding of barrels, containers and other closed receptacles containing any hazardous substance, or threat thereof, but excludes:
- (a) Any release that results in exposure to a person solely within a workplace, with respect to a claim that the person may assert against the person's employer under ORS chapter 656;
 - (b) Emissions from the engine exhaust of a motor vehicle, rolling stock, aircraft, vessel or pipeline pumping station engine;
 - (c) Any release of source, by-product or special nuclear material from a nuclear incident, as those terms are defined in the Atomic Energy Act of 1954, as amended, if the release is subject to requirements with respect to financial protection established by the Nuclear Regulatory Commission under section 170 of the Atomic Energy Act of 1954, as amended, or, for the purposes of ORS 465.260 or any other removal or remedial action, any release of source by-product or special nuclear material from any processing site designated under section 102(a)(1) or 302(a) of the Uranium Mill Tailings Radiation Control Act of 1978; and
 - (d) The normal application of fertilizer.
- (27) “Remedial action” means those actions consistent with a permanent remedial action taken instead of or in addition to removal actions in the event of a release or threatened release of a hazardous substance into the environment, to prevent or minimize the release of a hazardous substance so that it does not migrate to cause substantial danger to present or future public health, safety, welfare or the environment. “Remedial action” includes, but is not limited to:
- (a) Such actions at the location of the release as storage, confinement, perimeter protection using dikes, trenches or ditches, clay cover, neutralization, cleanup of released hazardous substances and associated contaminated materials, recycling or reuse, diversion, destruction, segregation of reactive wastes, dredging or excavations, repair or replacement of leaking containers, collection of leachate and runoff, on-site treatment or incineration, provision of alternative drinking and household water supplies, and any monitoring reasonably required to assure that the actions protect the public health, safety, welfare and the environment.
 - (b) Offsite transport and offsite storage, treatment, destruction or secure disposition of hazardous substances and associated, contaminated materials.
 - (c) Such actions as may be necessary to monitor, assess, evaluate or investigate a release or threat of release.
- (28) “Remedial action costs” means reasonable costs which are attributable to or associated with a removal or remedial action at a facility, including but not limited to the costs of administration, investigation, legal or enforcement activities, contracts and health studies.
- (29) “Removal” means the cleanup or removal of a released hazardous substance from the environment, such actions as may be necessary taken in the event of the threat of release of a hazardous substance into the environment, such actions as may be necessary to monitor, assess and evaluate the release or threat of release of a hazardous substance, the disposal of removed material, or the taking of such other actions as may be necessary to prevent, minimize or mitigate damage to the public health, safety, welfare or to the environment, that may otherwise result from a release or threat of release. “Removal” also includes but is not limited to security fencing or other measures to limit access, provision of alternative drinking and

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household water supplies, temporary evacuation and housing of threatened individuals and action taken under ORS 465.260.

(30) "Wastewater treatment unit" means a device that meets the definition in 40 CFR 260.10 (2002). Note: Because dry cleaning wastewater can be a federal hazardous waste, all onsite treatment of this waste shall occur in a device that meets the federal definition of wastewater treatment unit.

Stat. Auth.: ORS 465.505(5), ORS 468.020

Stats. Implemented: ORS 465.200 and ORS 465.500 through 465.548

Hist.:

340-124-0040

Waste Minimization Requirements

In addition to the otherwise applicable hazardous waste management requirements of OAR 340-100-0001 and OAR 340-100-0002 that apply to hazardous waste generators and facilities, the following waste minimization requirements implement ORS 465.505. The following apply to dry cleaning facilities and dry stores:

(1) Hazardous waste:

(a) Persons generating hazardous waste at a dry cleaning facility in amounts of 220 pounds a month or less or who never store onsite more than 2,200 pounds of hazardous waste shall manage hazardous waste as follows:

(A) All waste meeting the state and federal criteria for hazardous waste identified in OAR 340-102-0011, excluding wastewater, generated at a dry cleaning facility and containing dry cleaning solvents, shall be managed and disposed of regardless of quantity generated as a hazardous waste at a permitted hazardous waste treatment, storage, disposal or recycling facility or at some other waste disposal facility approved by the Department;

(B) Store all hazardous wastes, including dry cleaning wastewater, in closed containers labeled with the words "hazardous waste" and the date waste was first placed in the container;

(C) Ship hazardous waste offsite within one year of placing waste in the hazardous waste container, and

(D) May submit a written request for an extension of one additional year to store hazardous waste onsite prior to shipping it offsite if the dry cleaning facility is in a remote location in Oregon, or if the dry cleaning facility does not generate hazardous waste in economically feasible quantities to ship within one year of the date the waste was placed in the container;

(E) Retain onsite hazardous waste shipping records for three years; and

(F) Post the Oregon Emergency Response System notification information.

(b) Persons accumulating hazardous waste at a dry cleaning facility in amounts greater than 2200 pounds at any time shall consult OAR 340-100-0001 and OAR 340-100-0002 for the applicable hazardous waste regulations that apply.

(c) Persons generating hazardous waste at dry cleaning facilities in amounts greater than 220 pounds but less than 2,200 pounds in a month shall consult OAR 340-100-0001 and OAR 340-100-0002 for the applicable hazardous waste regulations that apply.

(d) Persons generating hazardous waste at dry cleaning facilities in amounts of 2200 pounds or more in a month shall consult OAR 340-100-0001 and OAR 340-100-0002 for the applicable hazardous waste regulations that apply.

(e) Any dry cleaning operator making the claim they do not generate a hazardous waste shall maintain documentation of their hazardous waste determination as required by OAR 340-102-0011 and provide such documentation to the Department on request.

(f) No person shall dispose of or place dry cleaning solvent, filters, lint from dry cleaning machine cleanout, button trap cleanout, prefilter cleanout, spent diatomaceous earth, sludge, dry cleaning

wastewater, still bottoms or other waste material containing hazardous waste dry cleaning solvent in a dumpster or trash receptacle, on the ground or in any location other than in an appropriately labeled hazardous waste storage container for these wastes.

(g) No person shall dispose of or place dry cleaning solvent, filters, lint from dry cleaning machine cleanout, button trap cleanout, prefilter cleanout, spent diatomaceous earth, sludge, dry cleaning wastewater, still bottoms or other waste material containing hazardous waste dry cleaning solvent in a sanitary sewer, drain, storm sewer, septic tank or any other underground structure which may result in a release to the waters of the state.

(h) Each dry cleaning operator or dry cleaning owner of a dry cleaning facility which ceases operation as a dry cleaning facility for 45 continuous days shall remove dry cleaning solvent, including dry cleaning solvent remaining in the dry cleaning machine and waste materials containing dry cleaning solvent from the dry cleaning facility, within 45 days after the last day of operation. A dry cleaning operator or dry cleaning owner shall remove dry cleaning solvent and solvent-containing residue from a dry cleaning machine in accordance with 40 CFR 261.4 (c) prior to the dry cleaning machine being disposed, recycled or reused.

(i) Any dry cleaning operator or dry cleaning owner may request from the Department a written extension of the 45-day time limit in subsection (h) above, subject to Department approval.

(2) Dry cleaning wastewater shall be managed as follows:

(a) Dry cleaning wastewater shall not be discharged into any sanitary sewer, storm sewer, septic system, boiler, or into the waters of the state.

(b) Dry cleaning facilities generating dry cleaning wastewater containing hazardous waste, in amounts of 220 pounds a month or less or never store onsite more than 2,200 pounds of hazardous waste, shall manage the hazardous dry cleaning wastewater as follows:

(A) Collect the wastewater in a closed container, labeled with the words "hazardous waste" and the date waste was first placed in the container, count the wastewater toward the dry cleaning facility's monthly hazardous waste generator category and send the wastewater offsite to a permitted hazardous waste treatment, disposal or recycling facility;

(B) Collect the wastewater in a closed container, labeled with the words "hazardous waste" and the date waste was first placed in the container, count the wastewater toward the dry cleaning facility's monthly hazardous waste generator category unless the wastewater is managed immediately upon generation in a wastewater treatment unit and treated in a wastewater treatment unit; or

(C) Directly pipe the wastewater to a wastewater treatment unit and treat onsite.

(c) Dry cleaning operators treating wastewater containing hazardous waste at a dry cleaning facility in a wastewater treatment unit shall meet the following conditions:

(A) The wastewater treatment unit meets the definition in 40 CFR 260.10, and shall have the following components:

(i) A second solvent water separator settling chamber to recover free-phase dry cleaning solvent from the wastewater that exits the dry cleaning machine's water separator;

(ii) An initial filter with filter media capable of removing dry cleaning solvent dissolved in the dry cleaning wastewater that exits the second solvent water separator;

(iii) A monitor-alarm that automatically shuts down the wastewater treatment unit when the initial filter becomes saturated with solvent; and

(iv) A second filter with filter media capable of removing dry cleaning solvent dissolved in the dry cleaning wastewater after it passes through the initial filter and past the monitor-alarm.

(B) All treated wastewater is evaporated, misted, atomized or released such that no visible liquid deposition or accumulation is present, and the discharge does not create a nuisance according to OAR 340-208-0300;

- (C) All spent filters from the wastewater treatment unit are managed as hazardous waste;
(D) An operational and maintenance manual is kept onsite at all times; and
(E) If the monitor-alarm shuts down the wastewater treatment unit, the dry cleaning operator shall, before continuing to use the wastewater treatment unit:
(i) Replace the initial and second filter with new filters; or
(ii) Replace the initial filter with the used second filter and install a new second filter.
(d) A dry cleaning operator may treat dry cleaning wastewater in equipment other than described in OAR 340-124-0040 (2)(c) provided the following conditions are met:
(A) The equipment meets the definition of wastewater treatment unit in 40 CFR 260.10;
(B) The wastewater treatment unit is designed to remove free phase dry cleaning solvent;
(C) The treated wastewater discharged from the wastewater treatment unit does not meet or exceed the hazardous waste levels in 40 CFR 261.20 to 261.24;
(D) The unit ceases operation if the levels under (C) are exceeded;
(Note: The toxic characteristic hazardous waste regulatory level for perchloroethylene is 0.7 parts per million and for benzene is 0.5 parts per million analyzed by the Toxic Characteristic Leaching Procedure (TCLP). If other hazardous waste constituents are present they must similarly be compared to the hazardous waste levels in 40 CFR 261.20 and 261.24).
(E) Documentation that under normal use, concentrations do not exceed the hazardous waste level in 40 CFR 261.20 to 261.24;
(F) All spent filters from the wastewater treatment unit are managed as hazardous waste;
(G) An operational manual and maintenance manual is kept onsite at all times; and
(H) All treated wastewater is evaporated, misted, atomized or released such that that no visible liquid deposition or accumulation is present and the discharge does not create a nuisance according to OAR 340-208-0300.
(e) Dry cleaning wastewater containing hazardous waste may be treated in a wastewater treatment unit other than that described in OAR 340-124-0040 (2)(c) provided the treatment process utilizes a technology that is capable of providing equivalent or better levels of solvent removal than the limits defined in OAR 340-124-0040 (2)(d) of this rule. Any person proposing to use an alternate wastewater treatment unit shall demonstrate that the alternative unit provides treatment at equivalent or better levels of solvent removal under operational conditions than the limits defined in OAR 340-124-0040 (2)(d) of this rule. All requests for an alternative wastewater treatment unit will be submitted to the Department in writing.
(3) Containment systems:
All dry cleaning operators shall comply with the following requirements to be in compliance with ORS 465.505:
(a) A secondary containment system under and around the dry cleaning machine must be constructed of rigid metal material impermeable to the solvent in use. Dry cleaning machine containment systems must be installed in such a way as not to compromise the integrity of the containment. A secondary containment system under and around the dry cleaning machine shall be capable of containing at least 110% of the capacity of the largest tank in the dry cleaning machine for 72 hours. The containment system for a dry cleaning machine shall extend to the outside perimeter of the dry cleaning machine to provide protection from leaks and drips from seals;
(b) All sealant and caulk used on each secondary containment system shall be impermeable and impervious to the dry cleaning solvent and dry cleaning waste in use, inspected for leaks, and maintained in a non-leaking condition;
(c) A secondary containment system under and around dry cleaning solvent stored at a dry cleaning facility shall be constructed of rigid material impermeable to the solvent in use and capable of containing 110 percent of the capacity of solvent being stored;
(d) Outdoor storage areas shall be secured and covered to protect from accumulation of rainfall and unauthorized entry;

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(e) A secondary containment system under and around the wastewater treatment unit shall be constructed of rigid material impermeable to the solvent in use and capable of containing 110 percent of the capacity of each wastewater treatment unit;

(f) A secondary containment system under and around a hazardous waste storage container/s shall be constructed of rigid material impermeable to the solvent in use and capable of containing 110 percent of the volume of the liquid contained in each hazardous waste storage container. Outdoor storage areas shall be secured and covered to protect from accumulation of rainfall and unauthorized entry;

(g) All other items of equipment in which dry cleaning solvent is used, treated or stored shall have secondary containment constructed of rigid material impermeable to the solvent in use and capable of containing 110 percent of the volume of the liquid contained in each piece of equipment; and

(h) Any dry cleaning operator may petition the Department to use another material for secondary containment for the dry cleaning machine, provided they can demonstrate to the Department that the material is impermeable to the dry cleaning solvent in use.

(4) Annual reporting for dry cleaning facilities and dry stores:

(a) All dry cleaning operators and/or owners of a dry cleaning business shall report annually to the Department on forms supplied by the Department regarding compliance with the waste minimization requirements set forth in this rule; and

(b) All dry store operators shall report to the Department annually on forms supplied by the Department.

(5) Spill reporting:

(a) All dry cleaning operators shall prominently post the Oregon Emergency Response System telephone number 1-800-452-0311, so the number is immediately available to employees of the dry cleaning facility in case on an emergency;

(b) All spill reporting shall be made to the Oregon Emergency Response System, OERS;

(c) All dry cleaning operators shall report the release of more than 1 pound of dry cleaning solvent in a 24-hour period released outside of a containment system;

(d) All dry cleaning operators shall take emergency action as required by OAR 340 Division 142 "Oil and Hazardous Materials Emergency Response Requirements" for releases of more than 1 pound of dry cleaning solvent in a 24-hour period released outside of a containment system; and

(e) Dry cleaning operators are not required to report releases of dry cleaning solvent, provided the release is contained within an existing containment system, is cleaned up immediately, and repairs are made immediately to the cause of the release.

(6) Closed direct-coupled delivery of perchloroethylene:

(a) All perchloroethylene dry cleaning machines shall be fitted with closed, self-sealing couplings for input of solvent into the dry cleaning machine and closed, self-sealing couplings on the vapor displacement outlet that captures perchloroethylene gas vapors and returns the vapor to the delivery container; and

(b) All suppliers of perchloroethylene to dry cleaning facilities shall deliver solvent to the dry cleaning facility in containers that are fitted with closed, self-sealing couplings on the delivery line for input of solvent into the dry cleaning machine and closed self-sealing couplings on the vapor displacement vent line that captures perchloroethylene gas vapors and returns the vapor to the delivery container, or the supplier of perchloroethylene solvent may use an alternative delivery system to that required in (6)(b), subject to the condition that the system provides the same or better protection from releases and is approved by the Department. All requests for alternative systems shall be submitted in writing, including system schematic to the Department for approval.

Stat. Auth.: ORS 465.505(1)(c) and 465.505(5), ORS 468.020

Stats. Implemented: ORS 465.505:

Hist.:

340-124-0050

Notification of Change at A Dry Cleaning Business or Dry Store.

(1) The dry cleaning operator and/or dry store operator shall notify the Department on forms provided by the Department within 60 days of the applicable activities listed below:

- (a) Closure of a dry cleaning business;
- (b) Closure of a dry store;
- (c) Change of dry cleaning owner;
- (d) Change of dry cleaning operator;
- (e) Change of dry store operator;
- (f) Sale of a dry cleaning business;
- (g) Opening a new dry cleaning business; and
- (h) Opening a new dry store.

Stat. Auth.: ORS 465.505(5), ORS 468.020

Stats. Implemented: ORS 465.505 :

Hist.:

340-124-0055

Requirements for Dry Stores.

Any dry cleaning machinery at a dry store location shall have dry cleaning solvent and solvent-containing residue removed from the dry cleaning machinery in accordance with 40 CFR 261.4 (c) and the dry cleaning machine shall not be connected to any utilities.

Stat. Auth.: ORS 465.505(5), ORS 468.020

Stats. Implemented: ORS 465.505

Hist.:

340-124-0060

Funding from Dry Cleaner Environmental Response Account at Dry Cleaning Facilities

(1) For a contaminated dry cleaning facility to receive funding for remedial actions, conditions A through C must be met.

(a) The person performing the remedial action shall submit a claim on a form to be provided by the Department:

(A) If the claimant is not the real property owner, the claim shall provide proof that the real property owner has been notified of the claim;

(B) If the property is leased, and the claimant is not the lessee, the claimant shall provide proof that the lessee has been notified of the claim;

(C) The claim must contain the information requested by the Department, as well as all other known information concerning environmental contamination at the contaminated dry cleaning site.

(b) The Department will review the completed claim and make a funding determination considering the criteria set forth in OAR 340-124-0065 and 0070.

(c) The Department shall send a written notice of the funding determination to the claimant as soon as a determination is made. If the site is determined ineligible for funding, the notice of the determination shall state the reason or reasons for ineligibility.

(d) The claimant shall be responsible for the deductible required under ORS 465.510(a) and (b). Adequate employee payroll records that document and support the number of employees employed in the dry cleaning business at the time of the release shall be provided to the Department. If the time of release is not known, the deductible will be calculated using the current number of employees. If adequate employee records are not available, the deductible shall be \$10,000.

(2) If an active dry cleaner becomes out of compliance with the requirements in ORS 465.505 (waste minimization), excluding subsection (3) (reporting), during the period of time the Department is assessing or remediating a site, the dry cleaner will be responsible for costs incurred by the Department at the site during the period of time the claimant was out of compliance. Costs incurred while the claimant was in compliance will be paid for from the Account.

(3) Inactive dry cleaning facilities must be enrolled on a list as established in OAR 340-124-0080 to be eligible for funding from the Account.

(4) If a claimant withdraws as a claimant, the Department may stop payment from the Account for remediation costs incurred at the dry cleaning facility.

Stat. Auth.: ORS 465.505(5), ORS 468.020

Stats. Implemented: ORS 465.510

Hist.:

OAR 340-124-0065 **Priority Ranking System**

The Department shall determine the order in which to use funds from the Account using standardized site assessment prioritization criteria. The criteria shall include but not be limited to:

(1) Risk to the environment based on the following:

(a) Solvent and waste containment;

(b) Depth to which soil is contaminated with dry cleaning solvent;

(c) Depth to groundwater;

(d) Distance to known groundwater wells;

(e) Soil type;

(f) Distance to surface water;

(g) Quantity of soil or groundwater contaminated with dry cleaning solvent;

(h) Current and reasonably likely future use of groundwater and land affected by contamination;

(i) Toxicity of dry cleaning solvent;

(j) Water solubility of dry cleaning solvent;

(k) Land use and sensitive populations near hazardous substance;

(l) Vulnerable areas near hazardous substance; and

(m) Likelihood for direct exposure to hazardous substance.

(2) Each facility's risk relative to the risk posed by other facilities.

(3) The need for removal or remedial action at the dry cleaning facility relative to Account availability.

(4) The nature of the activities for which expenditures are necessary, in the following order of preference:

(a) Direct cost of cleanup, provided that adequate technical investigation has been completed;

(b) Direct cost of technical investigation and remedy evaluation;

(c) Administrative and indirect costs; and

(d) Enforcement, cost recovery and legal actions.

(5) The Department may also consider the following:

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- (a) The release was caused by gross negligence of the dry cleaning business owner, dry cleaning property owner or dry cleaning operator;
 - (b) The release resulted from an action or omission that was a violation by the dry cleaning business owner, dry cleaning property owner or dry cleaning operator of federal or state laws in effect at the time of the release, including but not limited to waste minimization requirements imposed under OAR 340-124;
 - (c) The dry cleaning business owner, dry cleaning property owner or dry cleaning operator willfully concealed a release of dry cleaning solvent contrary to laws and regulations in effect at the time of the release or did not comply with release reporting requirements applicable at the time of the release;
 - (d) The dry cleaning business owner, dry cleaning property owner or dry cleaning operator denies access or unreasonably hinders or delays removal or remedial action necessary at the facility; or
 - (e) The dry cleaning operator of the facility where the release occurred has failed to pay fees under ORS 465.517 to 465.523 in relation to dry cleaning activity at any dry cleaning facility.
- Note: The above provisions are contained in ORS 465.503(3).
- (6) In instances when redevelopment or other activity at a contaminated dry cleaner site creates an opportunity to reduce the cost of remedial action, the Department may include the cost savings into the prioritization.
 - (7) For low priority sites the site assessment prioritization scores will be increased each year the site is on the program waiting list.

Stat. Auth.: ORS 465.505(5), ORS 468.020

Stats. Implemented: ORS 465.510(3)

Hist.:

OAR 340-124-0070

Remedial Actions Prior to Funding from Account

- (1) A person performing remedial action at a dry cleaning facility may apply to the Department to be reimbursed by the Account for remedial action costs incurred. The Department may use funds from the Account to reimburse the claimant for remedial action costs at the facility under the following circumstances:
 - (a) Reimbursement from the Account shall be made in accordance with a written agreement or order between the claimant and the Department expressly authorizing reimbursement from the Account. The agreement or order must be entered into before the claimant conducts any remedial action for which reimbursement will be sought;
 - (b) Actions of the claimant expedite remedial action at the site;
 - (c) Remedial actions are conducted under Departmental oversight pursuant to the agreement or order;
 - (d) Costs are preapproved and determined by the Department to be reasonable and necessary;
 - (e) Funds from the Account will not be used for costs incurred during remedial action due to negligence or incompetence of claimant or claimant's agent; and
 - (f) A claim filed against the Account may be paid only from monies in the Account and only in accordance with the provisions of these rules. Any obligation to pay or reimburse claims against the Account shall be expressly contingent upon availability of monies in the Account. Neither the State nor any of its agencies shall have any obligation to pay or reimburse any costs for which monies are not available in the Account.
- (2) If a claimant undertakes actions that are preapproved and reimbursable, a DEQ order or agreement before Account money is available for reimbursement, funds shall be obligated for and reimbursed to the

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claimant for eligible expenses, as funds become available pursuant to the priority ranking system in section OAR 340-124-065.

(3) Claimants shall meet all requirements for fund eligibility applicable at the time the activities are performed in order to receive reimbursement.

(4) Only work plans and cost proposals approved in writing by Department staff prior to remedial action being conducted are eligible for reimbursement.

(5) The Account shall provide reimbursement for the reasonable cost of Department-preapproved, investigation and remedial action. All costs consistent with cost proposals approved by the Department shall be considered reasonable costs.

(6) Claims for reimbursement of costs shall be submitted in a format established by the Department and shall, at a minimum, include an itemization of all charges according to labor hours and rates, analytical charges, equipment charges, and other categories which may be identified by the Department, or which the claimant may wish to provide.

(7) A claim for payment shall be received within one year from the date of performance of the work, which is the subject of the claim.

(8) Payments from the Account will be made directly to the claimant. The claimant is responsible for final payments to the contractor(s) performing the work.

Stat. Auth.: ORS 465.505(5), ORS 468.020

Stats. Implemented: ORS 465.510

Hist.:

340-124-0080

Enrolled Inactive Site List

(1) The opportunity to be listed is limited to inactive dry cleaning facilities eligible to receive funding from the Account as of December 31, 2001.

(2) To be eligible to receive funding from the Dry Cleaner Environmental Response Account, the current or former owner or former operator of an inactive dry cleaning facility or its representative must submit a completed Listing Application Form as provided by the Department.

(a) For facilities that became inactive before December 31, 2001, an application for listing must be submitted on or before January 1, 2003.

(b) For facilities that became inactive after January 1, 2002, an application for listing must be submitted within 180 days of becoming an inactive dry cleaning facility.

(3) The Listing Application Form shall include the following information:

(a) Dry cleaning facility name, address, contact person, telephone number and date facility began dry cleaning operations.

(b) Dry cleaner operator information, including name, mailing address, contact person, phone number;

(c) Information pertaining to the owner of the underlying real property, including owner name, mailing address, contact person, phone number;

(d) Evidence that the dry cleaner operator operated the inactive facility listed on the application (e.g. local business license, receipts from dry cleaning supplies, tax returns, contracts, insurance policies); and

(e) Any other information the Department may request.

(4) An application is not complete and the Department shall reject any application in any of the following circumstances:

(a) Applicant fails to provide information required by subsection 3 of this section;

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(b) Applicant falsified any information in its application that was material to the determination of the eligibility of the facility, priority ranking, nature, scope and extent of contamination to be assessed or remediated, or the appropriate means to contain and remediate the contaminants.

(c) The \$250 application fee is not paid.

(5) Fees established in Section 16 of 2002 Oregon Laws chapter 495 shall be paid to maintain funding eligibility on an enrolled inactive facility until DEQ has issued a determination that no further action is necessary to remediate the site. The applicant may extend funding eligibility on an enrolled inactive dry cleaning facility after the no further action determination by continuing to pay the applicable annual fee.

Stat. Auth.: ORS 465.505(5), ORS 468.020

Stats. Implemented: Section 16, chapter 495, Oregon Laws 2001

Hist.:

State of Oregon
Department of Environmental Quality

Memorandum

Date: September 10, 2002
To: Environmental Quality Commission
From: Stephanie Hallock, Director *S. Hallock*
Subject: Agenda Item L, Rule Adoption: Administrative Rules Applicable to Dry Cleaning Facilities and Dry Stores
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Department Recommendation The Department recommends the Commission adopt proposed rules regarding prevention and cleanup of contamination at dry cleaner sites (Attachment A).

Need for Rulemaking In 1995 the dry cleaner industry proposed legislation to provide relief for liability under Oregon's cleanup law. The dry cleaner industry was concerned that the law could put many individual dry cleaners out of business. In response, the Legislature passed a statute creating an insurance pool to pay cleanup costs for dry cleaners and restricting certain dry cleaners liability for cleanup. Rulemaking was requested by the dry cleaning industry to clarify dry cleaners' requirements to be eligible for the benefits of the program. The proposed rules are required by statute to implement changes to the dry cleaner program made during the 2001 Legislative session. This rulemaking implements the 2001 law.

Effect of Rule The proposed rules put in place the Department's existing dry cleaner program which previously existed only in guidance and statute. Major aspects of the proposed rules include:

- Requirements for dry cleaners to implement waste minimization and hazardous waste management practices designed to eliminate future releases of hazardous waste to the environment. (Attachment A-1, pages 4 through 7, Section 340-124-0040).
- Using the Dry Cleaner Environmental Response Account to clean up dry cleaning solvents at contaminated sites. (Attachment A-1, Pages 8 through 12, Sections 340-124-0060 through 0080).

Putting these program aspects into rule will clarify eligibility requirements to industry and determine how the funds will be used to clean up contaminated sites.

Commission Authority The Commission has authority to take this action under ORS 465.505(5) and ORS 468.020.

Stakeholder Involvement The Department's dry cleaner program staff have met regularly with an appointed advisory committee since the enabling legislation was passed in 1995.

the proposed rules being submitted to the Commission.

Next Steps The rules will be effective upon filing after Commission adoption. A series of 10 fact sheets, each specific to a different aspect of the dry cleaner program, will be sent out to all dry cleaners as part of our outreach to the industry. The Department will continue to attend industry association meetings to provide information to industry members as requested. An application for listing inactive sites and a form to submit a cleanup claim will also be available on request. All fact sheets and forms will be available in Korean as well as English. The dry cleaner web page will also be updated to include all the information in the new fact sheets and links to other state programs affecting dry cleaner operations, such as the Department of Revenue, OSHA and the State Fire Marshall. Applications for listing inactive sites will be processed by the Department. If a large number of applications are received, temporary staffing of 0.25 FTE may be hired to verify and input information and to collect application fees. The Rule Implementation Plan is available upon request.

Attachments

- A. Proposed Rules
- B. Advisory Committee Membership
- C. Public Input and Department's Response
- D. Presiding Officer's Report on Public Hearings
- E. Relationship to Federal Requirements
- F. Fiscal and Economic Impact Statement
- G. Land Use Evaluation Statement

Available Upon Request

- 1. Legal Notice of Hearing
- 2. Cover Memorandum from Public Notice
- 3. Written Comments Received
- 4. Rule Implementation Plan
- 5. Dry Cleaner Advisory Committee meeting notes of October 23, 2001; November 14, 2001; December 12, 2001; January 9, 2002; January 30, 2002; February 13, 2002; March 13, 2002; April 10, 2002; May 15, 2002; and June 12, 2002.

DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION 124
STANDARDS APPLICABLE TO DRY CLEANING FACILITIES AND DRY STORES

340-124-0010

Purpose of Rules

- (1) These rules establish the standards and procedures to be used to implement ORS 465.200 and 465.500 through 465.548.
- (2) These rules establish:
 - (a) Definitions for terms used in the rules;
 - (b) Requirements for minimizing waste and releases from dry cleaning facilities;
 - (c) Conditions dry cleaning facilities must meet to be eligible for funding;
 - (d) Criteria used to determine the order in which remedial actions receive funding;
 - (e) Criteria used to reimburse dry cleaner owners and dry cleaner operator for preapproved remedial action costs; and
 - (f) The process by which inactive sites will be listed as required in accordance with Section 16 of 2001 Oregon Laws chapter 495.

Stat. Auth.: ORS 465.505(5), ORS 468.020

Stats. Implemented: ORS 465.200 and ORS 465.500 through 465.548

Hist.:

340-124-0015

Applicability

These rules are applicable to:

- (1) Persons operating a dry cleaning facility or dry store.
- (2) Persons delivering perchloroethylene to a dry cleaning facility in Oregon.
- (3) Persons who own real property underlying active and inactive dry cleaning facilities.
- (4) Persons generating hazardous waste at a dry cleaning facility.

Stat. Auth.: ORS 465.505(5), ORS 468.020

Stats. Implemented: ORS 465.200 and ORS 465.500 through 465.548

Hist.:

340-124-0020

Definitions

For the purposes of OAR 340-124-0010 to 340-124-0080, unless otherwise defined therein, the words and phrases used in these rules have the following meanings:

- (1) "Account" means the Dry Cleaner Environmental Response Account created under ORS 465.510.
- (2) "Claim" means a demand in writing for payment from the Account for cleanup at a dry cleaning facility.
- (3) "Claimant" means the person who files a claim against the Account.
- (4) "Closed direct-coupled delivery system" means the method and equipment necessary to deliver perchloroethylene solvent to a dry cleaning facility that minimizes the opportunity for perchloroethylene to be released. Closed direct-coupled delivery includes delivery of solvent to the dry-

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cleaning facility in containers that are pumped into the dry cleaning machine using closed, self-sealing couplings on both the machine and the delivery line for input of solvent into the dry cleaning machine and closed, self-sealing couplings on the vapor displacement outlet on both the machine and the vapor vent line that captures perchloroethylene gas vapors and returns them to the delivery container.

(5) "Commission" means the Environmental Quality Commission.

(6) "Container" means a portable device in which material is stored, transported, treated, disposed of or otherwise handled.

(7) "Department" means the Department of Environmental Quality.

(8) "Director" means the Director of the Department of Environmental Quality.

(9) "Dry Cleaner Environmental Response Account" means the account created under ORS 465.510.

(10) "Dry cleaning facility" means any active or inactive facility located in this state that is or was engaged in dry cleaning apparel and household fabrics for the general public, and dry stores, other than :

(a) A facility located on a United States military base;

(b) A uniform service or linen supply facility;

(c) A prison or other penal institution; or

(d) A facility engaged in dry cleaning operations only as a dry store and selling less than \$50,000 per year of dry cleaning services.

(11) "Dry cleaning operator" means a person who has, or had, a business license to operate a dry cleaning facility or a business operation that a dry cleaning facility is a part of or any person that owns the dry cleaning business, leases the operation of the dry cleaning business from the owner, or makes any other kind of agreement or arrangement where by they operated the dry cleaning business.

(12) "Dry cleaning owner" means a person who owns or owned the real property underlying a dry cleaning facility.

(13) "Dry cleaning solvent" means any nonaqueous solvent for use in the cleaning of garments or other fabrics at a dry cleaning facility, including but not limited to perchloroethylene and petroleum based solvents and the products into which dry cleaning solvents degrade.

(14) "Dry cleaning wastewater" means water from the solvent/water separation process of the dry cleaning machine.

(15) "Dry store" means a facility that does not include machinery using dry cleaning solvents. A dry store includes but is not limited to a pickup store, drop off store, call station, agency for dry cleaning, press shop, route service, pickup and delivery service that is operated by an independent contractor.

(16) "Dry store operator" means the person who controls the operation of a dry store.

(17) "Enrolled inactive dry cleaning facility" means property formerly used, but not currently used, for providing dry cleaning services, and that is on the Department's list of inactive dry cleaning facilities established in accordance with Section 16 of 2001 Oregon Laws chapter 495 and OAR 340-124-0080.

(18) "Environment" includes the waters of the state, any drinking water supply, any land surface and subsurface strata and ambient air.

(19) "Facility" means any building, structure, installation, equipment, pipe or pipeline including any pipe into a sewer or publicly owned treatment works, well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, above ground tank, underground storage tank, motor vehicle, rolling stock, aircraft, or any site or area where a hazardous substance has been deposited, stored, disposed of, or placed, or otherwise come to be located and where a release has occurred or where there is a threat of a release, but does not include any consumer product in consumer use or any vessel.

(20) "Free phase dry cleaning solvent" means solvent that has separated from water in the solvent/water separation process of the dry cleaning machine and consists primarily of pure solvent.

(21) "Hazardous waste" means a hazardous waste as defined in 40 CFR 261.3 (2002).

(22) "Hazardous waste determination" means the process in OAR 340-102-0011 (2002).

(23) "Inactive dry cleaning facility" means property formerly used, but not currently used, for providing dry cleaning services.

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(24) “Non-enrolled inactive dry cleaning facility” means property formerly used, but not currently used, for providing dry cleaning services, that is not on the Department’s list of inactive dry cleaning facilities established in accordance with Section 16 of 2001 Oregon Laws chapter 495 and OAR 340-124-0080.

(25) “Person” means an individual, trust, firm, joint stock company, joint venture, consortium, commercial entity, partnership, association, corporation, commission, state and any agency thereof, political subdivision of the state, interstate body or the federal government including any agency thereof.

(26) “Release” means any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing into the environment including the abandonment or discarding of barrels, containers and other closed receptacles containing any hazardous substance, or threat thereof, but excludes:

(a) Any release that results in exposure to a person solely within a workplace, with respect to a claim that the person may assert against the person's employer under ORS chapter 656;

(b) Emissions from the engine exhaust of a motor vehicle, rolling stock, aircraft, vessel or pipeline pumping station engine;

(c) Any release of source, by-product or special nuclear material from a nuclear incident, as those terms are defined in the Atomic Energy Act of 1954, as amended, if the release is subject to requirements with respect to financial protection established by the Nuclear Regulatory Commission under section 170 of the Atomic Energy Act of 1954, as amended, or, for the purposes of ORS 465.260 or any other removal or remedial action, any release of source by-product or special nuclear material from any processing site designated under section 102(a)(1) or 302(a) of the Uranium Mill Tailings Radiation Control Act of 1978; and

(d) The normal application of fertilizer.

(27) “Remedial action” means those actions consistent with a permanent remedial action taken instead of or in addition to removal actions in the event of a release or threatened release of a hazardous substance into the environment, to prevent or minimize the release of a hazardous substance so that it does not migrate to cause substantial danger to present or future public health, safety, welfare or the environment.

“Remedial action” includes, but is not limited to:

(a) Such actions at the location of the release as storage, confinement, perimeter protection using dikes, trenches or ditches, clay cover, neutralization, cleanup of released hazardous substances and associated contaminated materials, recycling or reuse, diversion, destruction, segregation of reactive wastes, dredging or excavations, repair or replacement of leaking containers, collection of leachate and runoff, on-site treatment or incineration, provision of alternative drinking and household water supplies, and any monitoring reasonably required to assure that the actions protect the public health, safety, welfare and the environment.

(b) Offsite transport and offsite storage, treatment, destruction or secure disposition of hazardous substances and associated, contaminated materials.

(c) Such actions as may be necessary to monitor, assess, evaluate or investigate a release or threat of release.

(28) “Remedial action costs” means reasonable costs which are attributable to or associated with a removal or remedial action at a facility, including but not limited to the costs of administration, investigation, legal or enforcement activities, contracts and health studies.

(29) “Removal” means the cleanup or removal of a released hazardous substance from the environment, such actions as may be necessary taken in the event of the threat of release of a hazardous substance into the environment, such actions as may be necessary to monitor, assess and evaluate the release or threat of release of a hazardous substance, the disposal of removed material, or the taking of such other actions as may be necessary to prevent, minimize or mitigate damage to the public health, safety, welfare or to the environment, that may otherwise result from a release or threat of release. “Removal” also includes but is not limited to security fencing or other measures to limit access, provision of alternative drinking and

household water supplies, temporary evacuation and housing of threatened individuals and action taken under ORS 465.260.

(30) "Wastewater treatment unit" means a device that meets the definition in 40 CFR 260.10 (2002).

Note: Because dry cleaning wastewater can be a federal hazardous waste, all onsite treatment of this waste shall occur in a device that meets the federal definition of wastewater treatment unit.

Stat. Auth.: ORS 465.505(5), ORS 468.020

Stats. Implemented: ORS 465.200 and ORS 465.500 through 465.548

Hist.:

340-124-0040

Waste Minimization Requirements

In addition to the otherwise applicable hazardous waste management requirements of OAR 340-100-0001 and OAR 340-100-0002 that apply to hazardous waste generators and facilities, the following waste minimization requirements implement ORS 465.505. The following apply to dry cleaning facilities and dry stores:

(1) Hazardous waste

(a) Persons generating hazardous waste at a dry cleaning facility in amounts of 220 pounds a month or less or who never store onsite more than 2,200 pounds of hazardous waste shall manage hazardous waste as follows:

(A) All waste meeting the state and federal criteria for hazardous waste identified in OAR 340-102-0011, excluding wastewater, generated at a dry cleaning facility and containing dry cleaning solvents, shall be managed and disposed of regardless of quantity generated as a hazardous waste at a permitted hazardous waste treatment, storage, disposal or recycling facility or at some other waste disposal facility approved by the Department.

(B) Store all hazardous wastes, including dry cleaning wastewater, in closed containers labeled with the words "hazardous waste" and the date waste was first placed in the container, and

(C) Ship hazardous waste offsite within one year of placing waste in the hazardous waste container, and

(D) May submit a written request for an extension of one additional year to store hazardous waste onsite prior to shipping it offsite, if the dry cleaning facility is in a remote location in Oregon, or if the dry cleaning facility does not generate hazardous waste in economically feasible quantities to ship within one year of the date the waste was placed in the container, and

(E) Retain onsite hazardous waste shipping records for three years, and

(F) Post the Oregon Emergency Response System notification information.

(b) Persons accumulating hazardous waste at a dry cleaning facility in amounts greater than 2200 pounds at any time shall consult OAR 340-100-0001 and OAR 340-100-0002 for the applicable hazardous waste regulations that apply.

(c) Persons generating hazardous waste at dry cleaning facilities in amounts greater than 220 pounds but less than 2,200 pounds in a month shall consult OAR 340-100-0001 and OAR 340-100-0002 for the applicable hazardous waste regulations that apply.

(d) Persons generating hazardous waste at dry cleaning facilities in amounts of 2200 pounds or more in a month shall consult OAR 340-100-0001 and OAR 340-100-0002 for the applicable hazardous waste regulations that apply.

(e) Any dry cleaning operator making the claim they do not generate a hazardous waste shall maintain documentation of their hazardous waste determination as required by OAR 340-102-0011 and provide such documentation to the Department on request.

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(f) No person shall dispose of or place dry cleaning solvent, filters, lint from dry cleaning machine cleanout, button trap cleanout, prefilter cleanout, spent diatomaceous earth, sludge, dry cleaning wastewater, still bottoms or other waste material containing hazardous waste dry cleaning solvent in a dumpster or trash receptacle, on the ground or in any location other than in an appropriately labeled hazardous waste storage container for these wastes.

(g) No person shall dispose of or place dry cleaning solvent, filters, lint from dry cleaning machine cleanout, button trap cleanout, prefilter cleanout, spent diatomaceous earth, sludge, dry cleaning wastewater, still bottoms or other waste material containing hazardous waste dry cleaning solvent in a sanitary sewer, drain, storm sewer, septic tank, or any other underground structure which may result in a release to the waters of the state.

(h) Each dry cleaning operator or dry cleaning owner of a dry cleaning facility which ceases operation as a dry cleaning facility for 45 continuous days shall remove dry cleaning solvent, including dry cleaning solvent remaining in the dry cleaning machine and waste materials containing dry cleaning solvent from the dry cleaning facility, within 45 days after the last day of operation. A dry cleaning operator or dry cleaning owner shall remove dry cleaning solvent and solvent-containing residue from a dry cleaning machine in accordance with 40 CFR 261.4 (c) prior to the dry cleaning machine being disposed, recycled or reused.

(i) Any dry cleaning operator or dry cleaning owner may request from the Department a written extension of the 45-day time limit in subsection (h) above, subject to Department approval.

(2) Dry cleaning wastewater shall be managed as follows:

(a) Dry cleaning wastewater shall not be discharged into any sanitary sewer, storm sewer, septic system, boiler, or into the waters of the state.

(b) Dry cleaning facilities generating dry cleaning wastewater containing hazardous waste, in amounts of 220 pounds a month or less or never store onsite more than 2,200 pounds of hazardous waste, shall manage the hazardous dry cleaning wastewater as follows:

(A) Collect the wastewater in a closed container labeled with the words "hazardous waste" and the date waste was first placed in the container, count the wastewater toward the dry cleaning facility's monthly hazardous waste generator category and send the wastewater offsite to a permitted hazardous waste treatment, disposal, or recycling facility, or

(B) Collect the wastewater in a closed container labeled with the words "hazardous waste" and the date waste was first placed in the container, count the wastewater toward the dry cleaning facility's monthly hazardous waste generator category unless the wastewater is managed immediately upon generation in a wastewater treatment unit and is treated in a wastewater treatment unit, or

(C) Directly pipe the wastewater to a wastewater treatment unit and treat the wastewater onsite.

(c) Dry cleaning operators treating wastewater containing hazardous waste at a dry cleaning facility in a wastewater treatment unit shall meet the following conditions:

(A) The wastewater treatment unit meets the definition in 40 CFR 260.10, and shall have the following components:

(i) A second solvent water separator settling chamber to recover free-phase dry cleaning solvent from the wastewater that exits the dry cleaning machine's water separator, and

(ii) An initial filter with filter media capable of removing dry cleaning solvent dissolved in the dry cleaning wastewater that exits the second solvent water separator, and

(iii) A monitor-alarm that automatically shuts down the wastewater treatment unit when the initial filter becomes saturated with solvent, and

(iv) A second filter with filter media capable of removing dry cleaning solvent dissolved in the dry cleaning wastewater after it passes through the initial filter and past the monitor-alarm.

(B) All treated wastewater is evaporated, misted, atomized or released such that no visible liquid deposition or accumulation is present, and the discharge does not create a nuisance according to OAR 340-208-0300, and

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(C) All spent filters from the wastewater treatment unit are managed as hazardous waste, and
(D) An operational and maintenance manual is kept onsite at all times, and
(E) If the monitor-alarm shuts down the wastewater treatment unit, the dry cleaning operator shall, before continuing to use the wastewater treatment unit:

(i) Replace the initial and second filter with new filters, or

(ii) Replace the initial filter with the used second filter and install a new second filter.

(d) A dry cleaning operator may treat dry cleaning wastewater in equipment other than described in OAR 340-124-0040 (2)(c) provided the following conditions are met:

(A) The equipment meets the definition of wastewater treatment unit in 40 CFR 260.10, and

(B) The wastewater treatment unit is designed to remove free phase dry cleaning solvent, and

(C) The treated wastewater discharged from the wastewater treatment unit does not meet or exceed the hazardous waste levels in 40 CFR 261.20 to 261.24,

(D) The unit ceases operation if the levels under (C) are exceeded, and

(Note: The toxic characteristic hazardous waste regulatory level for perchloroethylene is 0.7 parts per million and for benzene is 0.5 parts per million analyzed by the Toxic Characteristic Leaching Procedure (TCLP). If other hazardous waste constituents are present they must similarly be compared to the hazardous waste levels in 40 CFR 261.20 and 261.24).

(E) Documentation that under normal use, concentrations do not exceed the hazardous waste level in 40 CFR 261.20 to 261.24 and,

(F) All spent filters from the wastewater treatment unit are managed as hazardous waste, and

(G) An operational manual and maintenance manual is kept onsite at all times, and

(H) All treated wastewater is evaporated, misted, atomized or released such that no visible liquid deposition or accumulation is present and the discharge does not create a nuisance according to OAR 340-208-0300.

(e) Dry cleaning wastewater containing hazardous waste may be treated in a wastewater treatment unit other than that described in OAR 340-124-0040 (2)(c) provided the treatment process utilizes a technology that is capable of providing equivalent or better levels of solvent removal than the limits defined in OAR 340-124-0040 (2)(d) of this rule. Any person proposing to use an alternate wastewater treatment unit shall demonstrate that the alternative unit provides treatment at equivalent or better levels of solvent removal under operational conditions than the limits defined in OAR 340-124-0040 (2)(d) of this rule. All requests for an alternative wastewater treatment unit shall be submitted to the Department in writing.

(3) Containment systems

All dry cleaning operators shall comply with the following requirements to be in compliance with ORS 465.505:

(a) A secondary containment system under and around the dry cleaning machine shall be constructed of rigid metal material impermeable to the solvent in use. Dry cleaning machine containment systems shall be installed in such a way as not to compromise the integrity of the containment. A secondary containment system under and around the dry cleaning machine shall be capable of containing at least 110% of the capacity of the largest tank in the dry cleaning machine for 72 hours. The containment system for a dry cleaning machine shall extend to the outside perimeter of the dry cleaning machine to provide protection from leaks and drips from seals.

(b) All sealant and caulk used on each secondary containment system shall be impermeable and impervious to the dry cleaning solvent and dry cleaning waste in use, inspected for leaks, and maintained in a non-leaking condition.

(c) A secondary containment system under and around dry cleaning solvent stored at a dry cleaning facility shall be constructed of rigid material impermeable to the solvent in use and capable of containing 110 % of the capacity of solvent being stored. Outdoor storage areas shall be secured and covered to protect from accumulation of rainfall and unauthorized entry.

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(d) A secondary containment system under and around the wastewater treatment unit shall be constructed of rigid material impermeable to the solvent in use and capable of containing 110% of the capacity of each wastewater treatment unit.

(e) A secondary containment system under and around a hazardous waste storage container/s shall be constructed of rigid material impermeable to the solvent in use and capable of containing 110% of the volume of the liquid contained in each hazardous waste storage container. Outdoor storage areas shall be secured and covered to protect from accumulation of rainfall and unauthorized entry.

(f) All other items of equipment in which dry cleaning solvent is used, treated or stored shall have secondary containment constructed of rigid material impermeable to the solvent in use and capable of containing 110% of the volume of the liquid contained in each piece of equipment.

(g) Any dry cleaning operator may petition the Department to use another material for secondary containment for the dry cleaning machine, provided they can demonstrate to the Department that the material is impermeable to the dry cleaning solvent in use.

(4) Annual reporting for dry cleaning facilities and dry stores:

(a) All dry cleaning operators and/or owners of a dry cleaning business shall report annually to the Department on forms supplied by the Department regarding compliance with the waste minimization requirements set forth in this rule.

(b) All dry store operators shall report to the Department annually on forms supplied by the Department.

(5) Spill reporting

(a) All dry cleaning operators shall prominently post the Oregon Emergency Response System telephone number 1-800-452-0311, so the number is immediately available to employees of the dry cleaning facility in case on an emergency.

(b) All spill reporting shall be made to the Oregon Emergency Response System, OERS.

(c) All dry cleaning operators shall report the release of more than 1 pound of dry cleaning solvent in a 24-hour period released outside of a containment system

(d) All dry cleaning operators shall take emergency action as required by OAR 340 Division 142 "Oil and Hazardous Materials Emergency Response Requirements" for releases of more than 1 pound of dry cleaning solvent in a 24-hour period released outside of a containment system.

(e) Dry cleaning operators are not required to report releases of dry cleaning solvent, provided the release is contained within an existing containment system, is cleaned up immediately, and repairs are made immediately to the cause of the release.

(6) Closed direct-coupled delivery of perchloroethylene

(a) All perchloroethylene dry cleaning machines shall be fitted with closed, self-sealing couplings for input of solvent into the dry cleaning machine and closed, self-sealing couplings on the vapor displacement outlet that captures perchloroethylene gas vapors and returns the vapor to the delivery container.

(b) All suppliers of perchloroethylene to dry cleaning facilities shall deliver solvent to the dry cleaning facility in containers that are fitted with closed, self-sealing couplings on the delivery line for input of solvent into the dry cleaning machine and closed self-sealing couplings on the vapor displacement vent line that captures perchloroethylene gas vapors and returns the vapor to the delivery container, or The supplier of perchloroethylene solvent may use an alternative delivery system to that required in (6)(b), subject to the condition that the system provides the same or better protection from releases and is approved by the Department. All requests for alternative systems shall be submitted in writing, including system schematic to the Department for approval.

Stat. Auth.: ORS 465.505(1)(c) and 465.505(5), ORS 468.020

Stats. Implemented: ORS 465.505:

Hist.:

340-124-0050

Notification of Change at A Dry Cleaning Business or Dry Store.

(1) The dry cleaning operator and/or dry store operator shall notify the Department on forms provided by the Department within 60 days of the applicable activities listed below:

- (a) Closure of a dry cleaning business
- (b) Closure of a dry store
- (c) Change of dry cleaning owner
- (d) Change of dry cleaning operator
- (e) Change of dry store operator
- (f) Sale of a dry cleaning business
- (g) Opening a new dry cleaning business
- (h) Opening a new dry store

Stat. Auth.: ORS 465.505(5), ORS 468.020

Stats. Implemented: ORS 465.505 :

Hist.:

340-124-0055

Requirements for Dry Stores.

Any dry cleaning machinery at a dry store location shall have dry cleaning solvent and solvent-containing residue removed from the dry cleaning machinery in accordance with 40 CFR 261.4 (c) and the dry cleaning machine shall not be connected to any utilities.

Stat. Auth.: ORS 465.505(5), ORS 468.020

Stats. Implemented: ORS 465.505

Hist.:

340-124-0060

Funding from Dry Cleaner Environmental Response Account at Dry Cleaning Facilities

(1) For a contaminated dry cleaning facility to receive funding for remedial actions, the following conditions must be met:

(a) The person performing the remedial action shall submit a claim on a form to be provided by the Department.

(A) If the claimant is not the real property owner, the claim shall provide proof that the real property owner has been notified of the claim.

(B) If the property is leased, and the claimant is not the lessee, the claimant shall provide proof that the lessee has been notified of the claim.

(C) The claim shall contain the information requested by the Department, as well as all other known information concerning environmental contamination at the contaminated dry cleaning site.

(b) The Department shall review the completed claim and make a funding determination considering the criteria set forth in OAR 340-124-0065 and 0070.

(c) The Department shall send a written notice of the funding determination to the claimant as soon as a determination is made. If the site is determined ineligible for funding, the notice of the determination shall state the reason or reasons for ineligibility.

(d) The claimant shall be responsible for the deductible required under ORS 465.510(a) and (b).

Adequate employee payroll records that document and support the number of employees employed in the dry cleaning business at the time of the release shall be provided to the Department. If the time of release is not known, the deductible will be calculated using the current number of employees. If adequate employee records are not available, the deductible shall be \$10,000.

(2) If an active dry cleaner becomes out of compliance with the requirements in ORS 465.505 (waste minimization), excluding subsection (3) (reporting), during the period of time the Department is assessing or remediating a site, the dry cleaner will be responsible for costs incurred by the Department at the site during the period of time the claimant was out of compliance. Costs incurred while the claimant was in compliance shall be paid for from the Account.

(3) Inactive dry cleaning facilities must be enrolled on a list as established in OAR 340-124-0080 to be eligible for funding from the Account.

(4) If a claimant withdraws as a claimant, the Department may stop payment from the Account for remediation costs incurred at the dry cleaning facility.

Stat. Auth.: ORS 465.505(5), ORS 468.020

Stats. Implemented: ORS 465.510

Hist.:

OAR 340-124-0065 **Priority Ranking System**

The Department shall determine the order in which to use funds from the Account using standardized site assessment prioritization criteria. The criteria shall include but not be limited to:

(1) Risk to the environment based on the following:

(a) Solvent and waste containment,

(b) Depth to which soil is contaminated with dry cleaning solvent,

(c) Depth to groundwater,

(d) Distance to known groundwater wells,

(e) Soil type,

(f) Distance to surface water,

(g) Quantity of soil or groundwater contaminated with dry cleaning solvent,

(h) Current and reasonably likely future use of groundwater and land affected by contamination,

(i) Toxicity of dry cleaning solvent,

(j) Water solubility of dry cleaning solvent,

(k) Land use and sensitive populations near hazardous substance,

(l) Vulnerable areas near hazardous substance, and

(m) Likelihood for direct exposure to hazardous substance.

(2) Each facilities risk relative to the risk posed by other facilities.

(3) The need for removal or remedial action at the dry cleaning facility relative to Account availability.

(4) The nature of the activities for which expenditures are necessary, in the following order of preference:

(a) Direct cost of cleanup, provided that adequate technical investigation has been completed;

(b) Direct cost of technical investigation and remedy evaluation;

(c) Administrative and indirect costs; and

(d) Enforcement, cost recovery and legal actions.

- (5) The Department may also consider the provisions in ORS 465.503(3) if:
- (a) The release was caused by gross negligence of the dry cleaning business owner, dry cleaning property owner or dry cleaning operator.
 - (b) The release resulted from an action or omission that was a violation by the dry cleaning business owner, dry cleaning property owner or dry cleaning operator of federal or state laws in effect at the time of the release, including but not limited to waste minimization requirements imposed under OAR 340-124.
 - (c) The dry cleaning business owner, dry cleaning property owner or dry cleaning operator willfully concealed a release of dry cleaning solvent contrary to laws and regulations in effect at the time of the release or did not comply with release reporting requirements applicable at the time of the release.
 - (d) The dry cleaning business owner, dry cleaning property owner or dry cleaning operator denies access or unreasonably hinders or delays removal or remedial action necessary at the facility; or
 - (e) The dry cleaning operator of the facility where the release occurred has failed to pay fees under ORS 465.517 to 465.523 in relation to dry cleaning activity at any dry cleaning facility.
- (6) In instances when redevelopment or other activity at a contaminated dry cleaner site creates an opportunity to reduce the cost of remedial action, the Department may include the cost savings into the prioritization.
- (7) For low priority sites the site assessment prioritization scores will be increased each year the site is on the program waiting list.

Stat. Auth.: ORS 465.505(5), ORS 468.020

Stats. Implemented: ORS 465.510(3)

Hist.:

OAR 340-124-0070

Remedial Actions Prior to Funding from Account

- (1) A person performing remedial action at a dry cleaning facility may apply to the Department to be reimbursed by the Account for remedial action costs incurred. The Department may use funds from the Account to reimburse the claimant for remedial action costs at the facility under the following circumstances:
- (a) Reimbursement from the Account shall be made in accordance with a written agreement or order between the claimant and the Department expressly authorizing reimbursement from the Account. The agreement or order must be entered into before the claimant conducts any remedial action for which reimbursement will be sought.
 - (b) Actions of the claimant expedite remedial action at the site.
 - (c) Remedial actions are conducted under Departmental oversight pursuant to the agreement or order.
 - (d) Costs are preapproved and determined by the Department to be reasonable and necessary, and
 - (e) Funds from the Account will not be used for costs incurred during remedial action due to negligence or incompetence of claimant or claimant's agent.
 - (f) A claim filed against the Account may be paid only from monies in the Account and only in accordance with the provisions of these rules. Any obligation to pay or reimburse claims against the Account shall be expressly contingent upon availability of monies in the Account. Neither the State nor any of its agencies shall have any obligation to pay or reimburse any costs for which monies are not available in the account.
- (2) If a claimant undertakes actions that are preapproved and reimbursable a DEQ order or agreement before Account money is available for reimbursement, funds shall be obligated for and reimbursed to the

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claimant for eligible expenses, as funds become available pursuant to the priority ranking system in section OAR 340-124-065.

(3) Claimants shall meet all requirements for fund eligibility applicable at the time the activities are performed in order to receive reimbursement.

(4) Only work plans and cost proposals approved in writing by Department staff prior to remedial action being conducted are eligible for reimbursement.

(5) The Account shall provide reimbursement for the reasonable cost of Department-preapproved, investigation and remedial action. All costs consistent with cost proposals approved by the Department shall be considered reasonable costs.

(6) Claims for reimbursement of costs shall be submitted in a format established by the Department and shall, at a minimum, include an itemization of all charges according to labor hours and rates, analytical charges, equipment charges, and other categories which may be identified by the Department, or which the claimant may wish to provide.

(7) A claim for payment shall be received within one year from the date of performance of the work, which is the subject of the claim.

(8) Payments from the Account will be made directly to the claimant. The claimant is responsible for final payments to the contractor(s) performing the work.

Stat. Auth.: ORS 465.505(5), ORS 468.020

Stats. Implemented: ORS 465.510

Hist.:

340-124-0080

Enrolled Inactive Site List

(1) The opportunity to be listed is limited to inactive dry cleaning facilities eligible to receive funding from the Account as of December 31, 2001.

(2) To be eligible to receive funding from the Dry Cleaner Environmental Response Account, the current or former owner or former operator of an inactive dry cleaning facility or its representative must submit a completed Listing Application Form as provided by the Department.

(a) For facilities that became inactive before December 31, 2001, an application for listing must be submitted on or before January 1, 2003.

(b) For facilities that become inactive after January 1, 2002, an application for listing must be submitted within 180 days of becoming an inactive dry cleaning facility.

(3) The Listing Application Form shall include the following information:

(a) Dry cleaning facility name, address, contact person, telephone number, and date facility began dry cleaning operations.

(b) Dry cleaner operator information, including name, mailing address, contact person, phone number.

(c) Information pertaining to the owner of the underlying real property, including owner name, mailing address, contact person, phone number.

(d) Evidence that the dry cleaner operator operated the inactive facility listed on the application (e.g. local business license, receipts from dry cleaning supplies, tax returns, contracts, insurance policies).

(e) Any other information the Department may request.

(4) An application is not complete and the Department shall reject any application in any of the following circumstances:

(a) Applicant fails to provide information required by subsection 3 of this section.

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(b) Applicant falsified any information in its application that was material to the determination of the eligibility of the facility, priority ranking; nature, scope and extent of contamination to be assessed or remediated; or the appropriate means to contain and remediate the contaminants.

(c) The \$250 application fee is not paid.

(5) Fees established in Section 16 of 2002 Oregon Laws chapter 495 shall be paid to maintain funding eligibility on an enrolled inactive facility until DEQ has issued a determination that no further action is necessary to remediate the site. The applicant may extend funding eligibility on an enrolled inactive dry cleaning facility after the no further action determination by continuing to pay the applicable annual fee.

Stat. Auth.: ORS 465.505(5), ORS 468.020

Stats. Implemented: Section 16, chapter 495, Oregon Laws 2001

Hist.:

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DIVISION 100
HAZARDOUS WASTE MANAGEMENT
Hazardous Waste Management System: General

340-100-0001

Purpose and Scope

(1) The Department finds that increasing quantities of hazardous waste are being generated in Oregon which, without adequate safeguards, can create conditions that threaten public health and the environment. It is therefore in the public interest to establish a comprehensive program to provide for the safe management of such waste.

(2) The purpose of the management program contained in OAR Chapter 340, Divisions 100 to 110, 120, 124 and 142 is to control hazardous waste from the time of generation through transportation, storage, treatment and disposal. Toxics use reduction, hazardous waste reduction, hazardous waste minimization, beneficial use, recycling and treatment are given preference to land disposal. To this end, the Department intends to minimize the number of disposal sites and to tightly control their operation.

(3) OAR Chapter 340, Divisions 100 to 106, ~~108~~, 109, 111, 113, 120, 124 and 142 incorporated, by reference, hazardous waste management regulations of the federal program, included in **40 CFR Parts 260 to 266, 268, 270, 273** and Subpart A and Subpart B of Part 124, into Oregon Administrative Rules. Therefore, persons must consult these parts of 40 CFR in addition to OAR Chapter 340, Divisions 100 to 106, ~~108~~, 109, 111, 113, 120, 124 and 142 to determine all applicable hazardous waste management requirements.

(4) A secondary purpose is to obtain EPA Final Authorization to manage hazardous waste in Oregon in lieu of the federal program.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the agency.]

Stat. Auth.: ORS 466.020, ORS 466.075, ORS 466.105, ORS 466.195 & ORS 468.020

Stats. Implemented: ORS 466.010, ORS 466.035 & ORS 465.006

Hist.: DEQ 8-1985, f. & ef. 7-25-85; DEQ 4-1991, f. & cert. ef. 3-15-91 (and corrected 6-20-91); DEQ 11-1998, f. & cert. ef. 6-26-98

340-100-0002

Adoption of United States Environmental Protection Agency Hazardous Waste and Used Oil Management Regulations

(1) Except as otherwise modified or specified by OAR Chapter 340, Divisions 100 to 106, ~~108~~, 109, 111, 113, 120, 124 and 142 the rules and regulations governing the management of hazardous waste, including its generation, transportation, treatment, storage, recycling and disposal, prescribed by the United States Environmental Protection Agency in **Title 40 Code of Federal Regulations, Parts 260 to 266, 268, 270, 273 and Subpart A and Subpart B of Part 124** promulgated through April 12, 2000, except the amendments to **40 CFR Parts 264, 265 and 270** as promulgated at **63 Federal Register 56710-56735**, October 22, 1998, are adopted by reference and prescribed by the Commission to be observed by all persons subject to ORS 466.005 to 466.080 and 466.090 to 466.215.

(2) Except as otherwise modified or specified by OAR Chapter 340, Division 111, the rules and regulations governing the standards for the management of used oil, prescribed by the United States Environmental Protection Agency in **Title 40 Code of Federal Regulations, Part 279** promulgated through April 12, 2000, are adopted by reference into Oregon Administrative Rules and prescribed by the Commission to be observed by all persons subject to ORS 466.005 to 466.080 and 466.090 to 466.215.

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(Comment: The Department uses the federal preamble accompanying the federal regulations and federal guidance as a basis for regulatory decision-making.)

[Publications: Copies of the publications referenced in this rule are available from the agency.]

Stat. Auth.: ORS 465.009, ORS 466.020 & ORS 465.505

Stats. Implemented: ORS 465.003, ORS 465.009, ORS 466.005, ORS 466.075, ORS 466.105 & ORS 465.505

Hist.: DEQ 8-1985, f. & ef. 7-25-85; DEQ 10-1987, f. & ef. 6-11-87; DEQ 23-1987, f. & ef. 12-16-87; DEQ 19-1988, f. & cert. ef. 7-13-88; DEQ 12-1989, f. & cert. ef. 6-12-89; DEQ 4-1991, f. & cert. ef. 3-15-91 (and corrected 6-20-91); DEQ 24-1992, f. 10-23-92, cert. ef. 11-1-92; DEQ 11-1993, f. & cert. ef. 7-29-93; DEQ 6-1994, f. & cert. ef. 3-22-94; DEQ 31-1994(Temp), f. 12-6-94, cert. ef. 12-19-94; DEQ 11-1995, f. & cert. ef. 5-19-95; DEQ 12-1996, f. & cert. ef. 7-31-96; DEQ 14-1997, f. & cert. ef. 7-23-97; DEQ 11-1998, f. & cert. ef. 6-26-98; DEQ 26-1998(Temp), f. & cert. ef. 11-3-98 thru 3-19-99; DEQ 4-1999, f. & cert. ef. 3-19-99; DEQ 10-2000, f. & cert. ef. 7-21-00

340-100-0003

Public Disclosure and Confidentiality

- (1) The provisions of this rule replace the provisions of **40 CFR 260.2**.
 - (2) All records, reports, and information submitted pursuant to the hazardous waste statutes, rules, and regulations are open for public inspection and copying except as provided in sections (3) to (7) of this rule. Provided however, that nothing in this rule is intended to alter any exemption from public disclosure or public inspection provided by any provision of ORS Chapter 192 or other Oregon law.
 - (3)(a) Records, reports, and information submitted pursuant to the hazardous waste statutes, rules, and regulations may be claimed as trade secret by the submitted in accordance with ORS 192.410 through 192.505 and 466.090.
 - (b) The Department shall designate a Document Control Officer for the purpose of receiving, managing, and securing confidential information. The following information shall be secured by the Document Control officer:
 - (A) Claimed trade secret information until the claim is withdrawn by the submitter, determined not to be confidential under section (6) of this rule, or invalidated;
 - (B) information determined to be trade secret; and
 - (C) any other information determined by court order or other process to be confidential.
 - (c) All Uniform Hazardous Waste Manifest information submitted on any required report pursuant to the hazardous waste statutes, rules, and regulations is publicly available and is not subject to trade secret confidentiality claims.
 - (d) Claims of confidentiality for the name and address of any permit applicant or permittee will be denied.
- (4) The following procedures shall be followed when a claim of trade secret is made:
- (a) Each individual page of any submission that contains the claimed trade secret information must be clearly marked as "trade secret," "confidential," "confidential business information," or equivalent. If no claim by appropriate marking is made at the time of submission, the submitter may not afterwards make a claim of trade secret.
 - (b) A late submission of the trade secret substantiation will invalidate the trade secret claim. Written substantiation in accordance with paragraph (4)(d) of this rule:
 - (A) Must accompany any information submitted pursuant to OAR 340-102-0012, 340-102-0041, 340-104-0075, 340-105-0010, 340-105-0013, 340-105-0014, 340-105-0020, 340-105-0021, **40 CFR 262.12, 264.11, 265.11 or 270.42**, or

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(B) For all other information submitted to the Department, written substantiation must be provided pursuant to subsection 5 of this rule.

(c) Trade secret information must meet the following criteria:

(A) Not the subject of a patent;

(B) Only known to a limited number of individuals within an organization;

(C) Used in a business which the organization conducts;

(D) Of potential or actual commercial value; and

(E) Capable of providing the user with a business advantage over competitors not having the information.

(d) Written substantiation of trade secret claims shall address the following:

(A) Identify which portions of information are claimed trade secret.

(B) Identify how long confidential treatment is desired for this information.

(C) Identify any pertinent patent information.

(D) Describe to what extent the information has been disclosed to others, who knows about the information, and what measures have been taken to guard against undesired disclosure of the information to others.

(E) Describe the nature of the use of the information in business.

(F) Describe why the information is considered to be commercially valuable.

(G) Describe how the information provides a business advantage over competitors.

(H) If any of the information has been provided to other government agencies, identify which one(s).

(I) Include any other information that supports a claim of trade secret.

(e) A public version of the document containing the claimed trade secret information must be submitted at the time the trade secret substantiation is required as provided in subsection (4)(b)(A) and subsection (5)(a) of this rule.

(5)(a) Written trade secret substantiation as required under subsection (4)(b)(B) and a public version of the information as required by subsection (4)(e) shall be provided within 15 working days of receipt of any Department request for trade secret substantiation or the public version of the information. The Department may extend the time, either at the Department's initiative or the claimant's request, up to an additional 30 consecutive days in order to provide the substantiation and public version, if the complexity or volume of the claimed trade secret information is such that additional time is required for the claimant to complete the response. The Department shall request the written trade secret substantiation or the public information version if:

(A) A public records request is received which would reasonably include the information, if the information were not declared as trade secret, or

(B) It is likely that the Department eventually will be requested to disclose the information at some future time and thus have to determine whether the information is entitled to trade secret confidentiality. This includes information that relates to any permit, corrective action, or potential violation information.

(6) When evaluating a trade secret claim the Department shall review all information in its possession relating to the trade secret claim to determine whether the trade secret claim meets the requirements for trade secret as specified in paragraphs (4)(c) and (4)(d) of this rule. The Department shall provide written notification of any final trade secret decision and the reason for it to the person submitting the trade secret claim within 10 working days of the decision date.

(a) If the Department or the Attorney General determines that the information meets the requirements for trade secret, the information shall be maintained as confidential.

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(b) If the Department determines that the information does not meet the requirements for trade secret, the Department shall request a review by the Attorney General. If the Attorney General determines that the information does not meet the requirements for trade secret, the Department may make the information available to the public no sooner than 5 working days after the date of the written notification to the person submitting the trade secret claim.

(c) A person claiming information as trade secret may request the Department to make a trade secret determination. The person must submit the written substantiation in accordance with paragraph (4)(d) of this rule and the public version in accordance with paragraph (4)(e) of this rule. The Department shall make the determination within 30 days after receiving the request, written substantiation, and the public version.

(7) Records, reports, and information submitted pursuant to these rules shall be made available to the Environmental Protection Agency (EPA) upon request. If the records, reports, or information has been submitted under a claim of confidentiality, the state shall make that claim of confidentiality to EPA for the requested records, reports or information. The federal agency shall treat the records, reports or information that is subject to the confidentiality claim as confidential in accordance with applicable federal law.

Note: It is suggested that claims of trade secret be restricted to that information considered absolutely necessary and that such information be clearly separated from the remainder of the submission.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the agency.]

Stat. Auth.: ORS 466.020, ORS 468.020 & ORS 646

Stats. Implemented: ORS 192.410 - ORS 192.505, ORS 466.015, ORS 466.075 & ORS 466.090

Hist.: DEQ 8-1985, f. & ef. 7-25-85; DEQ 4-1991, f. & cert. ef. 3-15-91 (and corrected 6-20-91); DEQ 6-1994, f. & cert. ef. 3-22-94; DEQ 12-1996, f. & cert. ef. 7-31-96

340-100-0004

Table of Contents, Divisions 100 to 120

The following Divisions including the incorporation of regulations in **40 CFR, Parts 260 to 266, 268, 270, and 124**, comprise the Oregon hazardous waste management program:

DIVISION -- SUBJECT

- 100 -- Hazardous Waste Management System: General
- 101 -- Identification and Listing of Hazardous Waste
- 102 -- Standards Applicable to Generators of Hazardous Waste
- 103 -- Standards Applicable to Transporters of Hazardous Waste
- 104 -- Standards for Owners and Operators of Hazardous Waste Treatment, Storage and Disposal Facilities
- 105 -- Management Facility Permits
- 106 -- Permitting Procedures
- 108 -- Spills and Other Incidents
- 109 -- Management of Pesticide Wastes
- 110 -- Polychlorinated Biphenyls (PCBs)
- 120 -- Additional Siting and Permitting Requirements for Hazardous Waste and PCB Treatment and Disposal Facilities
- 124 -- Standards Applicable to Dry Cleaning Facilities and Dry Stores
- 142 -- Oil and Hazardous Materials Emergency Response Requirements

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[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the agency.]

Stat. Auth.: ORS 183, ORS 459, ORS 466.020, ORS 466.075, ORS 466.105, ORS 466.195 & ORS 468
Stats. Implemented: ORS 466.020, ORS 466.075, ORS 466.105 & ORS 466.195

Hist.: DEQ 8-1985, f. & ef. 7-25-85; DEQ 4-1991, f. & cert. ef. 3-15-91 (and corrected 6-20-91)

340-100-0005

Public Availability of Information

(1) Upon request, the Department shall make available Department records regarding facilities and sites for the treatment, storage, and disposal of hazardous waste, in accordance with ORS 192.410 through 192.500.

(2) Within 20 days of receipt of a request for records, under section (1) of this rule, the Department shall either grant or deny the request. If the Department fails to act within 20 days, the request shall be deemed to be denied.

(3) In the event that a request for records is denied, the Department shall notify the requestor, in writing, of the basis for the denial and of the requestor's right to appeal the denial to the Attorney General of the State of Oregon, as provided in ORS 192.450.

(4) In the event that a claim of confidentiality has been made, under OAR 340-100-0003, and such claim cannot be resolved within 20 days of receipt of a request for records, the Department shall notify the requestor within that 20-day period that the request is denied until the claim of confidentiality can be resolved.

(5) The Department shall consider the reduction or waiver of any fees required to provide copies of records, if the records are requested by the news media, a non-profit public interest group, or any other person or entity, and the requestor provides a written statement in support of reduction or waiver. The Department may reduce or waive fees, if the Department determines that reduction or waiver serves the public interest, taking into consideration the magnitude of the request, the Department's resources, whether the information would not be obtainable by the requestor without the reduction or waiver and any other factors relevant to the public interest.

Stat. Auth.: ORS 183, ORS 466 & ORS 468

Stats. Implemented: ORS 192.410 - ORS 192.505 & ORS 466.090

Hist.: DEQ 10-1987, f. & ef. 6-11-87

340-100-0010

Definitions

(1) The definitions of terms contained in this rule modify, or are in addition to, the definitions contained in **40 CFR 260.10**.

(2) When used in Divisions 100 to 110 and 120 of this chapter, the following terms have the meanings given below:

(a) "Administrator" means:

(A) The "Department", except as specified in paragraph (2)(a)(B) or (C) of this rule;

(B) The "Commission," when used in **40 CFR 261.10** and **261.11**; or

(C) The Administrator of the U.S. Environmental Protection Agency, when used in **40 CFR 262.50**.

(b) "Aquatic LC50 (median aquatic lethal concentration)" means that concentration of a substance which is expected in a specific time to kill 50 percent of an indigenous aquatic test population (i.e., fish, insects or other aquatic organisms). Aquatic LC50 is expressed in milligrams of the substance per liter of water;

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- (c) "Beneficiation of Ores and Minerals" means the upgrading of ores and minerals by purely physical processes (e.g., crushing, screening, settling, flotation, dewatering and drying) with the addition of other chemical products only to the extent that they are a non-hazardous aid to the physical process (such as flocculants and deflocculants added to a froth-flotation process);
- (d) "Collection". See "Storage";
- (e) "Commission" means the Environmental Quality Commission;
- (f) "Demilitarization" means all processes and activities at the Umatilla Chemical Depot (OR 6213820917) and Umatilla Chemical Agent Disposal Facility (ORQ 000009431) from February 12, 1997, through Department approval of the closure of all permitted treatment, storage and disposal units and facility-wide corrective action;
- (g) "Demilitarization Residue" means any solid waste generated by demilitarization processes and activities as defined in 340-100-0010(2)(f), except for (A) waste streams generated from processes or activities prior to the introduction of nerve or blister agent into the treatment unit; and (B) waste streams generated from maintenance or operation of non-agent contaminated process utility systems;
- (h) "Department" means the Department of Environmental Quality except it means the Commission when the context relates to a matter solely within the authority of the Commission such as: The adoption of rules and issuance of orders thereon pursuant to ORS 466.020, 466.075, and 466.510; the making of findings to support declassification of hazardous wastes pursuant to ORS 466.015(3); the issuance of exemptions pursuant to ORS 466.095(2); the issuance of disposal site permits pursuant to ORS 466.140(2); and the holding of hearings pursuant to ORS 466.130, 466.140(2), 466.170, 466.185, and 466.190;
- (i) "Director" means:
- (A) The "Department", except as specified in paragraph (2)(g)(B) of this rule; or
- (B) The "permitting body", as defined in section (2) of this rule, when used in **40 CFR 124.5, 124.6, 124.8, 124.10, 124.12, 124.14, 124.15 and 124.17.**
- (j) "Disposal" means the discharge, deposit, injection, dumping, spilling, leaking, or placing of any hazardous waste or hazardous substance into or on any land or water so that the hazardous waste or hazardous substance or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters of the state as defined in ORS 468.700;
- (k) "Dry Cleaning Facility" means any facility as defined by 40 CFR 260.10 and adopted pursuant to OAR 340-100-0002, located in this state that is or was engaged in dry cleaning apparel and household fabrics for the general public, and dry stores, other than:
- (a) A facility located on a United States military base;
- (b) A uniform service or linen supply facility;
- (c) A prison or other penal institution; or
- (d) A facility engaged in dry cleaning operations only as a dry store and selling less than \$50,000 per year of dry cleaning services.
- (l) "Dry Cleaning Operator" means a person who has, or had, a business license to operate a dry cleaning facility or a business operation that a dry cleaning facility is a part of or any person that owns the dry cleaning business, leases the operation of the dry cleaning business from the owner, or makes any other kind of agreement or arrangement where by they operated the dry cleaning business.
- (m) "Dry Cleaning Wastewater" means water from the solvent/water separation process of the dry cleaning machine.

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- (n) "EPA" or "Environmental Protection Agency" means the means the Department of Environmental Quality,
- (o) "EPA Form 8700-12" means EPA Form 8700-12 as modified by the Department;
- (p) "Existing Hazardous Waste Management (HWM) Facility" or "Existing Facility" means a facility which was in operation or for which construction commenced on or before November 19, 1980, or is in existence on the effective date of statutory or regulatory changes under Oregon law that render the facility subject to the requirement to have a permit. A facility has commenced construction if:
- (A) The owner or operator has obtained the federal, state, and local approvals or permits necessary to begin physical construction; and either
- (B)(i) A continuous on-site, physical construction program has begun; or
- (ii) The owner or operator has entered into contractual obligations -- which cannot be canceled or modified without substantial loss -- for physical construction of the facility to be completed within a reasonable time.
- (q) "Extraction of Ores and Minerals" means the process of mining and removing ores and minerals from the earth;
- (r) "Generator" means the person who, by virtue of owner-ship, management or control, is responsible for causing or allowing to be caused the creation of a hazardous waste;
- (s) "Hazardous Substance" means any substance intended for use which may also be identified as hazardous pursuant to Division 101;
- (t) "Hazardous Waste" means a hazardous waste as defined in 40 CFR 261.3;
- (u) "Identification Number" means the number assigned by DEQ to each generator, transporter, and treatment, storage and disposal facility;
- (v) "License." See "Permit";
- (w) "Management Facility" means a hazardous waste treatment, storage or disposal facility;
- (x) "Off-site" means any site which is not on-site;
- (y) "Oxidizer" means any substance such as a chlorate, permanganate, peroxide, or nitrate, that yields oxygen readily or otherwise acts to stimulate the combustion of organic matter (see 40 CFR 173. 151);
- (z) "Permitting Body" means:
- (A) The Department of Environmental Quality, when the activity or action pertains to hazardous waste storage or treatment facility permits; or
- (B) The Environmental Quality Commission, when the activity or action pertains to hazardous waste disposal facility permits.
- (aa) "Permit" or "License" means the control document that contains the requirements of ORS Chapter 466 and OAR Chapter 340, Divisions 104 to 106 and 120. Permit includes permit-by-rule and emergency permit. Permit does not include any permit which has not yet been the subject of final Department action, such as a draft permit or a proposed permit;
- (bb) "RCRA" or "Resource Conservation and Recovery Act", when used to refer to a federal law, means Oregon law;
- (cc) "RCRA Permit" means Oregon hazardous waste management facility permit;
- (dd) "Regional Administrator" means:
- (A) The "Department", except as specified in paragraph (2)(y)(B) or (C) of this rule;
- (B) The "permitting body", as defined in section (2) of this rule when used in **40 CFR 124.5, 124.6, 124.8, 124.10, 124.12, 124.14, 124.15 and 124.17**;
- (C) The "Commission", when used in **40 CFR 260.30 through 260.41**.

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- (ee) "Residue" means solid waste as defined in **40 CFR 261.2**;
 - (ff) "Site" means the land or water area where any facility or activity is physically located or conducted, including adjacent land used in connection with the facility or activity;
 - (gg) "Spill" means unauthorized disposal;
 - (hh) "Storage" or "Collection" means the containment of hazardous waste either on a temporary basis or for a period of years, in a manner that does not constitute disposal of the hazardous waste;
 - (ii) "Waste Management Unit" means a contiguous area of land on or in which waste is placed. A waste management unit is the largest area in which there is a significant likelihood of mixing of waste constituents in the same area. Usually this is due to the fact that each waste management unit is subject to a uniform set of management practices (e.g., one liner and leachate collection and removal system). The provisions in the OAR Chapter 340, Division 104 regulations (principally the technical standards in **Subparts K-N of 40 CFR Part 264**) establish requirements that are to be implemented on a unit-by-unit basis.
- (3) When used in Divisions 100 to 106 and 108 to 109 and 113 of this chapter, the following terms have the meanings given below:
- (a) "Aeration" means a specific treatment for decontaminating an empty volatile substance container consisting of removing the closure and placing the container in an inverted position for at least 24 hours.
 - (b) "Beneficial Use" means the return of unused pesticide product (e.g., pesticide equipment rinsings, excess spray mixture) or empty pesticide container(s) without processing to the economic mainstream, as a substitute for raw materials in an industrial process or as a commercial product (e.g., melting a container for scrap metal).
 - (c) "Department" means the Department of Environmental Quality.
 - (d) "Empty Container" means a container from which:
 - (A) All the contents have been removed that can be removed using the practices commonly employed to remove materials from that type of container; and
 - (B)(i) No more than one inch of residue remains on the bottom of the container; or
 - (ii) No more than three percent of the total capacity of the container remains in the container if the container is less than or equal to 110 gallons in size; or
 - (iii) No more than 0.3% of the total capacity of the container remains in the container or inner liner if the container is greater than 110 gallons in size; or
 - (iv) If the material is a compressed gas, the pressure in the container is atmospheric.
 - (e) "Household Use" means use by the home or dwelling owner in or around households (including single and multiple residences, hotels and motels).
 - (f) "Jet Rinsing" means a specific treatment for an empty container using the following procedure:
 - (A) A nozzle is inserted into the container, or the empty container is inverted over a nozzle such that all interior surfaces of the container can be rinsed; and
 - (B) The container is thoroughly rinsed using an appropriate solvent.
 - (g) "Multiple Rinsing" means a specific treatment for an empty container repeating the following procedure a minimum of three times:
 - (A) An appropriate solvent is placed in the container in an amount equal to at least 10% of the container volume; and
 - (B) The container is agitated to rinse all interior surfaces; and
 - (C) The container is opened and drained, allowing at least 30 seconds after drips start.

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(h) "Pesticide" means any substance or combination of substances intended for the purpose of defoliating plants or for the preventing, destroying, repelling, or mitigating of insects, fungi, weeds, rodents, or predatory animals; including but not limited to defoliant, desiccants, fungicides, herbicides, insecticides, and nematocides as defined by ORS 634.006.

(i) "Pesticide Equipment" means any equipment, machinery or device used in pesticide manufacture, repackaging, formulation, bulking and mixing, use, cleaning up spills, or preparation for use or application of pesticides, including but not limited to aircraft, ground spraying equipment, hoppers, tanks, booms and hoses.

(j) "Pesticide Residue" is a hazardous waste that is generated from pesticide operations and pesticide management, such as, from pesticide use (except household use), manufacturing, repackaging, formulation, bulking and mixing, and spills. Pesticide residue includes, but is not limited to, unused commercial pesticides, tank or container bottoms or sludges, pesticide spray mixture, container rinsings and pesticide equipment washings, and substances generated from pesticide treatment, recycling, disposal, and rinsing spray and pesticide equipment. Pesticide residue does not include pesticide-containing materials that are used according to label instructions, and substances such as, but not limited to treated soil, treated wood, foodstuff, water, vegetation, and treated seeds where pesticides were applied according to label instructions.

(k) "Public-Use Airport" means an airport open to the flying public which may or may not be attended or have service available.

(l) "Reuse" means the return of a commodity to the economic mainstream for use in the same kind of application as before without change in its identity (e.g., a container used to repackage a pesticide formulation).

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the agency.]

Stat. Auth.: ORS 465.009 & ORS 466.020

Stats. Implemented: ORS 465.003, ORS 465.009, ORS 466.005, ORS 466.075 & ORS 466.105

Hist.: DEQ 7-1984, f. & cert. ef. 4-26-84; DEQ 8-1985, f. & ef. 7-25-85; DEQ 4-1991, f. & cert. ef. 3-15-91 (and corrected 6-20-91); DEQ 12-1996, f. & cert. ef. 7-31-96; Renumbered from 340-109-0002; DEQ 10-2000, f. & cert. ef. 7-21-00

340-100-0020

Petitions, General

(1) Any person may petition the Department to approve an equivalent testing or analytical method or may petition the Commission to exclude a waste produced at a particular facility. This rule sets forth general requirements which apply to all such petitions.

(2) Persons submitting petitions shall comply with the requirements of **40 CFR 260.20**.

(3) After evaluating all public comments, the Department or Commission as appropriate will make a decision to grant or deny the petition. Persons commenting on the petition will be notified and the decision placed in the public record.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the agency.]

Stat. Auth.: ORS 183, ORS 459 & ORS 468

Stats. Implemented: ORS 466.020 & ORS 468.020

Hist.: DEQ 8-1985, f. & ef. 7-25-85

340-100-0021

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Petitions for Equivalent Testing or Analytical Methods

(1) Any person seeking to add a testing or analytical method to OAR Chapter 340, Division 101, 104 or 105 shall petition under this rule and OAR 340-100-0020.

(2) Persons submitting petitions shall comply with the requirements of **40 CFR 260.21**.

(3) If the Department permits use of a new testing or analytical method, the method will be made available for public inspection in the manner indicated in OAR 340-100-0011(2).

NOTE: In most instances, the Department will not consider approving a testing or analytical method until it has been approved by EPA.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the agency.]

Stat. Auth.: ORS 183, ORS 459 & ORS 468

Stats. Implemented: ORS 466.020 & ORS 468.020

Hist.: DEQ 8-1985, f. & ef. 7-25-85

340-100-0022

Petitions to Amend Division 101 to Exclude a Waste Produced at a Particular Facility

(1) Any person seeking to exclude a waste at a particular generating facility from the lists in **Subpart D of Part 261** shall petition under this rule and OAR 340-100-0020.

(2) Persons submitting petitions shall comply with the requirements of **40 CFR 260.22**.

(3) The Commission may (but shall not be required to) grant a temporary exclusion before making a final decision under **40 CFR 260.20(d)** whenever it finds that there is a substantial likelihood that an exclusion will be finally granted. The Commission will place any such temporary exclusion in the public record.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the agency.]

Stat. Auth.: ORS 183, ORS 459 & ORS 468

Stats. Implemented: ORS 466.020, ORS 466.075 & ORS 468.020

Hist.: DEQ 8-1985, f. & ef. 7-25-85

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DEPARTMENT OF ENVIRONMENTAL QUALITY

DIVISION 101

IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

340-101-0001

Purpose and Scope

(1) The purpose of this Division is to identify those residues which are subject to regulation as hazardous wastes under Divisions 100 to 106, 108, 109, 111, ~~and 113~~ and 124 of this Chapter.

(2) Persons must also consult **40 CFR Parts 124, 260 to 266, 268, 270, 273, and 279**, which are incorporated by reference in OAR 340-100-0002, to determine all applicable hazardous waste management requirements.

[Publications: The Publication(s) referred to or incorporated by reference in this rule are available from the agency.]

Stat. Auth.: ORS 183.325 to ORS 183.337, ORS 459, ORS 465.009, ORS 466.020 & ORS 468.020

Stats. Implemented: ORS 465.009, ORS 466.075 & ORS 466.105

Hist.: DEQ 7-1984, f. & ef. 4-26-84; Superseded by DEQ 8-1985, f. & ef. 7-25-85 DEQ 8-1985, f. & ef. 7-25-85; DEQ 12-1996, f. & cert. ef. 7-31-96

340-101-0004

Exclusions

(1) The provisions of **40 CFR 261.4(b)(7)** are adopted except that **40 CFR 261.4(b)(7)(ii)** is deleted.

(2) Residue described in **40 CFR 261.4(b)(9)** is exempted from Divisions 100-106 and 109.

(3) The provisions of **40 CFR 261.4(g)** are deleted.

(4) Dry cleaning wastewater subject to the requirements in OAR 340 Division 124 is not excluded pursuant to 40 CFR 261.4(a)(1)(i) and (ii).

[Publications: Copies of the publications referenced in this rule are available from the agency.]

Stat. Auth.: ORS 466.020 & 466.180

Stats. Implemented: ORS 466.015, ORS 466.195 & ORS 465.505

Hist.: DEQ 7-1984, f. & ef. 4-26-84; Superseded by DEQ 8-1985; DEQ 8-1985, f. & ef. 7-25-85; DEQ 6-1994, f. & cert. ef. 3-22-94; DEQ 4-1999, f. & cert. ef. 3-19-99; DEQ 10-2000, f. & cert. ef. 7-21-00

340-101-0007

Special Requirements For Hazardous Waste Generated By Conditionally Exempt Small Quantity Generators

(1) The provision of 40 CFR 261.5(f)(3)(iv) and (v) and 40 CFR 261.5(g)(3)(iv) and (v) and 40 CFR 261.5(j) do not apply to generators of hazardous waste, including dry cleaning wastewater, generated from dry cleaning operations at dry cleaning facilities.

(2) In addition to the requirements of CFR 261.5(f)(2) and 40 CFR 261.5(g)(2), generators of hazardous waste, including dry cleaning wastewater, derived from dry cleaning operations at dry cleaning facilities shall comply with additional management requirements in OAR 340-124.

Stat. Auth.: ORS 466.015, 466.180 & ORS 465.505

Stats. Implemented: ORS 466.075, ORS 466.195 & ORS 465.505

340-101-0030

Chemical Agent Munitions and Chemical Agent Bulk Items

Notwithstanding any otherwise applicable provisions of 40 CFR 260 to 270, or other provisions of these rules, chemical agent munitions and chemical agent bulk items in storage as of the effective date of this rule are residues, and listed hazardous wastes assigned the appropriate waste codes in OAR 340-102-0011(2)(c)(A)(i) and (ii).

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Stat. Auth: ORS 466.005, ORS 466.010 to ORS 466.035, ORS 466.625 & ORS 466.630
Stats. Implemented: ORS 466.205 to ORS 466.225, ORS 466.605 to ORS 466.680, ORS 468.005 to ORS
468.075 & ORS 468.090 to ORS 468.140
Hist.: DEQ 3-2001, f. & cert. ef. 3-27-01

340-101-0033

Additional Hazardous Wastes

(1)(a) This section applies to residues that have been determined not to be hazardous waste under **40 CFR 261, Subparts C and D**.

(b) This section does not apply to residues that have been identified as hazardous waste under **40 CFR 261, Subparts C and D**.

(2) Except as provided in section (4) of this rule, the residues identified in subsections (2)(a) and (2)(b) of this rule are hazardous wastes and are added to and made a part of the list of hazardous wastes in **40 CFR 261.33**.

(a) Any residue, including but not limited to manufacturing process wastes and unused chemicals that has either:

(A) A 3 percent or greater concentration of any substance or mixture of substances listed in **40 CFR 261.33(e)**;

(B) A 10 percent or greater concentration of any substance or mixture of substances listed in **40 CFR 261.33(f)**; or

(b) Any residue or contaminated soil, water or other debris resulting from the cleanup of a spill into or on any land or water, of either:

(A) A residue identified in subsection (2)(a)(A) of this rule; or

(B) A residue identified in subsection (2)(a)(B) of this rule.

(3) A residue identified as a hazardous waste in subsections (2)(a) or (2)(b) of this rule, and not excluded under section (4) of this rule, has the hazardous waste letters "OR" followed by the corresponding hazardous waste number(s) in **40 CFR 261.33(e) and (f)**.

(4) The following residues are not additional hazardous wastes under section (2) of this rule:

(a) Mixtures of pesticides identified in section (2) of this rule that are listed in **40 CFR 261.33(e) and (f)**;

(b) Those substances or mixtures of substances with individual constituents only listed in both **40 CFR 261.24, Table 1, and 40 CFR 261.33(e) and (f)**; and

(c) U075 (Dichlorodifluoro-methane) and U121 (Trichloromonofluoromethane) when they are intended to be recycled.

NOTE: Pesticide mixtures excluded in Section (4)(a) of this rule are regulated as pesticide residue in Section (6) of this rule.

(5) The wastes identified in subsections (2)(a)(A) and 2 (b)(A) of this rule are identified as acutely hazardous wastes (H) and are subject to the small quantity exclusion defined in **40 CFR 261.5(e)**.

(6) Any pesticide residue, except residue listed in **Table 1 of 40 CFR 261.24** and which passes the evaluation requirement of **40 CFR 261.24(a)**, is a hazardous waste and is added to and made a part of the list of hazardous waste in **40 CFR 261.31** until it is first managed in accordance with the standards in OAR 340-109-0010(2)(a).

Note: 340-101-0033(7) and 340-101-0033(8) have been moved to 340-102-0011(c).

(7) Except as otherwise specified in OAR 340-109-0010(4)(b) hazardous waste identified in this rule is not subject to **40 CFR Part 268**.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the agency.]

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Stat. Auth.: ORS 466.020 & ORS 466.180

Stats. Implemented: ORS 466.015 & ORS 466.195

Hist.: DEQ 7-1984, f. & ef. 4-26-84; DEQ 17-1984, f. & ef. 8-22-84; Superseded by DEQ 8-1985; DEQ 8-1985, f. & ef. 7-25-85; DEQ 12-1989, f. & cert. ef. 6-12-89; DEQ 4-1991, f. & cert. ef. 3-15-91 (and corrected 6-20-91); DEQ 11-1992, f. & cert. ef. 6-9-92; DEQ 6-1994, f. & cert. ef. 3-22-94; DEQ 12-1996, f. & cert. ef. 7-31-96; DEQ 10-2000, f. & cert. ef. 7-21-00

340-101-0040

Wastes Requiring Special Management

(1) Abrasive Blast Waste Containing Pesticides. Abrasive blast waste which contains pesticides that do not meet the criteria specified in **40 CFR Part 261, Subpart C**, is not a federal hazardous waste for any other reason, and fails the "Department of Environmental Quality Aquatic Toxicity Test," whereby a representative sample of a pesticide residue exhibits a 96-hour aquatic toxicity LC50 equal to or less than 250 mg/l, are not subject to OAR Chapter 340, Divisions 100 to 106, 108, and 109 provided:

(a) The waste is prevented from entering the environment; and:

[NOTE: The practices described in **Appendix 1**, "Best Pollution Prevention Practices for Abrasive Blast Media Waste from Shipyard Repair Facilities," provide guidance. The guidance in **Appendix 1** or equivalent Best Pollution Prevention Practices should be used.]

(b) The waste is not stored for more than six months unless the generator demonstrates that a longer storage time is necessary to meet the management standards in OAR 340-101-0040(1)(c); and,

(c) The waste is recycled, disposed of according to OAR 340-093-0190(1)(f), or disposed of at a hazardous waste facility or other facility authorized to receive such waste.

(2) Pesticide Treated Wood. Spent treated wood that is used or reused for a purpose for which the material would be treated is exempt from OAR 340-101-0040(2). Waste resulting from the use of newly pesticide-treated wood (including scrap lumber, shavings and sawdust; waste resulting from shaping pesticide-treated wood, such as sawdust, shavings and chips; and treated wood removed from service) that does not meet the criteria specified in **40 CFR Part 261, Subpart C**; and is not a federal hazardous waste for any other reason; and is not otherwise excluded by **40 CFR 261.4(b)(9)**, and is not pesticide residue as defined in OAR 340-100-0010(3)(j) is not subject to Divisions 100 to 106, 108, and 109 provided:

(a) the waste is not stored for more than six months unless the generator demonstrates that a longer storage time is necessary to meet the management standards in OAR 340-101-0040(2)(b); and

(b) the waste is recycled or disposed of according to OAR 340-093-0190(1)(g) or is managed at a facility authorized to receive such waste.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the agency.]

[ED. NOTE: The Appendix referenced in this rule is not printed in the OAR Compilation. Copies are available from the agency.]

Stat. Auth.: ORS 183.325 to ORS 183.337, ORS 465.009, ORS 466.020, ORS 466.090 & ORS 468.020

Stats. Implemented: ORS 466.020, ORS 466.025, ORS 466.075 & ORS 466.100

Hist.: DEQ 6-1994, f. & cert. ef. 3-22-94; DEQ 11-1995, f. & cert. ef. 5-19-95; DEQ 12-1996, f. & cert. ef. 7-31-96

340-101-0050

Standards for Materials Being Recycled

The following portion of **40 CFR 266.20(b)** "... However, zinc-containing fertilizers using hazardous waste K061 that are produced for the general public's use are not presently subject to regulation" shall be replaced by "...However, zinc-containing fertilizers using hazardous waste K061 that are produced for use in Oregon, and which contain non-nutrients at levels exceeding the applicable prohibition levels for any

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non-nutrients as specified in Table 1 must comply with those prohibition levels. [Table not included. See ED. NOTE.] Compliance with these standards is required by March 31, 2000.

[ED. NOTE: Copies of the Table referenced in this rule are available from the agency.]

Stat. Auth.: ORS 466.015, ORS 466.020, ORS 466.025, ORS 466.070, ORS 466.075, ORS 466.086, ORS 466.095 & ORS 466.100

Stats. Implemented: ORS 466.015, ORS 466.020, ORS 466.025, ORS 466.070, ORS 466.075, ORS 466.086, ORS 466.095 & ORS 466.100

Hist.: DEQ 4-1999, f. & cert. ef. 3-19-99

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**DIVISION 102
STANDARDS APPLICABLE TO GENERATORS OF
HAZARDOUS WASTE**

340-102-0010

Purpose, Scope and Applicability

- (1) The purpose of this Division is to establish standards for generators of hazardous waste.
- (2) Persons must also consult **40 CFR Parts 124, 260 to 266, 268, 270, 273 and 279** which are incorporated by reference in OAR 340-100-0002, to determine all applicable hazardous waste management requirements.
- (3) Any person identified in section (4) of this rule is exempt from compliance with Divisions 100 to 106 provided such person complies with the requirements of Division 109.
- (4) Exemptions under section (3) of this rule: Any person who produces an unwanted pesticide residue other than unused commercial chemical product pesticide from:
 - (a) Pesticide manufacturing, repackaging, formulating, bulking, mixing, application, use, and cleaning up spilled material;
 - (b) Agricultural pest control (for example, on crops, livestock, Christmas trees, commercial nursery plants or grassland);
 - (c) Industrial pest control (for example, in warehouses, grain elevators, tank farms or rail yards);
 - (d) Structural pest control (for example, in human dwellings);
 - (e) Ornamental and turf pest control (for example, on ornamental trees, shrubs, flowers or turf);
 - (f) Forest pest control;
 - (g) Recreational pest control (for example, in parks or golf courses);
 - (h) Governmental pest control (for example, for clearing a right-of-way or vector, predator, and aquatic pest control);
 - (i) Seed treatment;
 - (j) Pesticide demonstration and research; or
 - (k) Wood treatment (for example, lumber, poles, ties and other wood products).
- (5) A person who generates a hazardous waste as defined by **40 CFR 261.3** must comply with the requirements of this Division. Failure to comply will subject a person to the compliance requirements and penalties prescribed by ORS 466.185 to 466.210, 459.992 and 466.995, 459.995, 466.880, 466.890, 466.895, 466.900 and OAR Chapter 340, Division 12.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the agency.]

Stat. Auth.: ORS 183.325 to ORS 183.337, ORS 459, ORS 465.009, ORS 466.020, ORS 465.009 & ORS 468.020

Stats. Implemented: ORS 466.010, ORS 466.015, ORS 466.020, ORS 466.075 & ORS 466.195

Hist.: DEQ 8-1985, f. & ef. 7-25-85; DEQ 4-1991, f. & cert. ef. 3-15-91 (and corrected 6-20-91); DEQ 12-1996, f. & cert. ef. 7-31-96

340-102-0011

Hazardous Waste Determination

- (1) The provisions of this rule replace the requirements of **40 CFR 262.11**.
- (2) A person who generates a residue as defined in OAR 340-100-0010 must determine if that residue is a hazardous waste using the following method:
 - (a) Persons should first determine if the waste is excluded from regulation under **40 CFR 261.4** or OAR 340-101-0004;

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(b) Persons must then determine if the waste is listed as a hazardous waste in **Subpart D of 40 CFR Part 261**;

(c) Persons must then determine if the waste is listed under the following listings:

(A) The commercial chemical products, manufacturing chemical intermediates, or off-specification commercial chemical products or manufacturing chemical intermediates identified in 340-102-0011(2)(c)(A)(i) and (ii) are added to and made a part of the list in **40 CFR 261.33(e)**.

(i) P998 -- Blister agents (such as Mustard agent)

(ii) P999 -- Nerve agents (such as GB (Sarin) and VX); or

(B) Hazardous waste identified in 340-102-0011(2)(c)(B)(i) and (ii) are added to and made a part of the list in **40 CFR 261.31**.

(i) F998 -- Residues from demilitarization, treatment, and testing of blister agents (such as Mustard agent).

(ii) F999 -- Residues from demilitarization, treatment, and testing of nerve agents (such as GB (Sarin) and VX).

NOTE: Even if the waste is listed, the generator still has an opportunity under OAR 340-100-0022 to demonstrate to the Commission that the waste from his/her particular facility or operation is not a hazardous waste.

(d) Regardless of whether a hazardous waste is listed through application of subsections 2(b) or 2(c) of this rule, persons must also determine whether the waste is hazardous under **Subpart C of 40 CFR Part 261** by either:

(A) Testing the waste according to the methods set forth in **Subpart C of 40 CFR 261**, or according to an equivalent method approved by the Department under OAR 340-100-0021.

NOTE: In most instances, the Department will not consider approving a test method until it has been approved by EPA.

(B) Applying knowledge of the hazard characteristic of the waste in light of the materials or the processes used.

(e) If the waste is determined to be hazardous, the generator must refer to Divisions 100-106 and **40 CFR Parts 264, 265, and 268** for possible exclusions or restrictions pertaining to management of his/her specific waste.

NOTE: **40 CFR 268.3** prohibits dilution of a hazardous waste to meet Land Disposal Restriction treatment standards. Diluting waste without a permit to meet any hazardous waste standard is prohibited.

(f) If the waste is not identified as hazardous by application of subsection (2)(b) or (2)(c), and/or (2)(d) of this rule, persons must determine if the waste is listed under OAR 340-101-0033.

(3) A person who generates a residue, as defined in OAR 340-100-0010(2)(ee), must keep a copy of the documentation used to determine whether the residue is a hazardous waste, under section (2) of this rule, for a minimum of three years after the waste stream is no longer generated, or as prescribed in **40 CFR 262.40(c)**. If no documentation is created in making the wastestream determination, then no new documentation need be created.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the agency.]

Stat. Auth.: ORS 466.020 & ORS 466.180

Stats. Implemented: ORS 466.015 & ORS 466.195

Hist.: DEQ 8-1985, f. & ef. 7-25-85; DEQ 4-1991, f. & cert. ef. 3-15-91 (and corrected 6-20-91); DEQ 24-1992, f. 10-23-92, cert. ef. 11-1-92; DEQ 6-1994, f. & cert. ef. 3-22-94; DEQ 10-2000, f. & cert. ef. 7-21-00

340-102-0012

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Identification Number and Verification

In addition to the provisions of **40 CFR 262.12**, as a matter of policy, the Department will accept EPA identification numbers already assigned and use a modified EPA registration form and identification numbering system (Dun and Bradstreet) for generators who register in the future. Effective January 1, 1991, and annually thereafter, hazardous waste generators and hazardous waste management and recycling facilities shall verify registration information on a form provided by the Department.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the agency.]

Stat. Auth.: ORS 183, ORS 459, ORS 466.020, ORS 466.075, ORS 466.165, ORS 466.195 & ORS 468
Stats. Implemented: ORS 466.075

Hist.: DEQ 8-1985, f. & ef. 7-25-85; DEQ 13-1991, f. & cert. ef. 8-5-91

340-102-0034

Accumulation Time, Container and Tank Management Standards

(1) In addition to the requirements of **40 CFR 262.34**, a generator may accumulate hazardous waste on-site for 90 days or less without a permit provided that, if storing in excess of 100 containers, the waste is placed in a storage unit that meets the requirements of **40 CFR 264.175**.

(2) A generator shall comply with provisions found in **40 CFR, Part 262** and each applicable requirement of **40 CFR 262.34(a), (b), (c), (d), (e), and (f)**.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the agency.]

Stat. Auth.: ORS 192, ORS 465.009, ORS 466.015, ORS 466.020, ORS 466.075, ORS 466.090, ORS
468.020 & ORS 646

Stats. Implemented: ORS 466.075

Hist.: DEQ 8-1985, f. & ef. 7-25-85; DEQ 23-1987, f. & ef. 12-16-87; DEQ 6-1994, f. & cert. ef. 3-22-94

340-102-0040

Recordkeeping

(1) The provisions of section (2) of this rule replace the requirements of **40 CFR 262.40(b)**.

(2) A generator must keep a copy of reports submitted to the Department under OAR 340-102-0041 and under **40 CFR 262.42(b)** for a period of at least three years from the due date of the report.

(3) The record retention requirement of section (2) of this rule applies to the provisions of **40 CFR 262.44**.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the agency.]

Stat. Auth.: ORS 183.325 - ORS 183.337, ORS 459, ORS 465.009, ORS 466.020, ORS 465.009, ORS
468.020 & ORS 468

Stats. Implemented: ORS 466.075 & ORS 466.090

Hist.: DEQ 8-1985, f. & ef. 7-25-85; DEQ 13-1991, f. & cert. ef. 8-5-91; DEQ 12-1996, f. & cert. ef. 7-
31-96

340-102-0041

Generator Reporting

(1) The provisions of this rule replace the requirements of **40 CFR 262.41**.

(2) A person producing at any time more than one kilogram of acutely hazardous waste, a total of more than 100 kilograms of hazardous waste in a calendar month, or who accumulates on-site at any time a total of more than 1,000 kilograms of hazardous waste, shall submit Quarterly Reports through the period ending December 31, 1991 to the Department. Effective January 1, 1992, and annually thereafter, a report shall be submitted to the Department, on a form provided by the Department, or by other means agreed to

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by the Department, by persons defined as small quantity hazardous waste generators, large quantity hazardous waste generators, and/or hazardous waste recyclers. The report shall contain information required by the Department covering activities from the preceding calendar year. Reports shall be submitted by March 1, or within 65 days of mailing by the Department, whichever is later. Upon written request and reasonable justification, the Department may grant an extension to the reporting deadline of up to 30 days. The annual report shall contain:

- (a) Information required for purposes of notification of hazardous waste activity and/or annual verification of hazardous waste generator status;
- (b) Information required for purposes of describing hazardous waste generator and waste management activity, including information pertaining to hazardous waste storage, treatment, disposal, and recycling efforts and practices;
- (c) Information required for the assessment of fees; and
- (d) Information required for the Department's preparation and completion of the Biennial Report and Capacity Assurance Plan.

(3) Quarterly Reports are due within 45 days after the end of each calendar quarter for 1991 (the final quarterly report will be due February 15, 1992). The quarterly reporting requirement will sunset on December 31, 1991:

(a) The Quarterly Report shall include, but not be limited to the following information:

(A) A copy of the completed manifest or a listing of the information from each manifest for each shipment made during the calendar quarter;

(B) A listing of all additional hazardous waste generated during the quarter that was sent off-site without a manifest or was used, reused or reclaimed on-site, on a form provided by the Department. The listing shall include, but not be limited to:

(i) The generator's name and address;

(ii) The generator's U.S. EPA/DEQ Identification Number;

(iii) Identification of the calendar quarter in which the waste was generated;

(iv) The type and quantity of each waste generated, by EPA code number; and

(v) The disposition of each waste, including the identity of the receiving party for wastes shipped off-site and handling method; and

(C) If no hazardous waste was generated during the quarter, a statement to that effect, on a form provided by the Department.

(b) Reports submitted to the Department must be accompanied by the following certification signed and dated by the generator or his/her authorized representative: **"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this demonstration and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."**

(4) Any generator who is receiving hazardous waste from off-site, generating or managing hazardous waste on-site, including recycling, except closed-loop recycling must submit an annual report covering those wastes and activities in accordance with the provisions of OAR 340-104-0075 and of **40 CFR, Part 266**.

(5) Dry cleaning operators of dry cleaning facilities must complete an annual dry cleaner hazardous waste and air quality compliance report pursuant to OAR 340-124.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the agency.]

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Stat. Auth.: ORS 183, ORS 466.020, ORS 466.075, ORS 466.105, ORS 466.165, ORS 466.195 & ORS 468

Stats. Implemented: ORS 466.075 & ORS 466.090

Hist.: DEQ 8-1985, f. & ef. 7-25-85; DEQ 10-1987, f. & ef. 6-11-87; DEQ 19-1988, f. & cert. ef. 7-13-88; DEQ 4-1991, f. & cert. ef. 3-15-91 (and corrected 6-20-91); DEQ 13-1991, f. & cert. ef. 8-5-91

340-102-0050

International Shipments

- (1) Any person who is required to comply with **40 CFR 262.50** through **262.58** shall also comply with section (2) of this rule.
- (2) When shipping hazardous waste outside the United States, the generator must notify the Department in writing in accordance with **40 CFR 262.53**.
- (3) These notices must be sent to Department of Environmental Quality, Hazardous Waste Section.
[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the agency.]

Stat. Auth.: ORS 183, ORS 459, ORS 466 & ORS 468

Stats. Implemented: ORS 466.075

Hist.: DEQ 8-1985, f. & ef. 7-25-85; DEQ 19-1988, f. & cert. ef. 7-13-88

340-102-0060

Instructions for the Uniform Hazardous Waste Manifest

- (1) In addition to the instructions in the **Appendix to 40 CFR Part 262**, relating to completion of the Uniform Hazardous Waste Manifest, generators shall also comply with sections (2), (3), (4), and (5) of this rule.
- (2) Enter a telephone number where an authorized agent of the first transporter may be reached in the event of an emergency, in:
 - (a) Item D of EPA Form 8700-22; and
 - (b) Item O of EPA Form 8700-22A, if applicable.
- (3) Enter a telephone number where an authorized agent of the second transporter may be reached in the event of an emergency, in:
 - (a) Item F of EPA Form 8700-22; and
 - (b) Item Q of EPA Form 8700-22A, if applicable.
- (4) Enter a telephone number where an authorized agent of the facility may be reached in the event of an emergency in Item H of EPA Form 8700-22.
- (5) Enter the EPA Hazardous Waste Number in:
 - (a) Item I of EPA Form 8700-22; and
 - (b) Item R of EPA Form 8700-22A, if applicable.
- (6) The authorized disposal request number may be entered in:
 - (a) Item 15 of EPA Form 8700-22; and
 - (b) Item 32 of EPA Form 8700-22A, if applicable.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the agency.]

Stat. Auth.: ORS 183, ORS 459 & ORS 468

Stats. Implemented: ORS 466.020 & ORS 466.075

Hist.: DEQ 8-1985, f. & ef. 7-25-85

340-102-0065

Hazardous Waste Generator Fees

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(1) Each person generating more than 100 kilograms (220 pounds) of hazardous waste, or more than 1 kilogram (2.2 pounds) of acutely hazardous waste, in any calendar month, or accumulating more than 1,000 kilograms (2,200 pounds) of hazardous waste at any time in a calendar year, shall be subject to an annual hazardous waste generation fee. Fees shall be assessed annually for hazardous waste management activities in the previous year.

(2) A late charge equal to ten percent of the fee due shall be assessed if the fees are not received by the Department by the due date shown on the invoice. An additional late charge of ten percent of the unpaid amount shall also be assessed each 30 days that the invoice remains unpaid. After 90 days no further Department late charges shall be assessed; however, such invoices may be referred to the Department of Revenue for collection or collected in Small Claims Court. Accounts referred to the Department of Revenue for collection or collected in Small Claims Court shall be increased by 20 percent of the unpaid amount or \$100, whichever is greater, to recover a portion of the costs for referral or collection.

(3) A base hazardous waste generation fee, expressed in mills per kilogram, shall be fixed by rule by the Commission, based on reports from the Department on the total amount of hazardous waste generated in the state and the methods by which the waste was managed:

(a) The Department may use the base fee, or any lesser fee, to determine annual generation fee invoices. Any increase in the base fee must be fixed by rule by the Commission;

(b) Beginning with hazardous waste generated and managed during 1996, the base fee is fixed at 90 mills per kilogram (\$90 per metric ton).

(4) Each person's hazardous waste generation fee shall be calculated by multiplying the base fee by the weight of each hazardous waste stream and by the fee factors listed below for the management method reported in the annual generation report (OAR 340-102-0041) as follows: [Table not included. See ED. NOTE.]

(5) The maximum annual hazardous waste generation fee on any initial fee invoice shall be limited to \$22,500.

(6) Effective January 1, 1997, in addition to the annual hazardous waste generation fee, each hazardous waste generator shall be subject to an annual hazardous waste activity verification fee, upon billing by the Department, as follows:

(a) Large Quantity Generator: \$525;

(b) Small Quantity Generator: \$300;

(c) Conditionally Exempt Small Quantity Generator: No Fee.

[ED. NOTE: The Table(s) referenced in this rule is not printed in the OAR Compilation. Copies are available from the agency.]

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the agency.]

Stat. Auth.: ORS 466.165 & ORS 468.020

Stats. Implemented: ORS 466.165

Hist.: DEQ 8-1985, f. & ef. 7-25-85; DEQ 14-1987, f. & ef. 7-28-87; DEQ 11-1988, f. & cert. ef. 5-19-88; DEQ 19-1989(Temp), f. & cert. ef. 7-31-89 (and corrected 8-3-89); DEQ 33-1989, f. & cert. ef. 12-14-89; DEQ 13-1991, f. & cert. ef. 8-5-91; DEQ 11-1992, f. & cert. ef. 6-9-92; DEQ 2-1994, f. & cert. ef. 2-2-94; DEQ 14-1997, f. & cert. ef. 7-23-97; DEQ 11-1998, f. & cert. ef. 6-26-98

340-102-0070

Farmers

In addition to the provisions of **40 CFR 262.70**, a farmer disposing of waste pesticides from his/her own use which are hazardous wastes shall comply with the requirements of Division 109 of these rules.

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[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the agency.]

Stat. Auth.: ORS 183, ORS 459, ORS 466.020, ORS 466.075, ORS 466.105, ORS 466.195 & ORS 468

Stats. Implemented: ORS 466.020 & ORS 466.075

Hist.: DEQ 8-1985, f. & ef. 7-25-85; DEQ 19, 1988, f. & cert. ef. 7-13-88; Renumbered from 340-102-0051; DEQ 4-1991, f. & cert. ef. 3-15-91 (and corrected 6-20-91)

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340-012-0068

Hazardous Waste Management and Disposal Classification of Violations

Violations pertaining to the management and disposal of hazardous waste, including universal wastes, shall be classified as follows:

(1) Class One:

- (a) Violation of a requirement or condition of a Department or Commission order;
- (b) Failure to make a complete and accurate hazardous waste determination of a residue as required by OAR 340-102-0011;
- (c) Failure to have a waste analysis plan as required by **40 CFR 265.13**;
- (d) Operation of a hazardous waste treatment, storage or disposal facility (TSD) without first obtaining a permit or without having interim status pursuant to OAR 340-105-0010(2)(a);
- (e) Accumulation of hazardous waste on site for longer than twice the applicable generator allowable on-site accumulation period;
- (f) Transporting or offering for transport hazardous waste for off-site shipment without first preparing a manifest;
- (g) Accepting for transport hazardous waste which is not accompanied by a manifest;
- (h) Systematic failure of a hazardous waste generator to comply with the manifest system requirements;
- (i) Failure to submit a manifest discrepancy report or exception report;
- (j) Failure to prevent the unknown entry or prevent the possibility of the unauthorized entry of person or livestock into the waste management area of a TSD facility;
- (k) Failure to manage ignitable, reactive, or incompatible hazardous wastes as required under **40 CFR Part 264 and 265.17(b)(1), (2), (3), (4) and (5)**;
- (l) Illegal disposal of hazardous waste;
- (m) Disposal of hazardous waste in violation of the land disposal restrictions;
- (n) Failure to contain waste pesticide or date containers of waste pesticide as required by OAR 340-109-0010(2);
- (o) Treating or diluting universal wastes in violation of **40 CFR 273.11, 273.31** or OAR 340-113-0030(5);
- (p) Use of empty non-rigid or decontaminated rigid pesticide containers for storage of food, fiber or water intended for human or animal consumption;
- (q) Mixing, solidifying, or otherwise diluting hazardous waste to circumvent land disposal restrictions;
- (r) Incorrectly certifying a hazardous waste for disposal/treatment in violation of the land disposal restrictions;
- (s) Failure to submit a Land Disposal notification, demonstration or certification with a shipment of hazardous waste;
- (t) Shipping universal waste to a site other than an off-site collection site, destination facility or foreign destination in violation of **40 CFR 273.18** or **273.38**;
- (u) Failure to comply with the hazardous waste tank integrity assessments and certification requirements;
- (v) Failure of an owner/operator of a TSD facility to have a closure and/or post closure plan and/or cost estimates;
- (w) Failure of an owner/operator of a TSD facility to retain an independent registered professional engineer to oversee closure activities and certify conformity with an approved closure plan;
- (x) Failure of an owner/operator of a TSD facility to establish or maintain financial assurance for closure and/or post closure care;
- (y) Systematic failure of an owner/operator of a TSD facility or a generator of hazardous waste to conduct inspections;

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- (z) Failure of an owner/operator of a TSD facility or generator to promptly correct any hazardous condition discovered during an inspection;
- (aa) Failing to prepare a Contingency Plan;
- (bb) Failure to follow an emergency procedure contained in a Contingency Plan or other emergency response plan when failure could result in serious harm;
- (cc) Storage of hazardous waste in a container which is leaking or presenting a threat of release;
- (dd) Storing more than 100 containers of hazardous waste without complying with the secondary containment requirements at **40 CFR 264.175**;
- (ee) Systematic failure to follow hazardous waste container labeling requirements or lack of knowledge of container contents;
- (ff) Failure to label a hazardous waste container where such failure could cause an inappropriate response to a spill or leak and substantial harm to public health or the environment;
- (gg) Failure to date a hazardous waste container with a required accumulation date or failure to document length of time hazardous waste was accumulated;
- (hh) Failure to comply with the export requirements for hazardous wastes;
- (ii) Violation of any TSD facility permit, provided that the violation is equivalent to any Class I violation set forth in these rules;
- (jj) Systematic failure to comply with hazardous waste generator annual reporting requirements, Treatment, Storage, Disposal and Recycling facility annual reporting requirements and annual registration information;
- (kk) Failure to properly install groundwater monitoring wells such that detection of hazardous waste or hazardous constituents that migrate from the waste management area cannot be immediately be detected;
- (ll) Failure to install any groundwater monitoring wells;
- (mm) Failure to develop and follow a groundwater sampling and analysis plan using proper techniques and procedures;
- (nn) Generating and treating, storing, disposing of, transporting, and/or offering for transportation, hazardous waste without first obtaining an EPA Identification Number;
- (oo) Systematic failure of a large-quantity hazardous waste generator or TSD facility to properly control volatile organic hazardous waste emissions;
- (pp) Failure to provide access to premises or records when required by law, rule, permit or order;
- (qq) Any violation related to the generation, management and disposal of hazardous waste which causes major harm or poses a major risk of harm to public health or the environment;
- (rr) In addition to the above, the following Class One violations apply to entities regulated under OAR 340-124:
 - (A) Placing hazardous waste generated at a dry cleaning facility at any location other than an appropriately labeled hazardous waste storage container.
 - (B) Discharging dry cleaning wastewater to a sanitary sewer, storm sewer, septic system, boiler or into the waters of the state.
 - (C) Failure to have a secondary containment system under and around the dry cleaning machine as required by OAR 340-124-0040 (3)(a) and under and around stored solvent as required by OAR 340-124-0040 (3)(c).
 - (D) Failure by persons generating hazardous waste at a dry cleaning facility in amounts of 220 pounds a month or less or who never store onsite more than 2,200 pounds of hazardous waste to dispose of hazardous waste within one year of the date the waste was placed in the hazardous waste container.

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- (F) Failure to store hazardous waste in closed containers.
- (G) Failure to treat hazardous waste dry cleaning wastewater in equipment meeting the criteria in OAR 340-124-0040 (2)(c) or (2)(d).
- (H) Failure of a dry cleaning business owner or dry cleaning operator to submit an annual report to the Department.
- (I) Failure of a dry store operator to submit an annual report to the Department.
- (J) Failure to report a release of more than one pound of dry cleaning solvent in a 24 hour period released outside of a containment system.
- (K) Failure to repair the cause of a release of dry cleaning solvent within a containment system.
- (2) Class two:
 - (a) Failure to keep a copy of the documentation used to determine whether a residue is a hazardous waste;
 - (b) Failure to label a tank or container of hazardous wastes with the words "Hazardous Waste," "Pesticide Waste," "Universal Waste" or with other words as required that identify the contents;
 - (c) Failure to comply with hazardous waste generator annual reporting requirements, Treatment, Storage, Disposal and Recycling facility annual reporting requirements and annual registration information, unless otherwise classified;
 - (d) Failing to keep a container of hazardous waste closed except when necessary to add or remove waste;
 - (e) Failing to inspect areas where containers of hazardous waste are stored, at least weekly;
 - (f) Failure of a hazardous waste generator to maintain aisle space adequate to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination;
 - (g) Accumulating hazardous waste on-site, without fully complying with the Personnel Training requirements;
 - (h) Failure to manage universal waste in a manner that prevents releases into the environment;
 - (i) Failure to comply with the empty pesticide container management requirements unless otherwise classified;
 - ~~(j) Failure of dry cleaner subject to ORS 465, to comply with the waste minimization requirements in ORS 465.505(1)(g);~~
 - ~~(k) Failure of a dry cleaner subject to ORS 465, to comply with the waste minimization reporting requirements in ORS 465.505(3);~~
 - ~~(l) Failure of a dry cleaner subject to ORS 465, to immediately report any release of dry cleaning solvent in excess of 12 pound.~~
 - (j) Any violation pertaining to the generation, management and disposal of hazardous waste which is not otherwise classified in these rules is a Class Two violation.
 - (k) In addition to the above, the following Class Two violations apply to entities as regulated under OAR 340-124.
 - (A) Failure to remove dry cleaning solvent remaining in the dry cleaning machine and solvent containing residue in accordance with OAR 340-124-0040(1)(h) and OAR 340-124-0055.
 - (B) Failure to disconnect utilities from a dry cleaning machine at a dry store in accord with OAR 340-124-0055.
 - (C) Failure to comply with the containment requirements in OAR 340-124-0040 (3)(b), (3)(d), (3)(e), (3)(f) and (3)(g).
 - (D) Failure to prominently post the Oregon Emergency Response System telephone number so the number is immediately available to all employees of the dry cleaning facility.
 - (E) Failure of a person delivering perchloroethylene solvent to a dry cleaning facility to use closed direct-coupled delivery according to OAR 340-124-0040(6) when delivering perchloroethylene dry cleaning solvent.

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(F) Failure of a dry cleaning operator at a dry cleaning facility to have closed direct-coupled delivery for perchloroethylene according to OAR 340-124-0040(6).

(G) Failure to label hazardous waste storage container with the words "hazardous waste".

(H) Failure to immediately cleanup a release of dry cleaning solvent within a containment system.

(I) Any violation pertaining to the generation, management and disposal of hazardous waste from a dry cleaning facility which is not otherwise classified in these rules is a Class Two violation.

(3) Class three:

(a) Accumulation of hazardous waste on site by a large-quantity generator for less than ten days over the allowable on-site accumulation period;

(b) Accumulation of hazardous waste on site by a small-quantity generator for less than twenty days over the allowable on-site accumulation period;

(c) Failure of a large-quantity generator of hazardous waste to retain signed copies of manifests for at least three years when less than 5% of the reviewed manifests are missing and the facility is able to obtain copies during the inspection;

(d) Failure of a small-quantity generator of hazardous waste to retain signed copies of manifests for at least three years when only 3 of the reviewed manifests are missing and the facility is able to obtain copies and submit them to the Department within 10 days of the inspection;

(e) Failure to label only one container or tank which is less than 60 gallons in volume and in which hazardous waste was accumulated on site, with the required words "Hazardous Waste," "Pesticide Waste," "Universal Waste" or with other words as required that identify the contents;

(f) Failure of a large-quantity generator to retain copies of land disposal restriction notifications, demonstrations, or certifications when less than 5% of the reviewed land disposal restriction notices are missing and the facility is able to obtain copies during the inspection;

(g) Failure of a small-quantity generator to retain copies of land disposal restriction notifications, demonstrations, or certifications when 3 or fewer of the reviewed land disposal restriction notices missing and the facility is able to obtain copies and submit them to the Department within 10 days of the inspection;

(h) Failure to keep a container of hazardous waste located in a "satellite accumulation area" closed except when necessary to add or remove waste, when only one container is open;

(i) Failure to properly label a container of pesticide-containing material for use or reuse as required by OAR 340-109-0010(1)

(j) In addition to the above, the following Class Three violations apply to entities as regulated under OAR 340-124:

(A) Failure to notify the Department of change or closure at a dry cleaning business or dry store according to 340-124-0050.

[Publications: The publication(s) referenced in this rule is available from the agency.]

Stat. Auth.: ORS 459.995, ORS 466.070 - ORS 466.080, ORS 466.625 & ORS 468.020

Stats. Implemented: ORS 466.635 - ORS 466.680, ORS 466.880 - ORS 466.992 & ORS 468.090 - ORS 468.140

Hist.: DEQ 1-1982, f. & ef. 1-28-82; DEQ 22-1984, f. & ef. 11-8-84; DEQ 9-1986, f. & ef. 5-1-86; DEQ 17-1986, f. & ef. 9-18-86; DEQ 22-1988, f. & cert. ef. 9-14-88; DEQ 4-1989, f. & cert. ef. 3-14-89; DEQ 15-1990, f. & cert. ef. 3-30-90; DEQ 21-1992, f. & cert. ef. 8-11-92; DEQ 19-1998, f. & cert. ef. 10-12-98; DEQ 6-2001, f. 6-18-01, cert. ef. 7-1-01

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Public Input and Department's Response

The public comment period for the dry cleaner rules was from May 15 to July 1, 2002. During the comment period, the Department received oral comments from two participants at the June 17 public hearing and written notice from three citizens.

All of the public comments and the Department's responses are presented below.

340-124-0020

Definitions: (dry cleaning facility)

Comment: "Why did the definition of dry clean facility change?"

Commenter: Clair Anchick, Town & Country Cleaners, Salem, OR, July 1, 2002.

Department Response: The Department evaluated the difference between the proposed definition in the rule and the definition in statute and has determined that the statutory definition is preferable. As a result, the definition of dry clean facility will remain the same as the definition in statute. The Department has added language to the beginning of OAR 340-124-0040 that accomplishes the same purpose by stating the hazardous waste rules and the waste minimization requirements apply to dry cleaning facilities.

340-124-0040

Waste Minimization Requirements:

Comment: "Although we send our fees in on time we don't receive our certificate for several months which puts us in non compliance according to your rules. What is the fine for not sending in your fees on time?"

Commenter: Clair Anchick, Town & Country Cleaners, Salem, OR, July 1, 2002.

Department Response: A dry cleaner is out of compliance only if fees are not paid. A delay in issuing a certificate is not a violation. The Department of Revenue will verify whether or not a dry cleaner is current in paying fees.

Annual fees are not addressed in the proposed rules. The penalty for not sending fees in on time is determined by ORS 305 & 314. The Department of Revenue is responsible for fee collection. The penalty is based on failure to file a return and/or failure to pay the fee in full. The penalty can range from 20 percent to 100 percent of the fee owed. Interest of nine percent is also added to unpaid fees.

Comment: 2(c)(C) states "all spent filters from the wastewater treatment unit are managed as hazardous waste,". I would recommend that an exception be granted for units treating non-hazardous wastewater."

Commenter: Gary Campbell, Campbell's Cleaners, Corvallis, OR, June 14, 2002

Department Response: Non-hazardous waste, such as spent filters generated at a dry cleaning facility, is exempt from having to be managed as a hazardous waste. Section 340-124-0040(c) limits waste management requirements to dry cleaning operators

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treating wastewater containing hazardous waste. A dry cleaner can identify whether or not their waste is hazardous, pursuant to OAR 340-102-0011, by conducting a hazardous waste determination based on either knowledge of the hazardous constituents in chemicals used in the dry cleaning process, or analysis of the waste to learn if it contains any hazardous constituents above regulatory limits.

Comment: "Our hazardous waste container is dated when the first amount of waste is put into the container. According to your rules it must be picked up once a year. This is not necessary for us as it takes between 1 ½ years to 2 years to fill the container and have it hauled off."

Commenter: Clair Anchick, Town & Country Cleaners, Salem, OR, July 1, 2002.

Department Response: The Department agrees with the comment and has changed the rules to allow dry cleaners to request an extension for one additional year of storing hazardous waste on site prior to shipping it offsite.

Comments:

- "...I don't understand the need for a rigid steel containment pan for the hazardous waste container."
- "I'd suggest there may be alternatives to metal more readily available and perhaps more suited to this use."

Commenters: Clair Anchick, Town & Country Cleaners, Salem, OR, July 1, 2002 and Gary Campbell, Campbell's Cleaners, Corvallis, OR, June 14, 2002.

Department Response: The Department agrees with the comments and has changed the rule language to not require rigid steel containment for hazardous waste containers. The rule states that secondary containment for hazardous waste storage containers is constructed of "...rigid material impermeable to the solvent in use..." The Department is aware of rigid plastic containment equipment that is suitable for this purpose.

Comments: Several dry cleaner owners requested that DEQ notify a property owner if the tenant dry cleaner operator is determined to be out of compliance with the requirements of the rules.

Commenters: J. Robert Muse, Vice President, CB Richard Ellis, Portland, oral comment at the June 17 public hearing and in writing June 21, 2002. W. C. DeBauw, Portland, oral comment at the June 17 public hearing.

Department Response: The Department agrees that property owners should be notified when a facility on their property is out of compliance with the hazardous waste requirements of the program. The Department will incorporate this suggestion as policy rather than rule. In the future, when the Department issues a Notice of Noncompliance (NON) to a dry cleaner operator, it will also send a copy of the notice to the dry cleaner owner. It is reasonable for a property owner to require their tenant to submit a copy of the annual report submitted to the Department as a condition of any lease or rental agreement. The property owner will then have the same information as the Department.

Comment: 340-124-0040(5)(a) and 340-12-0068(2)(k)(D) "why not simply specify that the Oregon Emergency Response Number be prominently posted so as to be immediately

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available in case of an emergency instead of requiring it to be on the drycleaning machine. This in fact may be the worst location in event of a major release as people evacuate the area of the spill.”

Commenter: Gary Campbell, Campbell's Cleaners, Corvallis, OR, June 14, 2002

Department Response: The Department agrees with this comment and has changed the rule language to require the Oregon Emergency Response Number to be prominently posted so as to be immediately available to employees of the dry cleaning facility.

340-124-0055

Requirements for Dry Stores

Comment: “Section 340-124-0055: Requires that ...”all drycleaning solvent...;” be removed. I'd suggest different wording. Perhaps simply removing the word “all” ...

Commenter: Gary Campbell, Campbell's Cleaners, Corvallis, June 14, 2002.

Department Response: The Department agrees with the Commenter and the word “all” has been removed from rule.

340-124-0060

Funding from Dry Cleaner Environmental Response Account at Dry Cleaning Facilities:

Comment: “...clarify who is the claimant if the facility needs to be cleaned.”

Commenter: Clair Anchick, Town & Country Cleaners, Salem, OR, July 1, 2002

Department Response: The claimant means the person who files a claim against the dry cleaner account. The Department defined “claimant” in rule 340-124-0020(3).

Comment: Section 340-124-0060: 1(a) requires “The person performing the remedial action...” submit the claim. I don't believe this a correct statement”.

Commenter: Gary Campbell, Campbell's Cleaners, Corvallis, OR, June 14, 2002.

Department Response: Earlier drafts of the rules specified “dry cleaning business owner, dry cleaning operator, or dry cleaning property owner” as parties who may submit claims. The language was changed because the statute does not limit funding eligibility to these parties. The language in the rules that refers to “person performing the remedial action” was used for consistency with ORS 464.510(2)(b) which refers to “...preapproved remedial action costs incurred by a person performing removal or remedial action ...”
The Department confirms that the rule language is correct.

340-012-0068

Hazardous Waste Management and Disposal Classification of Violations

Comment: “I do not believe administrative errors or omissions should result in class one violations. This is much too harsh. Specifically, (D), (E), (H), (I). None of these present a danger to the environment and should therefore be class three violations.

Commenter: Gary Campbell, Campbell's Cleaners, Corvallis, OR, June 14, 2002

Department Response: The conditions identified in (D) and (E) relate to the length of time that hazardous waste is present at the site. The longer hazardous waste is stored, the

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greater the likelihood that a release or accident can occur. Therefore, the Department will leave (D) and (E) as Class 1 violations. This is consistent with comparable hazardous waste violations. The Department has made provisions for those situations where enough hazardous waste is not generated in a year for economical shipping by allowing a dry cleaner to ask the Department for a time extension.

Concerning (H) and (I), the Department disagrees that paper work violations should be viewed as being less offensive. Annual reporting is the only way the Department has of knowing about environmental activities at a dry cleaner or dry store. This information is critical to the operation of the dry cleaner program. Therefore, the Department will retain these violations as Class 1. However, the Department will reconsider these comments during the pending Enforcement and Civil Penalties Rule (OAR 340-012) update.

Comment: "You talk about penalties class 1, 2, &3 yet you don't say what the penalties are and which is worse 1, 2, or 3."

Commenter: Clair Anchick, Town & Country Cleaners, Salem, OR, July 1, 2002.

Department Response: Class one violations are the most egregious violations and are classified as such because they either cause the greatest harm to human health or the environment, or are critical to the structure of the program. These receive the highest dollar amount penalty.

Class two violations are less egregious and are usually associated with failure to take actions that are necessary to prepare for accidents, keep critical information current at facilities or fail to train employees. These receive a lesser dollar amount penalty.

Class three violations are the least egregious and are usually reserved for non-critical paperwork violations that do not result in environmental harm. These receive a nominal dollar amount for a penalty. The violations identified for the dry cleaner rules follow this classification scheme. The Department did not change the proposed rules.

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Date: July 1, 2002

To: Environmental Quality Commission
From: Brooks Koenig
Subject: Presiding Officer's Report for Rulemaking Hearing
Hearing Date and Time: June 17, 2002
Hearing Location: DEQ Headquarters, Room 3A
Title of Proposal: Administrative Rules Applicable to Dry Cleaning
Facilities and Dry Stores

The rulemaking hearing on the above titled proposal was convened initially at 7:10 p.m.. People were asked to sign registration forms if they wished to present comments. People were also advised that the hearing was being recorded. The hearing was recessed temporarily at 7:14 p.m. After receiving some general questions from the floor, the hearings officer had the project manager, Dick DeZeeuw, answer the general questions. The hearing was reconvened at 7:35 p.m. and closed at 7:40 p.m..

Prior to receiving comments, Dick DeZeeuw briefly explained the specific rulemaking proposal and the procedures to be followed during the hearing.

Five people were in attendance. Two people signed up to give comments.

Two oral comments received during the hearing are summarized below and responded to in Attachment C, Public Input and Department's Response.

Mr. W. C. DeBauw spoke as a concerned owner who rents space to a dry cleaner. Mr. DeBauw wanted DEQ to notify owners whether dry cleaner tenants were in full compliance with the dry cleaner rules. Mr. DeBauw stated that he would want to be notified of any non-compliance so he could receive coverage under the owner provisions of the rules.

Mr. Bob Muse also spoke as an owner renting to a dry cleaner. Mr. Muse shared Mr. DeBauw's concerns and wanted DEQ to have an affirmative duty to report any dry cleaner non-compliance to the property owner. Mr. Muse expressed the opinion that owners would gladly pay a \$250 annual fee so their properties would be "covered."

There were no other comments offered for the record.

**Questions to be Answered to Reveal
Potential Justification for Differing from Federal Requirements.**

Administrative Rules Applicable to Dry Cleaning Facilities and Dry Stores

1. Are there federal requirements that are applicable to this situation? If so, exactly what are they?

Federal Resource Conservation and Recovery Act (RCRA) regulates hazardous waste generators. Dry cleaners are usually conditionally exempt small quantity generators in RCRA. Oregon's dry cleaner statute regulates dry cleaners that generate any hazardous waste.

Federal Clean Air Act governs a broad range of air quality impacts from manufacturing and processing, to transportation and management of hazardous chemicals. Sources that emit hazardous air pollutants must conform to the National Emission Standards for Hazardous Air Pollutants (NESHAP). NESHAP requires the maximum degree of reduction in hazardous air pollutant emissions. NESHAP regulates work practices, recordkeeping, equipment and reporting for dry cleaners that use perchloroethylene.

Federal Comprehensive Response, Compensation, and Liability Act (CERCLA) provides a response mechanism for uncontrolled release of hazardous substances to the environment. CERCLA provides authority for State and Federal governments to respond to release of hazardous substances into the environment. It also establishes liability for responsible parties to pay for the cost of cleaning up contamination. Oregon's dry cleaner statute states that individual dry cleaners who pay fees will not be liable under Oregon law for the cost of cleaning up a site contaminated due to past practices.

2. Are the applicable federal requirements performance based, technology based, or both with the most stringent controlling?

Applicable federal requirements are both performance and technology based.

3. Do the applicable federal requirements specifically address the issues that are of concern in Oregon? Was data or information that would reasonably reflect Oregon's concern and situation considered in the federal process that established the federal requirements?

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No, the Oregon standard for dry cleaners is to be a "zero release" industry. This standard was established as part of the agreement whereby dry cleaners are exempt from having to clean up contamination at dry cleaning facilities. The basis of Oregon's dry cleaner program is that industry has agreed to take measures that prevent future sites from becoming contaminated with dry cleaning solvents and to pay fees which go into an account to be used to clean up existing contamination. In exchange they receive exemption from cleanup liability.

4. Will the proposed requirement improve the ability of the regulated community to comply in a more cost effective way by clarifying confusing or potentially conflicting requirements (within or cross-media), increasing certainty, or preventing or reducing the need for costly retrofit to meet more stringent requirements later?

Yes, the proposed rules clarify the waste minimization requirements in statute. The cost of meeting the rule requirements is much less than the cost of cleaning up spills.

5. Is there a timing issue which might justify changing the time frame for implementation of federal requirements?

N/A

6. Will the proposed requirement assist in establishing and maintaining a reasonable margin for accommodation of uncertainty and future growth?

NA

7. Does the proposed requirement establish or maintain reasonable equity in the requirements for various sources? (level the playing field)

The proposed requirements apply only to dry cleaners and dry stores. The effect will be to standardize the waste minimization requirements and thereby level the playing field for all members of the dry cleaning industry. Other industries will not be affected.

8. Would others face increased costs if a more stringent rule is not enacted?

Yes, less stringent rules would increase the likelihood of additional dry cleaner sites becoming contaminated due to improper management of hazardous waste. Contaminated property is a burden to property owners because the value of the property is decreased and property transactions are more difficult.

9. Does the proposed requirement include procedural requirements, reporting or monitoring requirements that are different from applicable federal requirements? If so, Why? What is the "compelling reason" for different procedural, reporting or monitoring requirements?

The proposed requirements address annual reporting to DEQ as required by statute. The compelling reason for the reporting requirement is that it is in statute and is necessary to monitor for hazardous waste, air quality and water quality compliance. Additionally, the Air Quality Division is using annual reporting from dry cleaners as a substitute for issuing permits for the industry. Permits would be more cumbersome and costly to administer.

10. Is demonstrated technology available to comply with the proposed requirement?

Yes, proposed technology is commonly in use throughout the dry cleaning industry. The technology required by statute and defined by this rule includes:

- Dry to dry machines with refrigerated condensers.
- Secondary containment around equipment and containers storing solvent or hazardous waste.
- Closed, direct coupled delivery system for the delivery of perchloroethylene.
- Waste water treatment units.

11. Will the proposed requirement contribute to the prevention of pollution or address a potential problem and represent a more cost effective environmental gain?

Yes, the proposed requirements will provide safer management of hazardous waste produced by the dry cleaning industry and should minimize the number and size of releases to the environment, thus reducing the environmental hazard or extent of contamination and the subsequent cost of cleanups.

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State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal
For
Administrative Rules Applicable to Dry Cleaning Facilities and Dry Stores

Fiscal and Economic Impact Statement

Introduction

DEQ believes the existing dry cleaner statute has two areas of fiscal and economic impact on dry cleaner businesses and individual Oregonians. The rules proposed in this rule package will not change these impacts.

One area of financial impact to dry cleaners and their customers is the cost of paying fees and complying with the waste minimization requirements of the statute. These costs average several thousand dollars per year for each dry cleaner. If these costs are passed on to consumers of dry cleaning services they will result in a price increase of approximately \$0.05 per garment dry cleaned.

The other area of fiscal impact is the benefit to dry cleaners of not having to pay the costs of cleaning up contamination at their sites. The cost to cleanup contamination at a typical dry cleaning facility is between \$100,000 and \$400,000 and may range as high as several million dollars. The cost to cleanup a contaminated site is generally beyond the means of typical dry cleaner.

The dry cleaner statute specifically prohibits discharge of solvent contaminated wastewater to sewer, septic systems and waters of the state and requires EQC to adopt rules for how dry cleaners are to manage wastewater onsite. The dry cleaner statute has the effect of focusing more regulatory attention on the performance of the industry and includes stringent waste minimization requirements. Largely because of the dry cleaner program, dry cleaners are being held to a higher standard of environmental performance than other industries. In exchange for cleanup liability relief, dry cleaners agreed to a higher level of environmental performance.

General Public

Paying fees and complying with the waste minimization requirements of the program cost the average dry cleaner several thousand dollars per year. If these costs are passed on to consumers of

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dry cleaning services they may result in a price increase of approximately \$0.05 per garment dry cleaned.

Small Business

The dry cleaner statute impacts all 330 dry cleaners and 110 dry stores in the state, all of which are small businesses owners. The statute also affects property owners, many of which are also small businesses. The effect of the statute on dry cleaners is that it exempts dry cleaner operators and dry cleaner property owners from having to directly pay for clean up of contamination at their facilities in exchange for paying fees and complying with waste minimization requirements.

The majority of present and past dry cleaning facilities in Oregon are contaminated to some degree with dry cleaner solvents, but very few dry cleaner operators have the resources to pay for even a moderate size cleanup. The dry cleaner program provides dry cleaning property owners and dry cleaning operators the opportunity to have their facility cleaned up using funding from the Dry Cleaner Environmental Response Account. The availability of funding from the Account encourages owners and operators to address contamination and allows the dry cleaning facility to be cleaned up without enforcement from DEQ.

Large Business

Same as small businesses.

Local Governments

Local governments will benefit from the Account because property they own (i.e. sewer lines) that is contaminated with dry cleaning solvent will be expeditiously cleaned up. Local government will also benefit because dry cleaning solvents are now prohibited from being disposed of in the public sewer system, reducing the load on wastewater treatment facilities and decreasing contamination from solvents leaking out of the sewer system.

State Agencies

Depending on the number of owners and operators who submit applications to list inactive sites, DEQ may require temporary staff (0.25 FTE) to process applications, collect fees, and register the new sites. This expense, if necessary, will have a minor effect on the funds available to remediate contamination at contaminated sites. The existing dry cleaner program fund supports three FTE and generates approximately \$700,000 in annual revenue. All revenue is used to manage the program and clean up contaminated dry cleaner sites.

No other state agencies are affected.

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Assumptions

DEQ's prior experience with managing the dry cleaner program served as the basis for formulating these projected fiscal and economic impacts. For the purposes of this planning effort it is estimated that between 300 and 1,300 inactive dry cleaner sites exist. There is no way to estimate how many are contaminated and eligible for the program or the number of applications that will be submitted. However, the \$250 application fee assures resources will be available to process the applications no matter how many are submitted.

Housing Cost Impact Statement The Department has determined that this proposed rulemaking will have no effect on the cost of development of a 6,000 square foot parcel and the construction of a 1,200 square foot detached single family dwelling on that parcel. In cases where the parcel proposed for single-family development is effected by dry cleaning solvent, there is a possibility that remediation of a contaminated dry cleaner site will improve the potential for redevelopment of property.

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State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal
For
Administrative Rules for Dry Cleaning Facilities and Dry Stores

Land Use Evaluation Statement

1. Explain the purpose of the proposed rules.

The purpose of the proposed rules is to:

- Clarify that the dry cleaner property owner's liability protection is dependent on the operator being in compliance with the requirements of the law.
- Specify waste minimization requirements.
- Restrict DEQ from using Dry Cleaner Response Account (Account) to clean up dry cleaning facilities where failure to be in compliance with waste minimization requirements contributed to the release.
- Inactive dry cleaning facilities must apply for listing by DEQ and pay annual fees by January 1, 2003 to be eligible to receive funding from the Account.

2. Do the proposed rules affect existing rules, programs or activities that are considered land use programs in the DEQ State Agency Coordination (SAC) Program?

Yes___ No___ X

a. If yes, identify existing program/rule/activity:

b. If yes, do the existing statewide goal compliance and local plan compatibility procedures adequately cover the proposed rules?

Yes___ No___ (if no, explain):

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c. If no, apply the following criteria to the proposed rules.

Staff should refer to Section III, subsection 2 of the SAC document in completing the evaluation form. Statewide Goal 6 - Air, Water and Land Resources is the primary goal that relates to DEQ authorities. However, other goals may apply such as Goal 5 - Open Spaces, Scenic and Historic Areas, and Natural Resources; Goal 11 - Public Facilities and Services; Goal 16 - Estuarine Resources; and Goal 19 - Ocean Resources. DEQ programs and rules that relate to statewide land use goals are considered land use programs if they are:

1. Specifically referenced in the statewide planning goals; or
2. Reasonably expected to have significant effects on
 - a. resources, objectives or areas identified in the statewide planning goals, or
 - b. present or future land uses identified in acknowledged comprehensive plans.

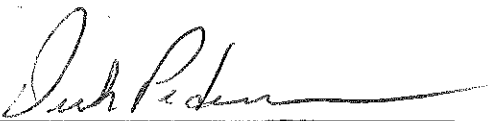
In applying criterion 2 above, two guidelines should be applied to assess land use significance:

- The land use responsibilities of a program/rule/action that involved more than one agency, are considered the responsibilities of the agency with primary authority.
- A determination of land use significance must consider the Department's mandate to protect public health and safety and the environment.

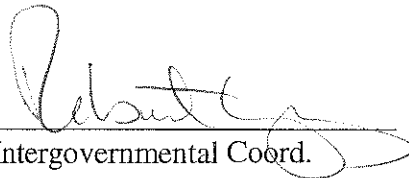
DEQ has previously evaluated cleanup and hazardous waste program activities against these criteria and has determined that environmental cleanup projects and waste minimization activities do not affect land use.

3. If the proposed rules have been determined a land use program under 2. above, but are not subject to existing land use compliance and compatibility procedures, explain the new procedures the Department will use to ensure compliance and compatibility.

The proposed rules do not affect existing rules, programs or activities that are considered land use programs in the DEQ State Agency Coordination (SAC) Program.



Division



Intergovernmental Coord.

8/23/02

Date

State of Oregon
Department of Environmental Quality

Memorandum

Date: September 10, 2002
To: Environmental Quality Commission
From: Stephanie Hallock, Director *S. Hallock*
Subject: Agenda Item (M), Rule Adoption:
Oil and Hazardous Materials Emergency Response Requirements
October 3-4, 2002 EQC Meeting

Department Recommendation The Department recommends the Commission adopt the proposed rule as presented in Attachment A, and repeal OAR 340-108 which will no longer be needed.

Need for Rulemaking The required response to spills of oil and hazardous materials is currently addressed by two different Department rules (OAR 340-108 and OAR 340-047). These rules are in conflict in that they require a different response to the same event. The quantities of material that have to be released to initiate reporting and action no longer match federal rules for the same chemicals. The Legislature has revised the roles and responsibilities of the Department in responding to releases of hazardous materials and oil. Updating and combining two different rules will aid Oregon businesses and individuals by providing clear guidance that is in harmony with parallel federal requirements.

Effect of Rule The proposed rule provides comprehensive and accurate oil and hazardous material spill response guidance in one location. This proposed rule will clarify and update the Department's role and expectations during initial actions involving oil and hazardous materials incidents. The proposed rule addresses:

- Reporting obligations for oil and hazardous material spills for anyone responsible for a spill or release, or threatened spill or release, of oil or hazardous materials.
- Emergency response action requirements for anyone responsible for a spill or release of oil or hazardous materials.
- Roles of the Department during emergencies when acting in concert with other government agencies, citizens, and the responsible persons.
- Required follow up actions by the person responsible for a spill of oil or hazardous material.

Commission Authority The Commission has authority to adopt these rules under ORS 466.625

Stakeholder Involvement The Emergency Response Advisory Committee (ERAC), which includes members of industry, environmental organizations, and representatives of coordinating agencies,

was involved in developing the rule. Membership is fully described in Attachment G. The ERAC was asked to review the proposed rule and make recommendations for improvement. A number of their recommendations were incorporated in the final proposed rule. The ERAC will continue to meet after rule adoption and will assist the Department in rule implementation.

Public Comment

A public comment period from May 1, 2002 to June 21, 2002 was provided and included public hearings in Portland, Bend, Pendleton, Medford and Newport. A total of six people attended the hearings. No oral testimony was provided for the record. Three letters were received during the comment period. Results of public input and the Department's responses are provided in Attachment B. The Hearing Officer's report is provided in Attachment C.

Key Issues

Under the international system of oil spill response, ships that spill oil during transport ("responsible parties") are responsible for starting the cleanup process immediately. More restrictive US, Oregon and Washington laws, however, require response by a "Unified Command," consisting of the state, federal government and the responsible party acting together to clean up spills. The key issue raised by ERAC members and international oil companies (during the public period) was concern that the Department's authority to direct spill response activities placed inappropriate constraints on the process. Examples include; the Department choosing which at risk resources need priority protection, when each element of a response will be mobilized and demobilized, or who speaks for the responsible party in advance of their trained staff arriving on scene.

The Department understands these concerns, which stem largely from greater restrictions in our region than in other parts of the world. DEQ's authority, however, is provided in statute¹ and is not altered in the proposed rules. To avoid problems in response coordination, the Department works closely with the US Coast Guard, EPA and State of Washington to ensure relationships and operations are clearly understood. We also run regular drills with transport ships, barges and shore based facilities to practice and prepare for spill events.

Next Steps

The rules would become effective upon filing with the Secretary of State. The Rule Implementation Plan is available upon request.

Regulated Community Implementing and Assistance Actions

The Department regularly participates in drills and exercises as a way to test plans and improve coordination. Exercises normally include members of the regulated community (including all regulated oil storage terminal facilities) who bring to the exercise their related concerns over resource needs and organizational coordination. At these events, the Department will discuss any relevant changes in the emergency response rule. The Department maintains fact sheets covering spill policies, technical

¹ ORS 468B.395(5)(b) states that it is the duty of the Department to appoint the State on-Scene Coordinator (SOSC) to represent the combined interests of state agencies during the environmental cleanup of an oil or hazardous materials incident.

others during spill events. This guidance is also available to the public through the Department's internet site. Articles about special events of interest and spills are also posted on the Department's internet site. Outreach to communities is provided by State On Scene Coordinators meeting with local and regional responders, community groups and industry.

Staff Implementing and Training Actions

Program staff maintains a current understanding of issues through a weekly peer review of incident management activities.

Attachments

- A. Proposed Rule
 - 1. Summary of Rule
 - 2. Proposed Rule
- B. Public Input and Department's Response
- C. Presiding Officers' Report on Public Hearings
- D. Relationship to Federal Requirements
- E. Fiscal and Economic Impact Statement
- F. Land Use Evaluation Statement
- G. Advisory Committee Membership and Report

Available Upon Request

- 1. Legal Notice of Hearing
- 2. Cover Memorandum from Public Notice
- 3. Written Comment Received
- 4. Rule Implementation Plan

Approved:

Section: _____

Division: _____

Report Prepared by: Ed Wilson

Phone: (503) 229-5373

Attachment A Summary of Rule

The proposed rule updates the list of reportable quantities and defines the incident management methods required by the Department. The proposed rule consolidates emergency response sections of OAR 340-108 and OAR 340-047 into a single rule:

1. Emergency Action.

- Reinforces requirement that a responsible person must act immediately in the event of a spill or release of oil or hazardous materials.
- Explains how responsible persons interact with the Department to cleanup a spill.
- Makes it clear that a responsible person must clean up a spill.

2. Required Reporting.

Updates the procedure for notifying the Department of a reportable release of oil or hazardous material, including defining situations where a report is not required.

3. Reportable Quantities.

Updates the list of reportable quantities for hazardous materials in the rule to match the current federal requirements. The reportable quantity of pesticide residue for which a report is required is made consistent with OAR 340-109. If the pesticide is a listed hazardous substance, the reportable quantity is set by EPA. If the spilled pesticide is not an EPA listed hazardous substance, ORS 466.605 sets the reportable quantity at 10 pounds.

4. Incident Management and Emergency Operations.

Legislative action created the role of State On Scene Coordinator (SOSC) as a counterpart role to the Federal On Scene Coordinator (FOSC) in ORS 468B. The Department assigns an SOSC to represent the Department and direct emergency activities according to Department policies. When coordination with the Department is required, the SOSC must authorize the response activities. During an incident, the management method used to control and direct activities must be consistent with the National Interagency Incident Management System (NIIMS).

Attachment A -- continued
Proposed Rule

DEPARTMENT OF ENVIRONMENTAL QUALITY

DIVISION 142

OIL AND HAZARDOUS MATERIALS EMERGENCY RESPONSE REQUIREMENTS

340-142-0001

Purpose and Scope

- (1) The purpose of these rules is to identify the emergency response actions, reporting obligations, and follow up actions required in response to a spill or release, or threatened spill or release of oil or hazardous materials.
- (2) The rules of this division apply to any person owning or having control over any oil or hazardous material spilled or released or threatening to spill or release, except:

 - (a) Spills or releases or threatened spills or releases from underground heating oil tanks must be reported and remediated in accordance with OAR 340 Division 177.
 - (b) Spills or releases or threatened spills or releases from petroleum underground storage tank (UST) systems must be reported and remediated in accordance with OAR 340-122-0205 through 0360.
- (3) Spills or releases or threatened spills or releases of hazardous waste occurring on the site of a generator must be managed in accordance with both the contingency plan and emergency procedures required by Subpart C and D of 40 CFR 265 and this division.
- (4) Spills or releases or threatened spills or releases of hazardous waste on the site of a hazardous waste treatment, storage or disposal facility must be managed in accordance with the contingency plan and emergency procedures required by Subparts C and D of 40 CFR Part 265, or a permit issued pursuant to OAR Chapter 340, Divisions 105 and 106, and this division.
- (5) Spills or releases of Hazardous Substances regulated by the Hazardous Substance Remedial Action rules, OAR 340-122-0010 to OAR 340-122-0110, must be managed in accordance with this division during the emergency response phase.
- (6) Spills or releases or threatened spills or releases of pesticide or pesticide residue must be managed in accordance with this division during the emergency response phase.
- (7) Spills or releases of chemicals from a dry cleaning facility must be reported and managed as required by ORS 465.505 and this division.

Stat. Auth: ORS 183, ORS 459, ORS 466 & ORS 468B

Stats. Implemented: ORS 466.625

340-142-0005

Definitions

As used in this division unless otherwise specified:

- (1) "Barrel" means 42 U.S. gallons at 60 degrees Fahrenheit.
- (2) "Cleanup" means the containment, collection, removal, treatment or disposal of oil or hazardous material; site restoration; and any investigations, monitoring, surveys, testing and other information gathering required or conducted by the Department.
- (3) "Cleanup Costs" means all costs associated with the cleanup of a spill or release incurred by the state, its political subdivision or any person with written approval from the Department when implementing ORS 466.205, 466.605 to 466.680, ORS 468B.990(3) and (4) and 466.995 or ORS 468B.320.
- (4) "Commission" means the Environmental Quality Commission.
- (5) "Department" means the Department of Environmental Quality.
- (6) "Director" means the Director of the Department of Environmental Quality.
- (7) "Dry cleaning facility" means any active or inactive facility located in this state that is or was engaged in dry cleaning apparel and household fabrics for the general public, and dry stores, other than a:
 - (a) Facility located on a United States military base;
 - (b) Uniform service or linen supply facility;
 - (c) Prison or other penal institution; or
 - (d) Facility engaged in dry cleaning operations only as a dry store and selling less than \$50,000 per year of dry cleaning services.
- (8) "Having Control Over Any Oil or Hazardous Material" includes, but is not limited to using, handling, processing, manufacturing, storing, treating, disposing or transporting oil or hazardous material. During transport this also includes oil or hazardous materials that are cargo, fuel, or a part or fluid in the transporting vessel, vehicle, aircraft, or railcar.
- (9) "Hazardous material" means one of the following:
 - (a) Hazardous waste as defined in ORS 466.005.
 - (b) Radioactive waste as defined in ORS 469.300, radioactive material identified by the Energy Facility Siting Council under ORS 469.605 and radioactive substances as defined in ORS 453.005.

- (c) Communicable disease agents as regulated by the Health Division under ORS chapter 431 and ORS 433.010 to 433.045 and 433.106 to 433.990.
 - (d) Hazardous substances designated by the United States Environmental Protection Agency under section 311 of the Federal Water Pollution Control Act, P.L. 92-500, as amended.
 - (e) Substances listed by the United States Environmental Protection Agency in 40 Code of Federal Regulations Part 302 -- Table 302.4 (List of Hazardous Substances and Reportable Quantities) and amendments.
 - (f) Material regulated as a Chemical Agent under ORS 465.550.
 - (g) Material used as a weapon of mass destruction, or biological weapon.
 - (h) Pesticide residue.
 - (i) Dry cleaning solvent as defined by ORS 465.200(9).
- (10) "Immediately" in relation to a response to a spill means that the actions necessary to protect human health and the environment take priority over all other concerns of the responsible person.
- (11) "Incident Commander" means the individual under the National Interagency Incident Management System (NIIMS) Incident Command System that is responsible for the overall management and control of responding entities. The first emergency responder to arrive at the scene becomes the incident commander until relieved, or the incident is over. The Department is the Lead Agency of the State of Oregon during the cleanup phase of oil and hazardous material incidents, and relieves the Incident Commander when the life safety portion of the emergency response is complete and the focus of the effort is on containment and cleanup of oil or hazardous materials.
- (12) "Initial assessment" includes, but is not limited to, the following tasks:
- (a) verifying the spill location.
 - (b) establishing of the type of incident based on products and conditions.
 - (c) confirming or correcting the reported quantity released or areal extent of the contamination.
 - (d) reporting the efficacy of the initial containment.
 - (e) projecting immediate resource needs to control the release.
 - (f) reporting local knowledge about the probable impacts of the release.
 - (g) providing the Department with information necessary to the Department's preliminary risk evaluation for the incident and characterizing of the release.
 - (h) other tasks as necessary to collect ephemeral data and information ascertainable only at the time of the release.
- (13) "Lead Agency" means the designated representative authority of either the state or federal government. The Department is the Lead Agency of the State of Oregon for oil and hazardous materials incidents. The Environmental Protection Agency and the United States Coast Guard are the Lead agencies of the federal government for oil and hazardous materials incidents. The Lead Agency appoints the State or Federal On-Scene Coordinator.
- (14) "Non-petroleum oils" includes synthetic lubricants, edible oil, vegetable oils, and animal oils.
- (15) "Oils" or "Oil" includes gasoline, crude oil, fuel oil, diesel oil, lubricating oil, sludge, oil refuse and any other petroleum related product.

- (16) "Person" includes, but is not limited to, an individual, trust, firm, joint stock company, corporation, partnership, association, municipal corporation, political subdivision, interstate body, the state and any agency or commission thereof and the federal government and any agency thereof.
- (17) "Pesticide" has the meaning given in ORS 634.006.
- (18) "Pesticide Residue" means a hazardous waste that is generated from pesticide operations and pesticide management, such as, from pesticide use (except household use), manufacturing, repackaging, formulation, bulking and mixing, and spills. Pesticide residue includes, but is not limited to, unused commercial pesticides, tank or container bottoms or sludges, pesticide spray mixture, container rinsings and pesticide equipment washings, and substances generated from pesticide treatment, recycling, disposal, and rinsing spray and pesticide equipment. Pesticide residue does not include pesticide-containing materials that are used according to label instructions, and substances such as, but not limited to treated soil, treated wood, foodstuff, water, vegetation, and treated seeds where pesticides were applied according to label instructions.
- (19) "Plan" as used in this Division, means any spill prevention, contingency, or emergency response document prepared in compliance with the requirements of a federal, state, or local government authority.
- (20) "Reportable quantity" is an amount of oil or hazardous material which if spilled or released, or threatens to spill or release, in quantities equal to or greater than those specified in OAR 340-142-0050 must be reported pursuant to OAR 340-142-0040
- (21) "Respond" or "response" means:
- (a) Actions taken to monitor, assess and evaluate a spill or release or threatened spill or release of oil or hazardous material;
 - (b) First aid, rescue or medical services, and fire suppression; or
 - (c) Containment or other actions appropriate to prevent, minimize or mitigate damage to the public health, safety, welfare or the environment which may result from a spill or release or threatened spill or release if action is not taken.
- (22) "Responsible Person" means any person owning or having control over any oil or hazardous material spilled or released or threatening to spill or release.
- (23) "SOSC" means State On-Scene Coordinator, the state official appointed by the Department when serving as the lead agency to represent the interests of the Department and the State of Oregon in response to an oil or hazardous material spill or release or threatened spill or release. The SOSC coordinates the interests of other state and local agencies within a unified command. Before assuming an incident command role under the National Interagency Incident Management System (NIIMS) Incident Command System, the SOSC may provide technical advice to police, fire and other first responders, and coordinate a cleanup response with state and local agencies.

(24) "Spill or Release" means the discharge, deposit, injection, dumping, spilling, emitting, releasing, leaking or placing of any oil or hazardous material into the air or into or on any land or waters of the state, as defined in 468B.005, except as authorized by a permit issued under ORS Chapter 454, 459, 459A, 468, 468A, 468B or 469, ORS 466.005 to 466.385, 466.990(1) and (2), 466.992 or federal law or while being stored or used for its intended purpose.

(25) "Threatened Spill or Release" means oil or hazardous material is likely to escape or be carried into the air or into or on any land or waters of the state

(26) "Unified Command" means the combined representatives of the Lead Agencies, responsible person, and others with the authority to make ultimate decisions as part of a National Interagency Incident Management System (NIIMS)-style Incident Command System during an emergency response.

(27) "Waters of the State" includes lakes, bays, ponds, impounding reservoirs, springs, wells, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Pacific Ocean within the territorial limits of the State of Oregon and all other bodies of surface or underground waters, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters which do not combine or effect a junction with natural surface or underground waters), which are wholly or partially within or bordering the state or within its jurisdiction.

Stat. Auth: ORS Ch. 183, 459, 466 & 468B

Stats. Implemented: ORS 466.605 & 466.630

Hist.: DEQ 7-1984, f. & ef. 4-26-84; DEQ 8-1985, f. & ef. 7-25-85; DEQ 17-1986, f. & ef. 9-18-86; DEQ 2-1987(Temp), f. & ef. 1-30-87; DEQ 15-1987, f. & ef. 7-28-87; renumbered from OAR 340-108-0002

340-142-0030

Emergency Action

(1) In the event of a spill or release or threatened spill or release of oil or hazardous material, the person owning or having control over the oil or hazardous material must take the following actions:

(a) Immediately implement the applicable spill plan or other contingency plan document prepared in compliance with the requirements of a federal, state, or local government authority, or

(b) If a spill plan or contingency plan covered in section (1)(a) of this rule is not implemented for any reason, immediately take the following actions in the order listed:

(A) Activate alarms or otherwise warn persons in the immediate area; and

(B) Undertake every reasonable method to stop the spill and contain the oil or hazardous material; and

(C) If there is a medical emergency or public safety hazard call 911, where available, or local fire and/or police where 911 does not exist.

(D) Arrange for properly trained and equipped personnel or contractor to stop any continuing release and manage the specific material spilled:

(i) Responsible persons will immediately hire a qualified contractor to respond and manage the spill if the necessary actions are beyond the ability of the responsible person's representatives on-site or the responsible person's own response services will be delayed in arriving at the spill site.

(ii) If the person owning or having control over oil or hazardous material does not, or can not, immediately arrange a response acceptable to the Department, the Department may dispatch a contractor. The Department will seek recovery of all costs incurred by the Department resulting from this action.

(c) In addition to subsection (1)(a) or (1)(b) above, immediately report the spill or release as required by OAR 340-142-0040.

(2) Responsible persons at the site of an oil or hazardous materials spill must make an initial assessment of the spill. Responders must coordinate resource deployment with the Department if the spill is being managed by the Department. This includes responses where the responsible person is coordinating contractor activities with Department guidance. It does not include first responders acting solely under the direction of a local fire department or the Oregon State Fire Marshal.

(3) The responsible person must clean up the spill or release, and take steps to mitigate any threatened spill or release of oil or hazardous material as provided in this division. The Department may, in any case, evaluate the action taken and may require additional action to complete the cleanup and disposal. The costs of such an evaluation are cleanup costs recoverable by the Department from the liable party.

(Comment: 40 CFR 264.1(g) states that a hazardous waste management facility permit is not required for treatment or containment activities taken during immediate response to a spill or release of a hazardous waste.)

Stat. Auth: ORS 183, ORS 459, ORS 466 & ORS 468B

Stats. Implemented: ORS 466.635, ORS 466.625 & ORS 466.645

Hist.: DEQ 7-1984, f. & ef. 4-26-84; DEQ 8-1985, f. & ef. 7-25-85; DEQ 17-1986, f. & ef. 9-18-86; DEQ 15-1987, f. & ef. 7-28-87; renumbered from OAR 340-108-0020.

340-142-0040

Required Reporting

(1) Reporting is required if the amount of oil or hazardous material spilled or released, or threatening to spill or release, exceeds the reportable quantity established in ORS 466.605 or listed in OAR 340-142-0050, or will exceed a reportable quantity in any 24-hour period. Immediately report the spill or release or threatened spill or release to the Oregon Emergency Management Division's Oregon Emergency Response System (OERS) by calling 1-800-452-0311.

(2) No present release of material is needed to qualify as a threatened spill or release. Threatened spills or releases of oil or hazardous material likely to escape or be carried into the air or into or on any land or waters of the state include, but are not limited to:

- (a) The loss of steering or propulsion by a deep draft vessel while it is operating in the Columbia River or Coastal Bay Zones;
- (b) The accidental loss of tow or control during an oil barge transit of the Columbia River or the Coastal Bays Planning Zones;
- (c) The grounding, allision, or collision of vessels, vehicles, or rail cars where reportable quantities of materials are involved and are at risk of release;
- (d) The physical compromise of a containment system or container holding any oil or hazardous material of an amount that could become a reportable quantity when spilled over less than a 24 hour time period.

(3) Reports of spills and releases, or threats of spills and releases, from vessels, containers or tanks must include an estimate of the actual volume of the contents of the source vessel, container or tank.

(4) The spill or release of hazardous materials for which the reportable quantity has been exceeded need not be reported to the Oregon Emergency Response System if all of the following conditions are met:

- (a) It occurs within an engineered containment area with an impervious surface designed to contain such a release;
- (b) It does not penetrate any surface of the containment area;
- (c) The spilled material does not and will not escape the containment;
- (d) It is completely cleaned up in less than 24 hours; and
- (e) The cause of the spill or release is repaired.

Stat. Auth: ORS 465, ORS 466 & ORS 468B

Stats. Implemented: ORS 466.625 & ORS 466.635.

Hist.:DEQ 15-1987, f. & ef. 7-28-87; renumbered from OAR 340-108-0020.

340-142-0050

Reportable Quantities

(1) Spills and releases, or threatened spills or releases of oil or hazardous materials as defined by OAR 340-142-0005(9) in quantities equal to or greater than the following amounts must be reported:

- (a) Any quantity of radioactive material or radioactive waste;
- (b) If spilled or discharged into waters of the state or in a location from which it is likely to escape into waters of the state any quantity of oil that would produce a visible film, sheen, oily slick, oily solids, or coat aquatic life, habitat or property with oil, but excluding normal discharges from properly operating marine engines;
- (c) If spilled on the surface of the land, and not likely to escape into waters of the state, any quantity of oil over one barrel (42 gallons);

- (d) An amount equal to or greater than the quantity listed in 40 CFR Part 302 -- Table 302.4 (List of Hazardous Substances and Reportable Quantities) and amendments adopted prior to July 1, 2002;.
- (e) 10 pounds or more of a hazardous material not otherwise listed as having a different reportable quantity by the Department or the United States Environmental Protection Agency on the list of hazardous substances in 40 CFR 302.4;
- (f) Any quantity of chemical agent (such as nerve agents GB or VX, blister agent HD, etc.);
- (g) 200 pounds (25 gallons) of pesticide residue;
- (h) Any quantity of a material regulated as a Chemical Agent under ORS 465.550;
- (i) Any quantity of a material used as a weapon of mass destruction, or biological weapon;
- (j) One pound (1 cup) or more of dry cleaning solvent, including perchloroethylene, spilled or released outside the designed containment by a dry cleaning facility regulated under ORS 465.505(4).

(2) Spills or releases of products, mixtures or solutions containing oil or hazardous materials for which reporting is required must also be reported if the total quantity of all the hazardous materials in the mixture or solution (in pounds) exceeds the lowest reportable quantity referenced in this rule for any one of the hazardous materials in the mixture or solution. A person may rely upon actual knowledge and readily available information such as material safety data sheets, shipping papers, hazardous waste manifests and container labels, to determine the presence and concentration of hazardous materials in a mixture or solution.

(3) The quantity determination required by section (1) of this rule will be the quantity of oil or hazardous material spilled or released before contacting or mixing with any other material or substance (e.g., with soil, water, sawdust, etc.). In the case of a threatened spill or release, the applicable quantity is the amount of oil or hazardous material in the container or tank from which a spill or release is likely and imminent.

Stat. Auth: ORS 183, ORS 459, ORS 465, ORS 466 & ORS 468B

Stats. Implemented: ORS 465.550, ORS 466.605, ORS 466.625, ORS 466.630 & ORS 466.635

Hist.: DEQ 7-1984, f. & ef. 4-26-84; DEQ 8-1985, f. & ef. 7-25-85; DEQ 17-1986, f. & ef. 9-18-86; DEQ 2-1987(Temp), f. & ef. 1-30-87; DEQ 15-1987, f. & ef. 7-28-87; renumbered from OAR 340-108-0010

340-142-0060

Cleanup Standards

(1) Any person liable for a spill or release or threatened spill or release of oil or hazardous materials must immediately clean up the spill or release or threatened spill or release as required by applicable Department rules. The cleanup of a threatened spill or release must be accomplished by taking immediate repair, corrective or containment action.

(2) Spills and releases of oil or hazardous materials must be cleaned up as completely as possible. The acceptable level of oil or hazardous material that may remain will be determined by the Department in a manner consistent with OAR Chapter 340 Division 122-0010 to 122-0590, or a rule of the Department applying to the specific material being cleaned up.

(3) Spills and releases of hazardous wastes must be cleaned up in accordance with OAR Chapter 340-Division 102 immediately after completion of the emergency actions. Cleanup standards applied will be consistent with those applied to non-emergency cleanups.

(4) Intentional dilution of wastes during a spill response to avoid regulations is prohibited.

Stat. Auth.: ORS 466

Stats. Implemented: ORS 466.625 & ORS 466.645

Hist.: DEQ 17-1986, f. & ef. 9-18-86; renumbered from OAR 340-108-0030

340-142-0070

Approval Required for Use of Chemicals

(1) Use of any material on water to coagulate oil spills, treat oil spills, or disperse oil spills, must be specifically approved by the Department in advance of such use.

(2) Physical removal of oil, and any materials added to the environment during the spill response, will ordinarily be required unless the Department determines the use of chemical dispersants is warranted by extreme fire danger or other unusually hazardous circumstances.

(3) Use of surfactants and treatments to remove oil spill contamination from marine structures and vessels is limited to those materials approved by the Department during a response.

(4) Fire suppressant materials must be used in accordance with the manufacturer's instructions.

Stat. Auth.: ORS 468B

Stats. Implemented: ORS 468B.315

Hist.: DEQ 45, f. 6-15-72, ef. 7-1-72, renumbered from OAR 340-047-0020

340-142-0080

Disposal of recovered spill materials

(1) Spilled oils and oil contaminated materials resulting from control, treatment, and clean up must be handled and disposed of in a manner approved by the Department.

(2) Oils and oily wastes resulting from clean up of an oil spill may be disposed of by reclaiming and recycling, disposing at a disposal site operated under and in accordance with a permit issued pursuant to ORS Chapter 459 or treating and discharging in accordance with a permit issued under ORS 468B.050.

(3) Recovered hazardous materials or hazardous waste must be disposed of in compliance with the rules and statutes applicable to the specific material after the emergency phase of a response is complete. Disposal conducted during the emergency must be consistent with Department rules unless health, safety, and environmental concerns require alternate procedures approved by the Department during the emergency.

(4) Any storage of recovered oil or hazardous materials between its recovery and permanent disposal must be of sufficient capacity and design to provide for complete containment of all recovered materials and contaminated media. Interim storage must also be sited so as to cause the lowest practicable environmental impact, and be fully compatible with all applicable safety requirements.

Stat. Auth.: ORS 449

Stats. Implemented: ORS 468B.315

Hist.: DEQ 45, f. 6-15-72, ef. 7-1-72 ; renumbered from OAR 340-047-0025

340-142-0090

Cleanup Report

The Department may require the responsible person to submit a written report to the Department describing all aspects of the spill and cleanup, and steps taken to prevent a recurrence.

Stat. Auth: ORS 183, ORS 466 & ORS 468B

Stats. Implemented: ORS 466.610, ORS 466.625, ORS 466.645 & ORS 468B.305 - 315

Hist.: DEQ 7-1984, f. & ef. 4-26-84; DEQ 8-1985, f. & ef. 7-25-85; DEQ 17-1986, f. & ef. 9-18-86; Renumbered from 340-108-0021; renumbered from OAR 340-108-0040.

340-142-0100

Sampling/Testing Procedures

All samples used to support and define spill cleanup must be of a type approved by EPA, or the Department, such as those listed in the EPA Office of Solid Waste guidance SW 846. Samples and sampling procedures must be appropriate for the site conditions and materials spilled and be consistent with Department guidance. If the cleanup of spilled materials will be part of a more complex site cleanup, sampling procedures and plans should anticipate greater information needs and be developed and coordinated with the Department.

Stat. Auth: ORS 466, ORS 468B

Stats. Implemented: ORS 466.625

Hist.: DEQ 17-1986, f. & ef. 9-18-86; renumbered from OAR 340-108-0050

340-142-0120

Information Requests, Inspections and Investigations

(1) To determine the need for response to a spill or release or threatened spill or release under ORS 466.605 to 466.680, 466.990(3) and (4), 466.995 (3) and 468.070, and this division, or enforce the provisions of ORS 466.605 to 466.680, 466.990(3) and (4), 466.995 (3) and 468.070, and this division, any person who prepares, manufactures, processes, packages, stores, transports, handles, uses, applies, treats or disposes of oil or hazardous material must, upon the request of the Department:

(a) Furnish information relating to the oil or hazardous material; and

- (b) Permit the Department at all reasonable times to have access to and copy records relating to the type, quantity, storage locations and hazards of the oil or hazardous material.
- (2) To carry out section (1) of this rule, the Department may enter to inspect at reasonable times any establishment or other place where oil or hazardous material is present.
- (3) The Department may conduct an investigation as necessary to identify the person or persons responsible for a spill or release or threatened spill or release. The cost of this investigation is a cleanup cost and recoverable from the liable party or parties.
- (4) ORS 192.501 provides that certain records (i.e., trade secrets) are exempt from disclosure under ORS 192.410 to 192.505 unless the public interest requires disclosure in a particular instance. Persons required to provide information under section (1) of this rule may request that the Department treat some or all of their information as exempt from public disclosure by:
- (a) Making the claim in writing at the time the requested information is first provided to the Department; and
- (b) Providing any written documentation or analysis that supports the claim of exemption from public disclosure at the time the requested information is first provided to the Department.

Stat. Auth: ORS 466 & ORS 468

Stats. Implemented: ORS 192.501 ORS 466.190, ORS 466.610 & ORS 468.095

Hist.: DEQ 17-1986, f. & ef. 9-18-86; renumbered from OAR 340-108-0080

340-142-0130

Incident Management and Emergency Operations

- (1) Any person required by an approved plan or a rule, contract, permit or formal agreement to coordinate activity with the Department during an emergency involving a spill or release of oil or hazardous material must follow a protocol of organization consistent with the National Interagency Incident Management System (NIIMS).
- (2) Any person required by an approved plan or a rule, contract, permit or formal agreement to coordinate activity with the Department during an emergency involving a spill or release of oil or hazardous material must accept the Department as the Lead Agency of the State for cleanup at oil and hazardous materials incidents. The Department will assign a State On-Scene Coordinator (SOSC). The SOSC will represent all state agencies responding to the incident. The SOSC will be the point of contact through which the Director will delegate assignments in an emergency. The SOSC will assume the NIIMS command role from any local Incident Commander when the incident requires state or federal management.
- (3) Any person required to coordinate with the Department must do so regardless of whether or not the Department staff responding to the spill or other emergency is available at the site of the spill or other emergency. The Department may provide services from a remote location. Telephone communication, electronically-transmitted data, facsimile transmission, or other communication with responders constitutes a presence at an incident command location or spill site and carries the full authority of the Department.

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Stat. Auth: ORS 466.625, ORS 468B.010

Stats. Implemented: ORS 466.610, ORS 466.620, and ORS 468B.395.

Hist.:

Attachment B
Public Input and Department's Response
For
Oil and Hazardous Material Emergency Response

**Overview of
Comment Period**

A public comment period from May 1, 2002, to June 21, 2002, was provided and included public hearings in Portland, Bend, Pendleton, Medford, and Newport. A total of six people attended the hearings. No oral comments were provided for the record. Three letters were received during the comment period.

**Written
Comments:**

The following organizations provided written comment to the proposed rule amendments:

Schwabe, Williamson & Wyatt, P.C. ("SWW")
1211 SW 5th Avenue.
Portland, Oregon 97204
(Representing the Maritime Fire Safety Association and Clean Rivers
Cooperative.)

Marine Spill Response Corporation ("MSRC")
1105 13th St.
Everett, Wash. 98201

EQUIVA SERVICES LLC ("EQUIVA")
12700 Northborough
Houston, Texas 77067

**Comments
Received and
Department
Response**

The three letters received in comment on the proposed rules were from entities involved in oil spill response planning under Oregon Revised Statute 468B. As such, they produce detailed plans for responding to and recovering from serious releases of oil to the Pacific Ocean, the Columbia River and the lower Willamette River. Existing spill planning rules are very prescriptive and facilities and ships that operate under them have an understandable concern that new rules covering a range of spill scenarios would produce confusion in the oil spill planning world. The theme of the comments discussed below is generally that the broadness of the definitions and required actions will conflict with plans and requirements already in force. To address this concern, the Department incorporated suggested changes where possible and appropriate. Where that could not be done, we have included additional explanation or changed the proposed wording to avoid confusion.

COMMENT: EQUIVA notes that numerous definitions are broad and suggests they be limited.

RESPONSE: The Department agrees that the definitions are, in many cases, broad. The scope of the rule covers "any person owning or having control over any oil or hazardous material spilled or released..." Many of the definitions EQUIVA objected to are from ORS 466, or ORS 468B. The definitions are broad to include a range of industries beyond those dealing with marine oil spills. As discussed above, we made each definition more restrictive where possible. We believe conflicts with the Oil Spill Planning rules have been addressed.

COMMENT: MSRC notes that the definition of "incident commander" allows for potentially less than fully qualified individuals to be in charge and make decisions on behalf of the government and the responsible person. They suggest not identifying a person in charge until a qualified individual is located.

RESPONSE: The Department agrees that some first responders are unaware of the optimal response strategies in some instances. The National Interagency Incident Management System, Incident Command System (NIIMS-ICS) places initial responders in the incident management role until a more senior (and presumably better qualified) official arrives on scene. Oregon and the Federal Government respond to emergency events using the NIIMS-ICS system. While the problem noted occasionally occurs, the emergency response community and agencies are confident that the system produces generally good results. No changes were made to the proposed rule.

COMMENT: SWW states they think the definition of "initial assessment" used in this rule, without the added inclusions that are applicable to an oil spill contingency plan described in definition (18) of the proposed rule OAR 340-141-0005, will cause a conflict.

RESPONSE: The Department agrees. In the interest of clarity, the full text of the Planning rule definition has been integrated into the proposed Emergency Response rule.

COMMENT: SWW notes the definition of "Plan" is a broad definition. They suggest the more restricted definition similar to the one used in the OAR 340-141 proposed rule be repeated here.

RESPONSE: The Department has modified the definition of plan to restrict it as follows, (19) "Plan" as used in this Division, means any spill prevention, contingency, or emergency response document prepared in compliance with the requirements of a federal, state, or local government authority.

The rule has been further modified to identify the emergency response actions required of those who do not have approved plans.

COMMENT: EQUIVA notes, in relation to Section 0030(1)(b)(D) of the proposed rule, that the availability of an emergency response contractor may be restricted by the same conditions that limit response by the responsible person.

RESPONSE: The Department agrees. At issue in this section of the rule is the ability of a responsible party or their contractor to respond to an event, compared to the ability of the Department to secure a contractor at the scene to begin to control a release. The Department has the authority to respond when the responsible person has not adequately responded irrespective of their reason.

COMMENT: SWW notes that they are concerned the language of the draft proposed rule at "340-0030(1)(a) and (1)(d)" describes what a plan holder is required to include in an approved plan under another draft proposed planning rule (OAR 340-141). This may cause a conflict, or duplication, with regard to hiring contractors and the implementation of a required contingency plan.

RESPONSE: The Department has addressed this comment by reordering the subsections of the proposed Oil and Hazardous Materials Emergency Response Requirements rule to eliminate the perceived conflict. It is now clear that the detailed and proscriptive requirements for response actions apply only to spillers who do not have approved spill plans. The corrected rule section is 0030(1)(b)(D).

COMMENT: SWW notes an objection to proposed draft subsection 0030(1)(b)(D)(ii), alleging that the cost recovery authority of the Department is over stated in the proposed rule.

RESPONSE: The Department understands the suggestion and has revised the last sentence of the proposed rule -0030(1)(b)(D)(ii) to read "The Department will seek recovery of all costs incurred by the Department resulting from this action".

COMMENT: EQUIVA notes the exemption to reporting a spill does not include natural disasters preventing the responsible person from resolving the cause in a timely manner.

RESPONSE: EQUIVA is correct. The Department does not extend an exemption to reporting a release in which the cause of the release can not be corrected. Ongoing releases above a reportable quantity must be reported.

COMMENT: MSRC is concerned that in 0030(2) the Department has set out expectations of the individuals responding to an event without regard to whether or not they are the responsible person for the event.

RESPONSE: The Department agrees and has clarified the proposed rule to indicate the requirements of the responsible person.

COMMENT: EQUIVA questions the need to have section 0040(5), which indicates that inert (non-polluting) materials do not have a reportable quantity. That concept was eliminated in the scope and purpose section of the proposed rule.

RESPONSE: The Department agrees and has removed the unnecessary text from the proposed final rule.

COMMENT: EQUIVA states they do not understand the need to have "reportable quantity" in the rule twice. It appears once as a definition and again in a proposed rule section.

RESPONSE: What is a reportable quantity is defined in statute and through the rule under the authority of the Commission. To address the concerns EQUIVA expressed, the definition of "Reportable Quantity" used in the proposed rule has been reworded to be more clear. Further, a reader is now directed to section 0050 of the rule where materials that are named in statute and those added by the Commission have reporting levels listed only once.

COMMENT: EQUIVA and SWW note that the rule section 0060(2) directs questions of cleanup levels to OAR 340-122, and "net environmental benefit" is not recognized in this rule.

RESPONSE: The Department has intentionally isolated the emergency response rules from those that set cleanup levels. When full removal of a released material cannot be achieved, the Department will make its determination of "how clean is clean" through the Cleanup Program.

COMMENT: EQUIVA notes several times that the rule is not quoting the policies of the federal agencies as published in the Northwest Area Contingency Plan (NACP).

RESPONSE: These rules apply to a broader set of releases and circumstances than are addressed by the NACP. In some cases, more expansive language is necessary to address those broader circumstances. The rules are not in conflict with the NACP, and the Department does not believe they will create confusion.

COMMENT: MSRC and SWW feel the 0090 section of the rule is illogical. The section sets 15 days from the date of an incident for the responsible

person to file a report of the event's cause and cleanup. A longer time is recommended.

RESPONSE: The time within which filing a report is required is in the current rules division 108-0040. Authority to require a report is provided in ORS 466.645, however the number of days allowed to submit written reports is not specified. The Department agrees that 15 days may be unrealistic in some circumstances and has removed a specified interval from the final rule.

COMMENT: EQUIVA suggests it is a dangerous concept in 0130(3) that the Department will manage spills from a remote location, but still with the authority of the Department.

RESPONSE: The Department is by statute the lead state agency for oil and hazardous materials incidents. It is not possible for the Department staff to be on scene at every emergency. To provide the required guidance, the Department has developed a program where communication with the scene is a substitute for staff presence at most small events.

Attachment C
Presiding Officers' Report on Public Hearings

State of Oregon

Department of Environmental Quality

Memorandum

To: Environmental Quality Commission Date: July 22, 2002
From: Ed Wilson, Land Quality Division - Emergency Response Program
Subject: Presiding Officers' Report for Rulemaking Hearings
Title of Proposal: Oil and Hazardous Materials Emergency Response

Overview of Public Hearing Locations, Times and Presiding Officers

Presiding Officer	Ed Wilson	Ed Wilson
Date and Time	June 4, at 4 PM.	June 5, at 4 PM
Place	DEQ HQ, Rm 3A 811 SW 6 th Ave. Portland, OR	Bend DEQ 2146 NE 4 th , #104 Bend, OR
Ed Wilson	Ed Wilson	Ed Wilson
June 6, at 4:00 PM	June 11, at 4 PM.	June 12, at 4 PM
Pendleton DEQ 700 Emigrant Pendleton, OR	Medford DEQ 201 W. Main Street Medford, OR	Lincoln County Courthouse 225 W. Olive St. Newport, OR

Portland Hearing

The rulemaking hearing was convened at 4:00 p.m. and closed at 6:30 p.m. A brief explanation of the rulemaking proposal and hearing procedures was provided. Three people were in attendance: John Sherman, Tosco, Mike Zollitsch, DEQ, and Jack Wylie, DEQ. No one provided oral comment on this rule.

Bend Hearing

The rulemaking hearing was convened at 4:00 PM and closed at 6:30 PM. One person attended, Mike Renz, DEQ. No one provided oral comment on this rule.

Pendleton Hearing

The rulemaking hearing was convened at 4:00 PM and closed at 6:00 PM. One person attended, Dan Duso, DEQ. No one provided oral comment on this rule.

Medford Hearing

The rulemaking hearing was convened at 4:00 PM and closed at 6:30 PM. One person attended, Rai Peterson, DEQ. No one provided oral comment on this rule.

Newport Hearing

The rulemaking hearing was convened at 4:00 PM and closed at 6:00 PM. No one attended.

Attachment D
Relationship to Federal Requirements

Questions to be Answered to Reveal
Potential Justification for Differing from Federal Requirements

1. Are there federal requirements that are applicable to this situation? If so, exactly what are they?

Federal rules in 40 CFR 302.4 and 302.5 define reportable quantities for reporting to the National Response Center. These materials are referenced in the proposed rule. Hazardous materials are listed in 49 CFR 172.101, however the federal list includes some materials over which the Department is not proposing spill or reporting regulation.

2. Are the applicable federal requirements performance based, technology based, or both with the most stringent controlling?

Federal requirements for reportable quantities are based on the potential for environmental damage.

3. Do the applicable federal requirements specifically address the issues that are of concern in Oregon? Was data or information that would reasonably reflect Oregon's concern and situation considered in the federal process that established the federal requirements?

Federal rules in 40 CFR 302.4 and 302.5 define a list of chemicals and reportable quantities. These hazardous substances are a concern for Oregon and other states. In addition to these chemicals, the Oregon Legislature and the Environmental Quality Commission have identified other chemicals which pose a threat to Oregon's environment that are not addressed in federal law. Federal rule makers have not chosen to include Oregon-only hazardous waste materials in the list of federally reportable materials.

4. Will the proposed requirement improve the ability of the regulated community to comply in a more cost effective way by clarifying confusing or potentially conflicting requirements (within or cross-media), increasing certainty, or preventing or reducing the need for costly retrofit to meet more stringent requirements later?

These revised rules simplify the reporting of releases of oil and hazardous materials in Oregon by making reportable quantities the same under both Federal and State rules. Current rules refer to outdated Federal Rules. This greatly simplifies reporting for industry and individuals alike.

5. Is there a timing issue which might justify changing the time frame for implementation of federal requirements?

N/A

6. Will the proposed requirement assist in establishing and maintaining a reasonable margin for accommodation of uncertainty and future growth?

The Emergency Response and Reporting rules are intended to protect current and future public health and safety interests.

7. Does the proposed requirement establish or maintain reasonable equity in the requirements for various sources? (level the playing field)

Yes, this revision does not differentiate among users of chemicals and is consistent with other rules where industry specific standards have been approved.

8. Would others face increased costs if a more stringent rule is not enacted?

These rules are not specific to any individual or business and the costs of noncompliance, reduced compliance, or more stringent requirements would be shared by everyone.

9. Does the proposed requirement include procedural requirements, reporting or monitoring requirements that are different from applicable federal requirements? If so, Why? What is the "compelling reason" for different procedural, reporting or monitoring requirements?

Yes, the reporting of spills to the Oregon Emergency Response System (OERS) is required by Statute (ORS 466.635). Federal law requires reporting only to the National Response Center. In establishing the Oregon Emergency Response System, the Legislature determined that an Oregon-only reporting system was justified by better and more timely response to the release of hazardous materials or oil.

10. Is demonstrated technology available to comply with the proposed requirement?

Yes.

11. Will the proposed requirement contribute to the prevention of pollution or address a potential problem and represent a more cost effective environmental gain?

This revised rule will improve the Department's ability to assist during spill events, both as a result of rapid alerting about the event and with the application of incident management techniques proven to be effective during emergencies.

Attachment E

**State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Rulemaking Proposal
for
Revisions to the Department's Oil and Hazardous Materials Emergency Response rule.
(Chapter 340 Division 142)**

Fiscal and Economic Impact Statement

Introduction

This amendment to the Department's rules will not increase the operating cost of business or individuals. The actions required under the current rules (OAR 340-108) to report and respond to emergency spill situations will generally be carried forward to the amended rules and have the same fiscal impact as currently. The changes in the amended rules will make reporting more similar to the federal spill reporting process and, therefore, more convenient. The amended rules' repeat requirements provided in ORS 466 regarding reporting spills and releases, or threatened spills and threatened releases.

General Public

The spill reporting and response portion of this rule does not have an increased impact on individuals. The amendments do not increase or decrease liability. Individuals familiar with the current federal processes of emergency response and reporting will have no difficulty with the amended rules.

Small Business

Nothing in this rule revision specifically increases the requirements applied to small businesses. Dry Cleaners are not included in the rule revision unless the release exceeds the quantity specifically defined in the rules covering Dry Cleaners. Spills and releases from small storage tanks covered by other Department rules are not covered by these rules. Criteria for the cleanup of spills are not covered in the amended rule.

Large Business

Nothing in this rule revision specifically increases the requirements applied to large businesses.

Local Governments

Nothing in this rule revision specifically increases the requirements applied to local government.

State Agencies

DEQ FTE's - There are no new authorized positions.

Revenues - These revisions do not change revenues

Expenses - The Department will absorb the costs of implementing these rules and related outreach activity.

Other Agencies - There are no changes in these rules adding to the costs of other agencies.

Assumptions

There are no new assumptions related to these revisions. The number of incidents annually is expected to increase in proportion to overall growth of the State.

Housing Cost Impact Statement

The Department has determined that this proposed rulemaking will have no effect on the cost of development of a 6,000 square foot parcel and the construction of a 1,200 square foot detached single family dwelling on that parcel.

Attachment F

**State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Rulemaking Proposal
for
Oil and Hazardous Materials Emergency Response
Land Use Evaluation Statement**

1. Explain the purpose of the proposed rules.

These rule revisions renumber and amend the existing rules. The amendments contain terms and requirements made by the 2001 Legislature. These revisions update Oregon's spill reporting requirements to be consistent with the federal reporting law. The existing requirements in Chapter 340 Division 108 are renumbered in Chapter 340 Division 142 and incorporated with the amendments.

2. Do the proposed rules affect existing rules, programs or activities that are considered land use programs in the DEQ State Agency Coordination (SAC) Program?

Yes No

- a. If yes, identify existing program/rule/activity:

OAR 340-018-0030(5)(1) - State Agency Coordination Program / Land Quality Division / development of emergency response to oil and hazardous material spills regulations.

- b. If yes, do the existing statewide goal compliance and local plan compatibility procedures adequately cover the proposed rules?

Yes No (if no, explain):

Proposed rule revisions have been discussed with local fire department hazardous materials team representatives. Membership on the rule development advisory committee included a county emergency manager. Representatives of the pesticide applicators industry were consulted about developing rules. Members of the regulated agricultural community have been consulted.

4. If the proposed rules have been determined a land use program under 2. above, but are not subject to existing land use compliance and compatibility procedures, explain the new procedures the Department will use to ensure compliance and compatibility.

NA

Intergovernmental Coordinator [signed by Roberta Young] [03/14/02]

Attachment G

State of Oregon DEPARTMENT OF ENVIRONMENTAL QUALITY Advisory Committee Membership and Report

In the summer of 2001, a group of interested parties and stakeholders were invited to become the Emergency Response Advisory Committee (ERAC), part of their duties being to advise the Department on the development of administrative rules covering; Oil Spill Planning, Emergency Response and Reportable Quantities, Ballast Water Management and Reporting, and the amendments to the Enforcement and Compliance rules as related to these topics. ERAC is comprised of 15 appointed members and a variable number of guest members depending on the subject of discussion. The ERAC, chaired by Frank Burg, Trumbull Asphalt, is further organized into a main body and a small workgroup of planning experts to efficiently review material given to them by the Department. The ERAC continues to function as a standing committee offering opinions on a number of environmental issues related to shipping and spill response.

ERAC Membership:

Chair - Frank L. Burg, Trumbull Asphalt
Members - Bob Albers, Office of the State Fire Marshal
John C. Crawford, FOSS Maritime
Dave Godell, Tidewater Barge
Paul Heimowitz, Oregon State University
Jerry Holmes, Chevron Petroleum
Linda Pilky-Jarvis, Washington Department of Ecology
Gail McEwen, Oregon Department of Fish and Wildlife
Doug McGillivray, Multnomah County Emergency Manager
Peter Murphy, Kinder Morgan Energy Partners, LP.
Bob Sallinger, Audubon Society of Portland
Erika Ohm, Oregon Trucking Association
Rick Sloane, Union Pacific RR
Capt. James Townley, Columbia River Steamship Operators
Elizabeth Wainwright, Merchants Exchange

Over the course of the past year the committee reviewed and discussed multiple drafts of the proposed rules. Their interest ranged from style issues to specific technical terminology, and in all areas they provided useful comments as the rule development progressed. Individual members of the ERAC represent an array of perspectives on the subjects covered in the proposed rule. Not all of the members concur on the details of the final draft of the proposed rules, but all are supportive of the collaborative process the Department applied during the development.

Issues Specific to the proposed Oil and Hazardous Materials Emergency Response rules.

- The ERAC discussed the implications of the Department's role in incident command. Committee member Bob Albers, OSFM, presented the issues being discussed for inclusion in the proposed rule to the Hazardous Materials Advisory Group. This group connects the local hazmat response teams to the Office of the State Fire Marshal.
- Associates of ERAC members in the oil spill response business solicited feedback from peers. The result was a letter discussing the proposed rule submitted by EQUIVA.

State of Oregon
Department of Environmental Quality

Memorandum

Date: September 10, 2002
To: Environmental Quality Commission
From: Stephanie Hallock, Director *S. Hallock*
Subject: Agenda Item (N), Rule Adoption: Ballast Water Management
October 3-4, 2002 EQC Meeting

Department Recommendation The Department recommends the Commission adopt the proposed rule for ballast water management as presented in Attachment A.

Need for Rulemaking The 2001 legislature passed a new law requiring ships to exchange ballast water in the ocean prior to discharging any ballast water to Oregon waters. The proposed rule corrects unintended language in the statute. Without the rule, ballast water from certain Asian and Western European ports could be discharged without an exchange. The proposed rule also specifies reporting procedures. Without the rule, reporting procedures are only provided to the regulated community by informal outreach.

Effect of Rule The new law gives the Department outreach, monitoring and enforcement roles in ballast water management, and requires vessels to report their ballast water plans and activities to DEQ. These rules will implement the law and describe a process for vessel operators to meet the new requirements. To do this the rule will:

- Clarify the restrictions placed on the origin of ballast water in ORS 783.620
- Establish procedures for the proper management of ballast water and reporting of ballast water management information as required by ORS 783.630 - 640.
- Identify the content and form to be used in the reporting of ballast water management activities.

Commission Authority The Commission has authority to take action consistent with ORS 783.620 to 783.692.

Stakeholder Involvement An advisory committee was involved in developing the rule. The Emergency Response Advisory Committee (ERAC) membership includes members of the shipping industry and port operations. These same interests were involved in the legislative proposals that became the new law. Local shipping agents associated with the members of the ERAC convey to the inbound ship what Oregon requires them to do with ballast water.

Public Comment A public comment period from April 1, 2002, to May 15, 2002, was provided and included public hearings in Portland, and Coos Bay. A total of thirteen people attended the hearings; oral comments were provided by one individual, and a related follow-up letter was received.

Mike Gaul, manager of the Port of Coos Bay, submitted oral testimony urging the Department to exercise care in adopting rules that potentially put the Port of Coos Bay at an economic disadvantage in relation to other regional ports.

Mike Waldrop, Port of Coos Bay Commission President, submitted written testimony addressing the same points presented by Mr. Gaul.

Results of public input and the Department's responses are provided in Attachment B.

Key Issues Key issues raised during rule development cover:

Vessel Safety

- The new Oregon ballast water legislation and these proposed rules may require vessels to exchange ballast water while at sea. Changing ballast water can cause problems for a vessel related to its stability and ability to steer if the process is not done properly. Extreme weather conditions make ballast water management more dangerous. The proposed rule reinforces the statute and allows an exemption if the exchange of water can not be done safely. Enforcement of the proposed rule based on the submitted reports will include an opportunity for the vessel operator to state the reasons for any non-compliance due to concerns based on safety.

Cost of compliance

- Any additional required actions by operators of vessels will increase the cost of transporting goods. The costs are potentially associated with the added time a vessel may need to spend at sea to accomplish an exchange of ballast water prior to crossing the boundary line described in the law. Cost of compliance was not capped by the legislature.
- The Department is allowing the same form used to meet federal requirements to be used in Oregon. However, there are differences in the state and federal regulations that result in a slightly larger number of vessel operators being covered by the Oregon law than federal law. There will be a nominal cost in the submitting of an Oregon report for the vessel operator who does not file a federal report (approximately \$60, as calculated by the U.S. Coast Guard).

Violations

- The new legislation and the proposed rule include requirements that if

not met result in violations and penalties. The Department intends to follow its standard enforcement policies. There is a legislatively mandated Ballast Water Task Force tasked with evaluating the new law and report to the Legislature in 2003.

Next Steps

DEQ proposes that the rules become effective upon filing with the Secretary of State. The Oregon law covering ballast water management became effective at the beginning of 2002 and at that time the Department in cooperation with Portland State University and the Merchants Exchange of Portland put in place an interim process of reporting and record keeping. In the first six months of the process, changes have been introduced as needed to smoothly collect the required reports. The Department currently provides technical assistance to vessel operators related to compliance with the law and proposed rule.

A rule implementation plan is available upon request. Training of staff is occurring through the interim reporting process. Staff responsible for issuing violations or notices of non-compliance will be trained on procedures as needed.

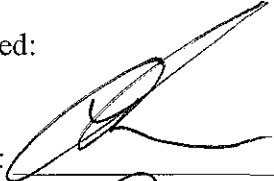
Attachments


- A. Proposed Rule
 - 1. Summary of Rule
 - 2. Proposed Rule
- B. Public Input and Department's Response
- C. Presiding Officer's Report on Public Hearings
- D. Relationship to Federal Requirements
- E. Fiscal and Economic Impact Statement
- F. Land Use Evaluation Statement
- G. Advisory Committee Membership and Report

Available Upon Request

- 1. Legal Notice of Hearing
- 2. Cover Memorandum from Public Notice
- 3. Written Comment Received
- 4. Rule Implementation Plan

Approved:

Section: 

Division: 

Report Prepared by: Ed Wilson

Phone: (503) 229-5373

**Attachment A
Summary of Rule**

The proposed rule will reduce the potential for aquatic nuisance species transported in the ballast water of covered vessels to reach Oregon waters:

1. Requires vessel operators to report to the Department details of their ballast water management practices.

These include:

- Amounts of ballast water carried.
- The ballast water source location.
- The numbers of tanks used for ballast water.
- The port from which the vessel has come.
- The vessel's intent as to the release or retention of ballast water within Oregon waters.
- The geographic locality where the vessel exchanged ballast water during the voyage to Oregon.

2. Identifies the prohibited activities related to ballast water management

The proposed rule specifies that only ballast water obtained from the open ocean or coastal waters between 40 degrees north latitude and 50 degrees north latitude is permitted to be released in Oregon waters. The proposed rule identifies failure to provide ballast water management information in a timely manner prior to entering Oregon waters as a violation. The Department must evaluate the circumstances of the violation to determine a penalty.

3. Clarifies the restrictions placed on the origin of ballast water in ORS 783.620

The proposed rule identifies an ecological area between 40 degrees north latitude and 50 degrees north latitude and extending to an outer boundary 200 miles from the coast of the United States or Canada. The defined area contains unique northwest ecosystems needing protection from non-native invasive species. By adding a western boundary to the requirements in statute, Oregon waters are protected from contamination by ships bringing ballast water from other parts of the globe. This clarification in the rule prevents a misinterpretation of the statute. Without this clarification, the waters of eastern Asia or western Europe between 40 degrees north latitude and 50 degrees north latitude could be presumed to be acceptable for discharging in Oregon.

Attachment A
continued
Proposed Rule

DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION 143
BALLAST WATER MANAGEMENT

340-143-0001

Authority, Purpose, and Scope

(1) The purpose of these rules is to establish procedures for the proper management of ballast water and reporting of ballast water management information as regulated by ORS 783.620 through 783.640, in order to protect the waters of this state from aquatic nuisance species.

(2) These rules apply to all vessels carrying ballast water into the waters of this state from a voyage, except a vessel that:

(a) Discharges ballast water only at the location where the ballast water originated, and the ballast water is not mixed with ballast water from areas other than open sea waters;

(b) Traverses only the internal waters of this state;

(c) Traverses only the territorial sea of the United States and does not enter or depart an Oregon Port or navigate the waters of this state;

(d) Discharges only ballast water that originated from coastal waters between the parallel 40 degrees north latitude and the parallel 50 degrees north latitude.

(3) These rules do not authorize the spilling or releasing of any oil or hazardous materials.

Stat. Auth.: ORS 783

Stats. Implemented: ORS 783.620-783.640

340-143-0005

Definitions

(1) "Aquatic nuisance species" means any species or other viable biological material that enters an ecosystem beyond its historic range.

(2) "Ballast water" means any water and associated sediment used to manipulate the trim and stability of a vessel.

(3) "Cargo vessel" means a self-propelled ship in commerce, other than a tank vessel or a vessel used solely for commercial fish harvesting, of 300 gross tons or more.

(4) "Coastal exchange" means replacing the ballast water taken onboard at a North American coastal port in one of the following manners:

(a) For vessels departing from a North American coastal port located south of the parallel 40 degrees north latitude, and traveling northward into the waters of this state, the replacement of ballast water at sea south of the parallel 40 degrees north latitude; or

(b) For vessels departing from a North American coastal port located north of the parallel 50 degrees north latitude, and traveling southward into the waters of this state, the replacement of ballast water at sea north of the parallel 50 degrees north latitude.

(5) "Coastal waters" means the Pacific Ocean within 200 nautical miles of the United States or Canada.

(6) "Department" means the Department of Environmental Quality.

(7) "Internal waters of this state" means those waters of this state that do not have shared jurisdiction with an adjacent state.

(8) "Oil" means oil, gasoline, crude oil, fuel oil, diesel oil, lubricating oil, oil sludge, oil refuse, and any other petroleum related product.

(9) "Open sea exchange" means a replacement of ballast water that occurs in an area no less than 200 nautical miles from any shore and where the water depth exceeds 2,000 meters.

(10) "Passenger vessel" means a ship of 300 gross tons or more carrying passengers for compensation.

(11) "Port" means any place to which a vessel is bound to anchor or moor.

(12) "Sediment" means any matter that settles out of ballast water.

(13) "Ship" means any boat, ship, vessel, barge or other floating craft of any kind.

(14) "Tank vessel" means a ship that is constructed or adapted to carry oil in bulk as cargo or cargo residue other than:

(a) A vessel carrying oil in drums, barrels or other packages;

(b) A vessel carrying oil as fuel or stores for that vessel; or

(c) An oil spill response barge or vessel.

(15) "Territorial Sea of the United States" means the waters extending three nautical miles seaward from the coastline in conformance with federal law.

(16) "Vessel" means a tank vessel, cargo vessel or passenger vessel.

(17) "Voyage" means any transit by a vessel destined for any Oregon port.

(18) "Waters of this state" means natural waterways including all tidal and non-tidal bays, intermittent streams, constantly flowing streams, lakes, wetlands and other bodies of water in this state, navigable and non-navigable, including that portion of the Pacific Ocean that is within the boundaries of Oregon.

Stat. Auth.: ORS 783

Stats. Implemented: ORS 783.620-783.640

340-143-0010

Ballast water management: Discharge Prohibitions

(1) Discharge of ballast water containing oil or hazardous material into waters of this state is prohibited.

(2) Discharge of any ballast water into waters of this state from vessels carrying ballast water into waters of this state is prohibited, unless:

(a) The vessel discharges ballast water only at the location where the ballast water originated, and the ballast water is not mixed with ballast water or sediment from areas other than open sea water;

(b) The owner or operator of the vessel conducted an open sea exchange, or a coastal exchange, if applicable, of ballast water before entering the waters of this state;

(c) The ballast water discharged originated solely from coastal waters between the parallel 40 degrees north latitude and the parallel 50 degrees north latitude; or

(d) The owner or operator of the vessel did not conduct an open sea exchange or a coastal exchange of ballast water because the owner or operator determined that performing an exchange would threaten the safety or stability of the vessel or the vessel's crew or passengers because of an extraordinary condition, including but not limited to adverse weather, vessel design limitations, or equipment failure.

Stat. Auth.: ORS 783

Stats. Implemented: ORS 783.620-783.640

340-143-0020

Ballast water management: Reporting

(1) An owner or operator of a vessel covered by these rules must report ballast water management information to the Department at least 24 hours before entering waters of this state. The report is required whether or not the owner or operator plans to discharge ballast water into the waters of this state. Compliance with these reporting requirements may be met by sending the report to the Merchants Exchange of Portland.

Agenda Item (N), Rule Adoption: Ballast Water Management

October 3-4, 2002 EQC Meeting

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(2) The report must be submitted on a form acceptable to the U.S. Coast Guard pursuant to 33 CFR Part 151, unless an alternative format is approved in writing by the Department.

(3) If an owner or operator of a vessel alters or plans to alter its ballast water management for any reason after reporting its ballast water management information, the owner or operator must immediately submit an amended ballast water management report.

(4) Any owner or operator who fails to report its ballast water management information as required by this rule must file the required report immediately upon discovering the violation.

Stat. Auth.: ORS 783

Stats. Implemented: ORS 783.620-783.640

Attachment B
Public Input and Department's Response
For
Ballast Water Management

Overview of comment period	A public comment period from April 1, 2002, to May 15, 2002, was provided and included public hearings in Portland and Coos Bay. A total of thirteen people attended the hearings; oral comments were provided by one individual, and a follow-up letter was received.
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Comment received	<p>Mike Gaul, Manager of the Port of Coos Bay, submitted testimony urging the Department to exercise care in adopting rules that potentially put the Port of Coos Bay at an economic disadvantage in relation to other regional ports.</p> <p>Mike Waldrop, Port of Coos Bay Commission President, submitted written testimony addressing the same points presented by Mr. Gaul.</p>
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Response to comment	The current statute does not include any disadvantage to the Port of Coos Bay or any other port. The actions of the Department in relation to this proposed rule do not go beyond provisions of the statute. The Department will address the technical or economic issues in detail if the Ballast Water Task Force explores potential additional restrictions on ballast water management.
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Attachment C
Presiding Officers' Report on Public Hearings

State of Oregon

Department of Environmental Quality

Memorandum

To: Environmental Quality Commission Date: July 22, 2002
From: Ed Wilson, Land Quality Division - Emergency Response Program.
Subject: Presiding Officers' Report for Rulemaking Hearings on May 2nd and 3rd, 2002
Title of Proposal: Ballast Water Management and Reporting

Overview of Public Hearing Locations, Times and Presiding Officers

Presiding Officer	Ed Wilson	Ed Wilson
Date and Time	May 2, at 4 PM.	May 3, at 4 PM
Place	DEQ HQ, Rm 3A 811 SW 6 th Ave. Portland, OR	Port of Coos Bay 125 Central Ave.#300 Coos Bay, OR

Portland Hearing

The rulemaking hearing was convened at 4:10 p.m. and closed at 6:30 p.m. A brief explanation of the rulemaking proposal and hearing procedures was provided. Thirteen people were in attendance: Keith Pensom, (SeaRiver Maritime), Rick Harshfield, (Marine Spill Response Corporation), Brent Way, (Clean Rivers Coop), Liz Wainwright, (Marine Fire Safety Association), Pete Murphy, (Kinder Morgan), Jerry Englehardt, (Kinder Morgan), Mike Zollitsch, (DEQ), Stephen Hill, (V Ships UN), Jon Waldum, (Lasco Shipping Co.). No one provided oral or written comment on this rule.

Coos Bay Hearing

The rulemaking hearing was convened at 4:15 PM and closed at 6:30 PM. There were four people in attendance: Mike Gaul, (Port of Coos Bay), Sen. Ken Messerle, (Oregon Senate), John Lemos, (Sause Brothers Ocean Towing), Ruben Kretzschmar, (DEQ). Mr. Gaul testified.

Attachment D
Relationship to Federal Requirements

Questions to be Answered to Reveal
Potential Justification for Differing from Federal Requirements.

1. Are there federal requirements that are applicable to this situation? If so, exactly what are they?

In 33 CFR 151 the federal government addresses national concerns about controlling invasive species through management of ship's ballast water.

2. Are the applicable federal requirements performance based, technology based, or both with the most stringent controlling?

Federal requirements for ballast water management are based on use of existing technology and equipment currently available to the maritime industry. A final decision on the best environmental approach to use of this equipment has not been made at this time.

3. Do the applicable federal requirements specifically address the issues that are of concern in Oregon? Was data or information that would reasonably reflect Oregon's concern and situation considered in the federal process that established the federal requirements?

No, federal requirements do not include regulation for many categories of vessel transits where ballast water potentially harmful to Oregon has been collected.

Federal ballast water management practices are only guidelines on the Pacific Coast. Vessels are not required by federal law to do an exchange prior to discharging in Oregon. Under ORS 783.620 - .640 management practices are mandatory. An exchange prior to discharging is required by ORS 783.620-.640 if the ballast water source was outside of the Pacific Northwest. In practice, vessels were conducting an exchange prior to ORS 783.620-.640 in compliance with United States Coast Guard and International Maritime Organization guidelines and company policy. The number of transoceanic vessels conducting an open ocean exchange prior to discharging in Oregon waters, solely to meet ORS 783.620-.640 requirements is estimated to be negligible.

Federal rules require a ballast water report from "...All Vessels Equipped with Ballast Water Tanks that Enter Into The Waters Of The United States After Operating Beyond The Exclusive Economic Zone." ORS 783.620-.640 requires reports from all regulated vessels entering the waters of this state. Some vessels operate up and down the Pacific

Coast without leaving the Exclusive Economic Zone, generally 200 miles offshore. For those vessels, a federal report is not required, but an Oregon report is required.

Federal policy development on ballast water management did not take into consideration Oregon concerns. Focus for the federal government has been the Great Lakes area.

4. Will the proposed requirement improve the ability of the regulated community to comply in a more cost effective way by clarifying confusing or potentially conflicting requirements (within or cross-media), increasing certainty, or preventing or reducing the need for costly retrofit to meet more stringent requirements later?

Yes, the rule clarifies a prohibited discharge exemption and specifies where ballast water reports are to be sent.

5. Is there a timing issue which might justify changing the time frame for implementation of federal requirements?

NA

6. Will the proposed requirement assist in establishing and maintaining a reasonable margin for accommodation of uncertainty and future growth?

Yes, this requirement will be compatible with future growth of Oregon. The 2003 Legislature may consider changes based on information gathered during 2002.

7. Does the proposed requirement establish or maintain reasonable equity in the requirements for various sources? (level the playing field)

Yes, the rule brings Oregon in close alignment with California and Washington rules.

8. Would others face increased costs if a more stringent rule is not enacted?

Yes, this rule helps protect Oregon's resources from harmful invasive species, which not only reduce the value of present resources, but also are costly to eradicate.

9. Does the proposed requirement include procedural requirements, reporting or monitoring requirements that are different from applicable federal requirements? If so, Why? What is the "compelling reason" for different procedural, reporting or monitoring requirements?

These rules incorporate the federal reporting system and try to minimize any new reporting by using reporting forms identical to the federal forms. However, the Oregon Legislature expanded the number of situations where ballast water management and reporting is necessary. Oregon will receive reports from vessels that may not be required to notify the federal government of their ballast water activity.

10. Is demonstrated technology available to comply with the proposed requirement?

Yes. Exchange of ballast water at sea is a common maritime industry practice. An exemption from the exchange requirement is provided for in statute when needed for safety reasons.

11. Will the proposed requirement contribute to the prevention of pollution or address a potential problem and represent a more cost effective environmental gain?

Yes, these rules will contribute to the prevention of environmental problems caused by invasive species.

Attachment E

**State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Rulemaking Proposal
for
Ballast Water Management
(Chapter 340 Division 143)**

Fiscal and Economic Impact Statement

Introduction

This rule implements Senate Bill 895, Ballast Water Management which:

- Prohibits discharge of ballast water into waters of this state, except under specified conditions, and
- Requires a ballast water management report from regulated vessels at least 24 hours prior to entry into the state.

Federal ballast water management practices are only guidelines on the Pacific Coast. Vessels are not required by federal law to do an exchange prior to discharging in Oregon. Under SB 895 management practices are mandatory. An exchange prior to discharging is required by SB 895 if the ballast water source was outside of the Pacific Northwest. In practice, vessels were conducting an exchange prior to SB 895 in compliance with United States Coast Guard and International Maritime Organization guidelines and company policy. The number of transoceanic vessels conducting an open ocean exchange prior to discharging in Oregon waters, solely to meet SB 895 requirements is estimated to be negligible.

Federal rules require a ballast water report from "...All Vessels Equipped with Ballast Water Tanks that Enter Into The Waters Of The United States After Operating Beyond The Exclusive Economic Zone." SB 895 requires reports from all regulated vessels entering the waters of this state. Some vessels operate up and down the Pacific Coast without leaving the Exclusive Economic Zone, generally 200 miles offshore. For those vessels, a federal report is not required, but an Oregon report is required.

General Public

These rules will have no fiscal or economic impact on the general public.

Small Business

These rules will have no fiscal or economic impact on small businesses.

Large Business

For reasons given above, the rules will have no fiscal or economic impact on most vessel owners and operators. They are already employing recommended management practices and are reporting consistent with the rule. For an undetermined small number of coastwise-only vessels, the rule mandates reporting not required by federal rules. The United States Coast Guard has "...calculated that it will cost approximately \$60 to submit each report." (66FR58387)

Local Governments

This rule will have no fiscal or economic impact on local governments.

State Agencies

There are no FTE increases or revenues associated with this rule. DEQ may incur expenses in monitoring rule compliance and in enforcement action. Portland State University is collecting reporting data during calendar year 2002. No other state agency is impacted by this rule.

Assumptions

The vast majority of regulated vessels are already following management practices and reporting procedures in compliance with the rule.

Housing Cost Impact Statement

The Department has determined that this proposed rulemaking will have no effect on the cost of development of a 6,000 square foot parcel and the construction of a 1,200 square foot detached single family dwelling on that parcel.

Attachment F
State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal
for
REVISIONS TO OAR 340-143

Land Use Evaluation Statement

1. Explain the purpose of the proposed rules.

Proposed rules cover the management of ballast water carried by large ships using the Columbia River and Oregon's coastal bays. This rule implements Oregon Revised Statute specifying where ballast water exchange must occur and the reporting of that activity to the Department. This law and rule will reduce the likelihood of non-native aquatic nuisance species disrupting the Oregon ecosystems.

2. Do the proposed rules affect existing rules, programs or activities that are considered land use programs in the DEQ State Agency Coordination (SAC) Program?

Yes ___ No X ___

- a. If yes, identify existing program/rule/activity:

- b. If yes, do the existing statewide goal compliance and local plan compatibility procedures adequately cover the proposed rules?

Yes ___ No ___ (if no, explain):

- c. If no, apply the following criteria to the proposed rules.

This new rule is developed based on legislative interest in preventing invasive species from establishing a presence in Oregon waters. The rule and statute do not relate to any Department identified program or activity that significantly affect land use. The expected actions in compliance with this statute and proposed new rule will take place 200 miles off shore in international waters.

In the space below, state if the proposed rules are considered programs affecting land use. State the criteria and reasons for the determination.

Chapter 340 Division 143 rules are intended to modify current practices that occur outside the boundaries of Oregon.

Agenda Item (N), Rule Adoption: Ballast Water Management

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3. If the proposed rules have been determined a land use program under 2. above, but are not subject to existing land use compliance and compatibility procedures, explain the new procedures the Department will use to ensure compliance and compatibility.

NA

Intergovernmental Coordinator

[signed by Roberta Young]

[03/14/02]

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Advisory Committee Membership and Report

In the summer of 2001 a group of interested parties and stakeholders were invited to become the Emergency Response Advisory Committee (ERAC). One of their duties is to advise the Department on the development of administrative rules covering: Oil Spill Planning, Emergency Response and Reportable Quantities, Ballast Water Management, and the amendments to the Enforcement and Compliance rules as related to these topics. The ERAC is comprised of 15 appointed members and a variable number of guest members depending on the subject under discussion. The ERAC, chaired by Frank Burg, Trumbull Asphalt, is further organized into a main body and a small workgroup of planning experts to efficiently review material given to them by the Department. The ERAC continues to function as a standing committee offering opinions on a number of environmental issues related to shipping and spill response.

Members:

Chair - Frank L. Burg, Trumbull Asphalt
Members - Bob Albers, Office of the State Fire Marshal
John C. Crawford, FOSS Maritime
Dave Godell, Tidewater Barge
Paul Heimowitz, Oregon State University
Jerry Holmes, Chevron Petroleum
Linda Pilky-Jarvis, Washington Department of Ecology
Gail McEwen, Oregon Department of Fish and Wildlife
Doug McGillivray, Multnomah County Emergency Manager
Peter Murphy, Kinder Morgan Energy Partners, LP.
Bob Sallinger, Audubon Society of Portland
Erika Ohm, Oregon Trucking Association
Rick Sloane, Union Pacific RR
Capt. James Townley, Columbia River Steamship Operators
Elizabeth Wainwright, Merchants Exchange

Over the course of the past year the committee reviewed and discussed multiple drafts of the proposed rules. Their interest ranged from style issues to specific technical terminology, and in all areas they provided useful comments as the rule development progressed. Individual members of the ERAC represent an array of perspectives on the subjects covered in the proposed rule. Not all of the members concur on the details of the final draft of the proposed rules, but all are supportive of the collaborative process the Department applied during the development.

Advisory Committee Membership and Report
(continued)

Issues Specific to the proposed Ballast Water Management and Reporting Rule.

- At its initial briefing meeting the ERAC was notified that there were several topics the Department would ask their advice on as rules were developed. The ballast water rule was presented as a very short administrative rule that mirrored the new Oregon ballast water law whenever possible. The ERAC was asked about the best, most understandable, language available to create a bare minimum project that both produced the data needed to determine compliance and cause the least disruption possible in the shipping industry.
- The ERAC considered the implications of citing in the rule the name and fax number for the Merchants Exchange when indicating where reports are to be filed as opposed to indicating the Department will receive reports. The committee concluded that if it presented no conflict of interest to the Department, and no contractual status was implied, the information was accurate and useful to regulated vessel operators. The fax number was however deleted due to the possibility of changes in the number that would later on make the rule confusing.
- The ERAC discussed the statutory definitions of ballast water and of sediment. The terms are not independent and the committee felt they caused a potential conflict in the enforcement of the rule. The Department agreed, however the definitions are in statute and it is not within the Department's authority to define the terms differently.
- In addition to discussing the new law with the ERAC, the Department also made the preliminary work group of the Ballast Water Taskforce aware of the rule development process. An issue discussed by the group was the feasibility of exchanges of water at sea in the time it takes to travel to an Oregon port from California locations outside the defined acceptable zone. The attendees at the pre-taskforce meeting included:

Elizabeth Wainwright, Merchants Exchange
Sebastian Degans, Port of Portland
Paul Heimowitz, OSU
Eric Kastner, Cascade Marine Agencies
Mark Sytsma, Portland State University
Capt. Jim Townley, Columbia River Steamship Operators Association
Scott Smith, Washington Department of Fish and Wildlife

CENTER FOR ENVIRONMENTAL EQUITY

610 SW Alder, Suite 1021 Portland, Oregon 97205 (503) 221-1683 nevermined@earthlink.net

STATEMENT OF LAURENCE TUTTLE, CO-DIRECTOR CENTER FOR ENVIRONMENTAL EQUITY

IN SUPPORT OF RESOLUTION AUTHORIZING AND REQUESTING ISSUANCE OF BONDS TO FUND THE ORPHAN SITE CLEANUP PROGRAM

October 4, 2002

The Center for Environmental Equity (CEE) is pleased to support the sale of bonds to fund the orphan-site program. Although the modest size of the fund cannot begin to pay for clean-up costs for known orphan sites, it helps -- particularly in emergency cases. The Formosa Silver Butte Mine in Douglas County, for example, can easily swallow this entire bond sale, and probably one-or-two additional bond sales of similar size. Our research and field investigations reveal at least five additional "Formosa's," and another 50 abandoned-or-inactive mines (AIMs) with cleanup costs of \$500,000 to \$1,000,000.

The effectiveness of the orphan-site fund is maximized if all responsible parties comply fully with the Clean Water Act (CWA). Currently, the Department has chosen not to initiate CWA enforcement actions against the U. S. Forest Service (USFS) and the Bureau of Land Management (BLM) for AIMs sites. As a result, the Orphan Site Program, and ultimately Oregon taxpayers, are assuming federal-agency liabilities for pollution cleanup.

The Department's policy is set out in the following excerpt from Stephanie Hallock's letter to CEE dated August 22, 2002:

"...federal land management agencies must obtain water quality permits, either an NPDES or WPCF permit, only to the extent required by Section 313 of the Clean Water Act. That statute provides that federal agencies must comply with state and federal water quality laws to 'the same extent as a nongovernmental entity.'" As you know, federal land management

¹ The letter omits the relevant part of "Section 313, Federal Facilities Pollution Control."

"(a) Each department, agency, or instrumentality of the executive, legislative, and judicial branches of the Federal Government (1) having jurisdiction over any property or facility, or (2) engaged in any activity resulting, or which might result, in the discharge or runoff of pollutants, and each officer, agency, or employee therefore in the performance of his official duties, shall be subject to, and comply with, all Federal State, interstate, and local requirements, administrative authority, and process and sanctions respecting the control and abatement of water pollution in the same manner, and to the same extent as any nongovernment entity including the payment of reasonable service charges. The preceding sentence shall apply (A) to any requirement whether substantive or procedural (including any recordkeeping or reporting requirement, any requirement respecting permits and any other requirement, whatsoever), (B) to the exercise of any Federal, State, or local administrative authority, and (C) to any process and sanction, whether enforced in Federal, State, or local courts or in any other manner. This subsection shall apply notwithstanding any immunity of such agencies, officers, agents, or employees under any law or rule of law...." [Emphasis added]

agencies generally assert that, for mines located on federal lands that were owned and operated under the 1872 mining law, the federal land management agency is not an 'owner or operator' for purposes of CERCLA or the Clean Water Act. While we recognize that the law is not clear on this point, DEQ does not intend to challenge the federal agencies' position...." [Emphasis added] (Full letter attached.)

CEE will soon ask the federal court to adjudicate USFS and BLM assertions that the CWA is not applicable to AIMs arising from the General Mining Law of 1872. Notwithstanding the outcome of this litigation, **CEE urges the Commission and Department to condition *non-emergency* orphan-site-fund expenditures for federal public-land orphan sites as follows: 1) federal-agency compliance with the CWA, including permits; and, 2) evidence that the Department has initiated CWA enforcement actions if federal agencies fail to comply.²**

² Neither statutory authority nor rule making is necessary to accommodate this policy. CEE also suggests that a budget note setting-out this policy be attached to the Department's 2003-2005 biennial



Oregon

John A. Kitzhaber, M.D., Governor

Department of Environmental Quality

811 SW Sixth Avenue
Portland, OR 97204-1390
(503) 229-5696
TTY (503) 229-6993

August 16, 2002

Larry Tuttle
Center for Environmental Equity
610 SW Alder, Suite 1021
Portland, OR 97205

RE: Almeda and Champion Mines

Dear Mr. Tuttle:

Thank you for your letter of May 9, 2002, concerning Almeda and Champion mines. I apologize for the delay in responding. As you know, before responding, we wanted to discuss your complaint with appropriate DEQ staff and the Oregon Department of Justice.

In your correspondence, you requested DEQ issuance of notices of noncompliance for failure of federal land management agencies and the Phoenix Logging Company to apply for National Pollution Discharge Elimination System (NPDES) and/or Water Pollution Control Facility (WPCF) permits for discharges associated with the historic mine operations referenced above. From various sources, including the recent Oregonian news story, it is also our understanding that you are contemplating litigation to require permits for abandoned and inactive mine sites.

DEQ does not intend to issue the requested notices of noncompliance for the following reasons:

First, federal land management agencies must obtain water quality permits, either an NPDES or WPCF permit, only to the extent required by Section 313 of the Clean Water Act. That statute provides that federal agencies must comply with state and federal water quality laws to "the same extent as a nongovernmental entity." As you know, federal land management agencies generally assert that, for mines located on federal lands that were owned and operated under the 1872 mining law, the federal land management agency is not an "owner or operator" for purposes of CERCLA or the Clean Water Act. While we recognize that the law is not clear on this point, DEQ does not intend to challenge the federal agencies' position. We will, however, ask the U.S. Environmental Protection Agency for their interpretation of the Clean Water Act requirements as they might apply to abandoned and inactive mine sites located on federal lands.

Second, DEQ intends to rely upon state and federal cleanup laws to identify, prioritize and clean up abandoned and inactive mine sites. DEQ believes that state and federal cleanup laws provide the most appropriate and effective mechanism to address abandoned and inactive mine sites. Abandoned and inactive mine site work is a priority for DEQ's cleanup program.

DEQ shares your goal of getting former mine sites addressed as quickly as possible. I believe we are using the best means available to reach that goal. If we can provide any additional information about DEQ's cleanup efforts for abandoned and inactive mine sites, please do not hesitate to contact Keith Andersen, Western Region Community Solutions Section Manager at (541) 686-7838 or Jeff Christensen, DEQ Abandoned Mine Lands Coordinator at (503) 229-6391.

Thank you for your continued interest and concern regarding this important work.

Sincerely,

A handwritten signature in cursive script that reads "Stephanie Hallock".

Stephanie Hallock
Director

cc: Keith Andersen:DEQ:WR:Eugene
Kerri Nelson:DEQ:WR:Eugene
Anne Price:DEQ:HQ:OCE
Mike Llewelyn:DEQ:WQ

State of Oregon
Department of Environmental Quality

Memorandum

Date: September 10, 2002
To: Environmental Quality Commission
From: Stephanie Hallock, Director *S. Hallock*
Subject: Agenda Item O, Action Item: Pollution Control Bonds
October 3-4 2002 EQC Meeting

Proposed Action Adoption of Resolution authorizing Pollution Control bond issuance for Orphan Site Cleanups.

Background The Orphan Site Program relies on the issuance of Pollution Control Bonds to fund cleanups at high priority sites where no responsible parties are available to conduct the work. There are currently about 40 active Orphan projects and 15 newly identified projects that need funding. The Commission has regularly authorized the issuance of Pollution Control Bonds for a number Department programs, including the Orphan Site Program. The Commission previously authorized issuance of Pollution Control Bonds for Orphan Site cleanups in 1992, 1994, 1995, 1998 and 2000.

Key Issues Key issues are:

- Commission authorization is necessary for the State Treasurer to issue \$4 million in Pollution Control Bonds to provide funding for the Department's Orphan Site Cleanup Program. The Commission has the authority to approve the issuance of pollution control bonds and the uses for the bond proceeds under ORS 468.195 through 468.260, 468.426(2) and 286.031 through 286.061.
- The 2001 Legislature provided authorization to the Department to issue the bonds and budget limitation to spend the proceeds for orphan site cleanups.
- The 2001 Legislature appropriated General Funds for 2001-03 biennium debt service payments. In order to reduce the Department's 2001-03 biennium General Fund expenditures, the Department proposed, and the Legislature approved, deferral of the bond issuance so that the first payments will not fall due until the 2003-05 biennium.
- The Department has requested that the Treasurer schedule the sale as soon as possible after October 4, 2002, ensuring that no repayment will fall due until after June 30, 2003. The exact issuance date has not

yet been determined.

EQC Action Alternatives The Commission could decide not to approve the bond issuance. This would result in high priority Orphan sites not being cleaned up. The sale of Pollution Control Bonds is the only mechanism currently available to sufficiently fund the cleanup of Orphan sites.

Department Recommendation The Department recommends the Commission adopt a Resolution authorizing the Department and the State Treasurer to issue and sell not more than \$4 million in original principal amount of State of Oregon General Obligation Pollution Control Bonds to provide funding for the Department's Orphan Site Cleanup Program.

Attachments A. Form of Resolution

Approved:

Section:

Alan D. Kishit

Division:

Rich Ped

Report Prepared By: Jim Roys

Phone: (503) 229-6817

**RESOLUTION AUTHORIZING
AND REQUESTING ISSUANCE OF BONDS**

Section 1. Findings. The Environmental Quality Commission of the State of Oregon finds:

A. The Department of Environmental Quality (the "Department") may be empowered, by resolution of the Environmental Quality Commission, to authorize and request the issuance of general obligation pollution control bonds to fund the Orphan Site Cleanup program;

B. It is now desirable to authorize and request the issuance of general obligation pollution control bonds for this purpose.

C. Oregon Revised Statutes, Section 286.031, provides that all bonds of the State of Oregon shall be issued by the State Treasurer.

Section 2. Resolutions. The Environmental Quality Commission of the State of Oregon hereby resolves:

A. The State Treasurer of the State of Oregon is hereby authorized and requested to issue State of Oregon general obligation pollution control bonds ("Pollution Control Bonds") in amounts which the State Treasurer determines, after consultation with the Director of the Department or the Director's designee, will be sufficient to provide funding for the purposes described in Section 1.A of this resolution, and to pay costs associated with issuing the Pollution Control Bonds. The Pollution Control Bonds may be issued in one or more series at any time during the current biennium, and shall mature, bear interest, be subject to redemption, and otherwise be issued and sold upon the terms established by the State Treasurer after consultation with the Director of the Department or the Director's designee.

B. The Department shall comply with all provisions of the Internal Revenue Code of 1986, as amended (the "Code") which are required for interest on tax-exempt Pollution Control Bonds to be excludable from gross income under the Code, and shall pay any rebates or penalties which may be due to the United States under Section 148 of the Code in connection with the Pollution Control Bonds. The Director of the Department or the Director's designee may, on behalf of the Department, enter into covenants for the benefit of the owners of Pollution Control Bonds to maintain the tax-exempt status of the Pollution Control Bonds.

Section 3. Other Action. The Director of the Department or the Director's designee may, on behalf of the Department, execute any agreements or certificates, and take any other action the Director or the Director's designee determines is desirable to issue and sell the Pollution Control Bonds and to provide funding for the purposes described in this resolution.

Attachment A3
Proposed Rule Revisions

DIVISION 222
STATIONARY SOURCE PLANT SITE EMISSION LIMITS
ERRATA

340-222-0041

Source Specific Annual PSEL

- (1) For sources with potential to emit less than the SER, that request a source specific PSEL, an initial source specific PSEL will be set equal to the Generic PSEL.
- (2) For sources with potential to emit greater than or equal to the SER, an initial source specific PSEL will be set equal to the source's potential to emit or netting basis, whichever is less.
- (3) If an applicant wants an annual PSEL at a rate greater than the netting basis, the applicant must:
 - (a) Demonstrate that the requested increase over the netting basis is less than the SER; or
 - (b) For increases equal to or greater than the SER over the netting basis, but not subject to New Source Review (OAR 340 dDivision 224):
 - (A) If located within, or creating a significant air quality impact as defined in OAR 340-200-0020 upon, an area designated as nonattainment in OAR 340-204-0030, the applicant must obtain offsets and demonstrate a net air quality benefit in accordance with OAR 340-225-0090.
 - (B) If located within, or creating a significant air quality impact as defined in OAR 340-200-0020 upon, an area designated as maintenance in OAR 340-204-0040, the applicant must either
 - (i) Obtain offsets and demonstrate a net air quality benefit in accordance with OAR 340-225-0090;
 - (ii) Obtain an allocation from an available growth allowance in accordance with the applicable maintenance plan; or
 - (iii) ~~For carbon monoxide, demonstrate that the source or modification will not cause or contribute to an air quality impact equal to or greater than 0.5 mg/m³ (8-hour average) and 2 mg/m³ (1-hour average).~~
 - (C) If located within an attainment, **maintenance** or unclassifiable area, the applicant must demonstrate compliance with the NAAQS and PSD increments by conducting an air quality analysis, in accordance with OAR 340-225-0050(1) through and (32) and 340-225-0060.
 - (D) For federal major sources, the applicant must demonstrate compliance with AQRV protection in accordance with OAR 340-225-0050(3) and 340-225-0070.
- (c) For increases equal to or greater than the SER over the netting basis and subject to New Source Review, the applicant must demonstrate that the applicable New Source Review requirements have been satisfied.

Stat. Auth.: ORS 468.020

Stats. Implemented: ORS 468A

Hist.: DEQ 6-2001, f. 6-18-01, cert. ef. 7-1-01

State of Oregon
Department of Environmental Quality

Memorandum

Date: September 10, 2002
To: Environmental Quality Commission
From: Stephanie Hallock, Director *S. Hallock*
Subject: Agenda Item P, Rule Adoption: Grants Pass and Klamath Falls PM₁₀ Maintenance Plans and associated industrial rule revisions. October 3-4, 2002 EQC Meeting

Department Recommendation

The Department recommends the Commission adopt and approve:

1. As a revision of the State Implementation Plan:
 - a. Proposed 10-year PM₁₀ maintenance plans for the communities of Grants Pass and Klamath Falls and redesignation as a maintenance area under Oregon rule and attainment area as a federal designation.
 - b. Associated revisions to the industrial New Source Review (NSR) rules for the Grants Pass and Klamath Falls maintenance areas.
2. Temporary rules to change the effective date for the ozone precursor significant impact distance extension. The temporary rules will have an effective date of January 1, 2003, and will expire 180 days later.

These adoptions include a request to the Environmental Protection Agency (EPA) to redesignate these communities to "attainment" for the PM₁₀ National Ambient Air Quality Standard (NAAQS). The maintenance plan summaries and proposed rule revisions are presented in Attachment A.

Need for Rulemaking

The proposed plans and rules are needed to officially recognize that the communities of Grants Pass and Klamath Falls now meet the PM₁₀ (particulate matter smaller than 10 microns in size) NAAQS. When inhaled, PM₁₀ particles accumulate and aggravate respiratory conditions, particularly asthma. These communities are currently "nonattainment areas" for having violated the PM₁₀ NAAQS over ten years ago. As nonattainment areas, they are subject to stringent industrial growth rules and requirements for transportation projects. Before EPA redesignates these communities to "attainment," ten year maintenance plans are required to show how healthful air quality will be maintained. Since these communities now meet the PM₁₀ NAAQS, the Department is also proposing revisions to its industrial NSR rules to allow some industrial emissions growth.

The temporary rules are needed to allow the Department additional time to

Agenda Item P, Rule Adoption: Grants Pass and Klamath Falls PM₁₀ Maintenance Plans and associated industrial rule revisions.

October 3-4, 2002 EQC Meeting

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evaluate areas of the state where emissions will not affect ozone sensitive areas. See Attachment I for more explanation of the need for this rule.

Effect of Rule

The maintenance plans retain existing programs that reduce emissions from woodstoves and open burning. The plans also accommodate future growth and provide flexibility for some increase in emissions from industrial and transportation sources. The associated New Source Review (NSR) rules are revised to provide some room for industrial emissions growth, without exceeding the PM₁₀ NAAQS. The state will redesignate these areas as maintenance areas. Accompanying these maintenance plans will be a formal request from the Department to EPA to redesignate these communities to attainment.

The temporary provision will delay the effective date of the ozone precursor significant impact distance extension from January 1, 2003 until January 1, 2004. This change will allow the Department time to evaluate the impact of pollutant sources locating outside ozone sensitive areas, and develop an approach for determining which sources do not have an impact on the area. This evaluation is necessary to maintain EPA approval of the New Source Review program. The January 1, 2004 date reverts back to January 1, 2003 if the temporary rule expires before the Commission adopts a permanent rule. If this happens, then a permit being processed does not receive the benefit of the delay.

Commission Authority

The Commission has authority to take this action under Oregon Revised Statutes 468.020, 468A.025 and 183.335

Stakeholder Involvement

The Grants Pass and Klamath Falls Air Quality Advisory Committees met between July 2001 and February 2002, and provided recommendations to the Department that were incorporated into these maintenance plans and associated rules. Committee members represented a cross section of each community and included representatives of large industry, small business, nonprofit organizations, environmental protection, transportation planning, city and county government, health, and the general public.

Advisory Committee Membership Lists are located in Attachment B.

Both cities of Klamath Falls and Grants Pass support this effort. Last year, State Representative Bill Garrard and Mayor Todd Kellstrom of Klamath

Agenda Item P, Rule Adoption: Grants Pass and Klamath Falls PM₁₀ Maintenance Plans and associated industrial rule revisions.

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Falls expressed concern about the continued nonattainment status, and requested the Department move quickly in seeking redesignation. The Department worked with both local committees in developing these maintenance plans and associated NSR rules.

There has been no stakeholder involvement in the proposed temporary provisions of these rules. Stakeholder involvement will be initiated with the permanent rule adoption process.

Public Comment

The public comment period was May 31, 2002 to July 18, 2002. One public hearing was held June 25, 2002 in Klamath Falls, and one hearing was held July 15, 2002 in Grants Pass. A summary of public comments is provided in Attachment C.

A total of nine people attended the hearings. There was no oral testimony at either hearing. Before the close of the public comment period the Department received four written comments.

The City of Klamath Falls and the Southern Oregon Timber Industries Association (SOTIA) both expressed support for the proposed rulemaking. SOTIA strongly supports using Best Available Control Technology rather than Lowest Available Emission Rate Control Technology. The association also supports the exemption from offsets for new and expanding industry as identified in the rule changes.

One person expressed some concern about the Klamath Falls maintenance plan and associated rules, because he believed that PM_{2.5} (particulate matter smaller than 2.5 microns in size) was not adequately addressed under the Klamath Falls PM₁₀ maintenance plan.

The fourth commenter was EPA, who supported the plans and rules, but had suggestions for clarifying certain parts of the proposed NSR rules.

No issues were raised in the public comments that required the Department to modify the maintenance plans. Based on EPA's comments, some clarifying language was added to the proposed NSR rules, however these changes are not considered substantive and DEQ has responded to each comment (see Attachment D).

Agenda Item P, Rule Adoption: Grants Pass and Klamath Falls PM₁₀ Maintenance Plans and associated industrial rule revisions.

October 3-4, 2002 EQC Meeting

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A notice has been mailed to the original notice mailing list announcing the temporary rule addition.

Key Issues

One person commented that the Klamath Falls plan should address PM_{2.5}, and that the city-owned co-generation facility should limit PM_{2.5} emissions. The PM_{2.5} NAAQS was adopted in 1997 with a specific implementation timeline, under which it would be premature to adopt PM_{2.5} emission reduction measures. The Department is currently collecting PM_{2.5} monitoring data around the state, and will be providing EPA with this data for future nonattainment and attainment designations. This proposed rulemaking addresses only PM₁₀ because both communities historically violated this standard and now need to adopt maintenance plans in order to be redesignated to attainment. It should be noted, however, that the PM₁₀ programs (e.g. woodstove and open burning emission reduction strategies) being continued under the maintenance plans will also reduce PM_{2.5} emissions. The emissions from the city-owned co-generation facility are regulated under an air permit issued by the Department. There is no basis for reducing the PM_{2.5} emissions from this facility at this time.

Next Steps

1. The PM₁₀ Maintenance Plans for both Grants Pass and Klamath Falls will be submitted to EPA for approval. EPA has 18 months to approve or disapprove the maintenance plans.
2. Industrial NSR rules associated with these maintenance plans will be submitted to the Secretary of State after adoption. These rules will not be effective until EPA approves the maintenance plans and officially redesignates Grants Pass or Klamath Falls to attainment.
3. The Department will notify these communities upon redesignation. Future references by the Department to Grants Pass and Klamath Falls will be as state PM₁₀ maintenance areas. No additional resources are necessary to implement the plans or rules. The Department will implement the rules with few changes. Guidance identifies any changes for permit writers.
4. The Department will initiate a rulemaking process to make the temporary changes to the ozone precursor significant impact distance effective date permanent. These rules need to be adopted within 180 days of the effective date of the temporary rules.

Agenda Item P, Rule Adoption: Grants Pass and Klamath Falls PM₁₀ Maintenance Plans and associated industrial rule revisions.

October 3-4, 2002 EQC Meeting

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The rule implementation plan is available upon request.

Attachments

- A. Proposed Plans and Rule Revisions
 - 1. Executive Summary of Grants Pass PM₁₀ Maintenance Plan
 - 2. Executive Summary of Klamath Falls PM₁₀ Maintenance Plan
 - 3. Proposed Rule Revisions
 - OAR 340-200
 - OAR 340-204
 - OAR 340-222
 - OAR 340-224
 - OAR 340-225
- B. Advisory Committee Membership List
- C. Presiding Officer's Report on Public Hearings
- D. Department Response to Public Comment
- E. Relationship to Federal Requirements
- F. Fiscal and Economic Impact Statement
- G. Land Use Evaluation Statement
- H. Air Quality Statutory Overview chart
- I. Statement of Need and Justification for Temporary Rules

Available Upon Request

- 1. Legal Notice of Hearing
- 2. Cover Memorandum from Public Notice
- 3. Rule Implementation Plan
- 4. Complete maintenance plan for Grants Pass including emission inventory and associated appendices
- 5. Complete maintenance plan for Klamath Falls including emission inventory and associated appendices

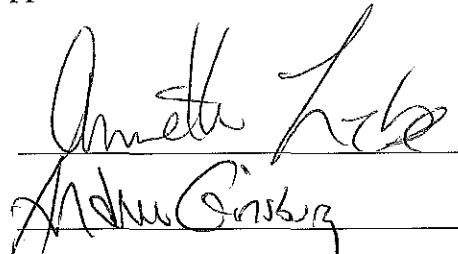
Approved:

Section:

Division:

Report Prepared By: Larry Calkins

Phone: 541-388-6146 extension 245



Attachment A1
Executive Summary of Grants Pass PM₁₀ Maintenance Plan

4.55.0.2 Executive Summary: The Grants Pass PM₁₀ Maintenance Plan

The Grants Pass PM₁₀ nonattainment area has met the national ambient air quality standards for particulate (specifically PM₁₀, particulates, which is particulate matter 10 microns and smaller in diameter), as demonstrated through air quality monitoring data. The PM₁₀ nonattainment area is the Grants Pass Urban Growth Boundary (UGB). In accordance with the 1990 Federal Clean Air Act Amendments, the Department of Environmental Quality has applied to the Environmental Protection Agency (EPA) for redesignation of the Grants Pass UGB from nonattainment to attainment for PM₁₀. Included with the redesignation request is a maintenance plan designed to maintain compliance with the 24-hour PM₁₀ standard through the year 2015. This redesignation request has been approved and maintenance plan has been adopted by the Oregon Environmental Quality Commission and is submitted to EPA as an amendment to the Oregon State Implementation Plan. The Environmental Quality Commission changed the state's PM₁₀ designation for Grants Pass from nonattainment to "maintenance".

This maintenance plan accommodates moderate future growth and provides for continued protection of public health. The plan removes the most stringent emission control requirements for new or expanding major industry (effective upon EPA approval and redesignation), and replaces them with requirements allowing flexibility for industrial growth, while protecting the UGB from future exceedances of the PM₁₀ public health standard. The plan also establishes a PM₁₀ emissions budget for future transportation projects and a contingency plan in case of an exceedance or violation of the PM₁₀ public health standard.

4.55.0.2.1 Background

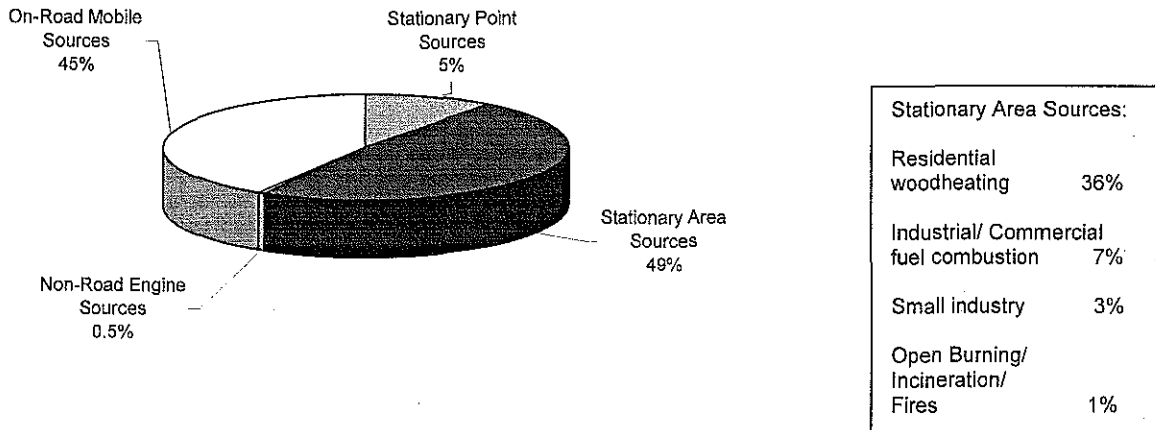
What is PM₁₀?

PM₁₀ includes particulate matter 10 microns in diameter and smaller. When inhaled, these particles accumulate and aggravate respiratory conditions, particularly asthma. Fine particles (2.5 microns and smaller) are associated with heart and lung disease, increased respiratory symptoms and disease, decreased lung function, and premature death. Sensitive groups that appear to be at greatest risk to these effects include the elderly, individuals with cardiopulmonary disease, and children, since their lungs are still developing. Exposure to coarse particles (2.5 to 10 microns) aggravates respiratory conditions such as asthma.

Unhealthy accumulation of PM₁₀ is typically a wintertime problem in the Grants Pass basin, due to cold air inversions that trap emissions near the ground. The two predominant sources of particulates in Grants Pass in the winter are residential wood heating and road dust from motor vehicle travel. Other sources of PM₁₀ emissions in the Grants Pass UGB include large and small industry; combustion engines other than on-road motor vehicles, such as construction equipment; and small contributions from restaurants, fires, and forest burning. Figure 4.55.0.1 shows the contribution of each of these source categories on a worst case winter day in the Grants Pass UGB.

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Executive Summary of Grants Pass PM₁₀ Maintenance Plan

Figure 4.55.0.1: Grants Pass UGB 1996 Worst Case Day Sources of PM₁₀ Emissions



EPA has established the national ambient air quality standard for PM₁₀ at 150 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) for a 24-hour period. This is considered the public health standard. Any value monitored above this level is considered an exceedance of the public health standard. Four exceedances of the 24-hour standard within three calendar years is a violation. If an area violates the standard, EPA designates it a nonattainment area. In 1987, EPA classified Grants Pass as a "Group 1 Planning Area", based on a design value of $171 \mu\text{g}/\text{m}^3$. In 1990, EPA formally designated Grants Pass as a moderate nonattainment area for the 24-hour standard.

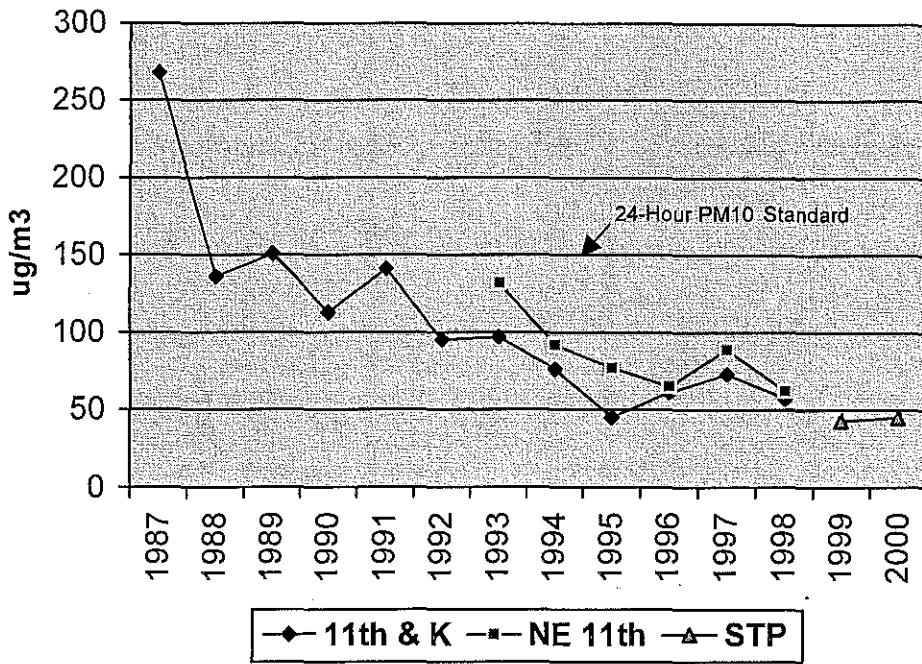
The annual public health standard for PM₁₀ is $50 \mu\text{g}/\text{m}^3$. This standard averages all 24-hour concentrations throughout the year and is a primary health standard in addition to the 24-hour standard. Grants Pass has never violated the annual PM₁₀ standard.

Past PM₁₀ Problem

The highest 24-hour PM₁₀ concentration recorded in Grants Pass occurred in 1987 at a level of $268 \mu\text{g}/\text{m}^3$. Between 1980 and 1987, Grants Pass exceeded the 24-hour public health standard on 16 separate days. By the late 1980's, maximum levels were closer to the public health standard, and there have been no violations in Grants Pass since 1987. There were three exceedances of the 24-hour standard in that year. The trend in PM₁₀ levels, as recorded at the 11th Street monitor in downtown Grants Pass, is downward as shown in Figure 4.55.0.2. Also shown are the levels at the 11th & K monitor, operated from 1993 to 1998, and the Sewage Treatment Plant monitor, the current location of the PM₁₀ monitor in Grants Pass, installed in 1999.

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Executive Summary of Grants Pass PM₁₀ Maintenance Plan

Figure 4.55.0.2 Grants Pass PM₁₀ Trend
Maximum 24-Hr Average, 1987-00



Success in Reducing PM₁₀

Attainment with the PM₁₀ public health standard was achieved in Grants Pass by 1989. Full compliance for the area was achieved by 1990 with no exceedances recorded at the PM₁₀ monitor for three consecutive years. Although the Grants Pass attainment plan was not adopted until 1990, two measures were in effect during the three-year time period when attainment was achieved. The woodstove certification program began in 1983, and industrial controls for veneer dryers and wood-fired boilers went into effect in 1988. Strategies from the attainment plan have contributed to the continuing decline in PM₁₀ levels since 1989. Those strategies include voluntary curtailment of residential woodstove use, a ban on open burning in the Grants Pass city limits, a public education program with a local air quality coordinator, Department of Forestry limitations on prescribed burning in the areas surrounding the UGB, and upgraded controls on industrial emissions.

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Executive Summary of Grants Pass PM₁₀ Maintenance Plan

4.55.0.2.2 Need for Maintenance Plan

Oregon uses the term “maintenance” to distinguish former nonattainment areas from areas that have never violated the health standard. The Grants Pass PM₁₀ maintenance plan is designed to insure compliance with the 24-hour PM₁₀ public health standard through 2015. Projections of future PM₁₀ emissions considered growth in all source categories, as well as technological changes affecting PM₁₀ emissions. This maintenance plan fulfills federal requirements in order to request EPA to redesignate the Grants Pass UGB from nonattainment to attainment for the PM₁₀ 24-hour health standard.

Projections of Future PM₁₀ Levels

Moderate growth is expected in the Grants Pass UGB through 2015. Population is projected to grow a total of 35 percent by 2015 while total miles driven is projected to increase by a total of 45 percent. Emissions from residential wood smoke are expected to decrease due to turnover in woodstoves from higher emitting non-certified stoves to new, low-emitting certified stoves. On balance, PM₁₀ emissions are projected to increase by a total of 15 percent through 2015 (about one percent per year). The projected increase through 2015 is well within the health-based standard.

The average annual growth rates assumed for the Grants Pass Urban Growth Boundary in predicting future levels of PM₁₀ emissions are shown in Table 4.55.0.1.

Table 4.55.0.1
Grants Pass Urban Growth Boundary
Projected Average Annual Growth Rates
1993-2015

Population growth	1.6%
Household growth	1.6%
Employment	1.2%
Vehicle Miles Traveled	1.5%

The growth rates are based on population and employment forecasts from the Grants Pass 1992 technical update to its comprehensive plan, the Oregon Office of Economic Analysis, wood heating surveys, and recommendations from the Grants Pass Air Quality Advisory Committee. The Rogue Valley Council of Governments travel demand model was used to predict growth in motor vehicle travel in Grants Pass. More detail is provided in Appendix D7-6. The maintenance plan analysis applied these factors in order to evaluate future PM₁₀ air quality conditions in Grants Pass through 2015. The plan predicts a small increase in PM₁₀ emissions

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Executive Summary of Grants Pass PM₁₀ Maintenance Plan

and a corresponding ambient concentration of PM₁₀ that is well within the health standard. A comparison of base year emissions to future year emissions is shown in Table 4.55.0.2.

Table 4.55.0.2: PM₁₀ Attainment and Projected Emissions

Grants Pass Urban Growth Boundary
(Pounds PM₁₀/Worst Case Winter Day)

Year	1996	2000	2005	2010	2015
Industry	602	508 ¹	1249 ²	1287	1326
Area Sources (primarily residential wood heating)	5355	5308	5248	5188	5128
On-Road Mobile Sources (primarily road dust)	4871	5149	5498	5846	6194
Non-Road Engines	60	64	68	72	77
Total	10,888	11,029	12,062	12,327	12,725

¹ Decrease between 1996 and 2000 is due to a plant closure.

² 1996-2000 are shown at actual emissions; 2005-2015 are at permitted (or "potential") emissions.

Benefits of the Maintenance Plan

In order for EPA to redesignate the Grants Pass UGB from nonattainment to attainment, EPA must approve an enforceable plan that demonstrates how the area will continue to meet the PM₁₀ standards for a minimum of ten years following EPA's approval of the plan. The primary benefits of an EPA-approved PM₁₀ maintenance plan and redesignation are:

- Assurance that future public health will be protected from adverse impacts of PM₁₀;
- Assurance that regulatory limits, expectations and conditions will be known for at least the next ten years; and
- Flexibility for new or expanding industry.

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Executive Summary of Grants Pass PM₁₀ Maintenance Plan

4.55.0.2.3 Maintenance Plan Development Process

In developing the draft PM₁₀ maintenance plan, DEQ relied primarily on the 1993 PM₁₀ emission inventory, plus the 1999 Grants Pass carbon monoxide maintenance plan and the 1999 PM_{2.5} prevention planning recommendations of the Grants Pass Air Quality Advisory Committee. The Advisory Committee reviewed a draft PM₁₀ maintenance plan and emission inventory and provided final guidance and recommendations. Projections of future emissions are based on growth rates identified in the Grants Pass local comprehensive plan. When an area is designated as attainment (state classification will be "maintenance"), the federal Clean Air Act allows the most stringent requirement for new and expanding industrial sources, Lowest Achievable Emission Rate, to be replaced by the less restrictive Best Achievable Control Technology requirement. Best Achievable Control Technology allows a source to consider cost in selecting the best available controls, while Lowest Achievable Emission Rate does not.

In recognition of the significant improvements in air quality in the UGB, as well as the economic limitations imposed on the UGB because of limits on new industrial emissions, the Grants Pass Air Quality Advisory Committee recommended the following actions:

- Continue strategies currently in place to reduce PM₁₀ emissions in the UGB;
- Replace current emissions control technology requirement for new and expanding industry with Best Available Control Technology;
- Allow an exemption from the requirement to offset new industrial PM₁₀ emission impacts when the impact of the new emissions does not exceed limits defined in this maintenance plan;
- Establish a transportation budget that allows limited air quality impacts from transportation projects;
- Establish a contingency plan that calls for a planning team to identify strategies if future levels approach or exceed the public health standard; and
- If the health standard is violated, reinstate the more stringent requirements for new and expanding industry and eliminate the exemption from the offsets requirement.

4.55.0.2.4 Maintenance Plan Summary

Table 4.55.0.3 summarizes existing emission reducing strategies for PM₁₀ in the Grants Pass UGB and maintenance plan modifications.

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Executive Summary of Grants Pass PM₁₀ Maintenance Plan

Table 4.55.0.3: Summary of Modifications to Existing State Implementation Plan Strategies for PM₁₀ in Grants Pass

1990/91 State Implementation Plan Strategy	Effective Date	EPA Approval Date/ Federal Register notice	Maintenance Plan Modification	EPA Approval Required	Code or Rule
Voluntary Woodstove Curtailment	1991	12/17/93 58FR65934	Expanded area	No - Voluntary	OAR 340-200-0040
Wood stove Certification	1990	6/9/92 57FR24373	No change	No	OAR 340-262-0030
Ban on sale of used woodstoves	1991	6/9/92 57FR24373	No change	No	OAR 340-262-0030
Open Burning revised ventilation index	1991	6/9/92 57FR24373	Expanded area	No - Voluntary	OAR 340-264-0070
Industrial controls on veneer dryers/wood-fired boilers	1989	2/23/93 58FR10972	No change	No	OAR 340-240-0110 OAR 340-240-0120
New Source Review: LAER & offsets	1981	4-27-82 47FR18004	BACT & offsets exemption	Yes, upon redesignation	OAR 340-224-0060
Forest Smoke Management Plan	1990	6-5-96 61FR28531	No change	No	
Transportation Conformity	N/A		Transportation Emissions Budget	Yes, upon redesignation	OAR 340-200-0040

Wood Heating Curtailment

The home wood heating curtailment program has been, and will continue to be, the most effective PM₁₀ emission reduction strategy in the Grants Pass UGB. PM₁₀ emissions from woodstoves and fireplaces are expected to decrease 12 percent by 2015. Woodstove emission control efforts include the emission certification standards for new stoves, change-out programs to encourage removal of non-certified stoves, and a local voluntary curtailment program to reduce wood burning during stagnant weather periods.

Open Burning

The Grants Pass UGB is wholly contained within the Rogue Basin Open Burning Control Area. Within this area, Oregon Administrative Rules prohibit commercial and industrial open burning, and limit domestic open burning to days with adequate ventilation. The City of Grants Pass prohibits open burning year round. The maintenance plan does not propose any changes to the existing open burning regulations.

The reduction in PM₁₀ emissions as a result of the woodstove and open burning programs has been significant and will continue to keep PM₁₀ levels in the UGB well within the public health standard. In 1999, the Josephine County Department of Health and Community Action extended the wood heating curtailment and open burning restrictions to a broader area surrounding the

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UGB as a voluntary program (see section 4.55.2.3 for more details). This voluntary effort will contribute to further reductions of PM₁₀.

Industrial Requirements

The current New Source Review requirement for large new or expanding industry in the UGB is Lowest Achievable Emission Rate control technology and offsets for PM₁₀ emission impacts. This is the most stringent requirement for industrial emission controls. Upon federal redesignation to attainment, the requirement for major new and expanding industry in the UGB will be Best Available Control Technology for PM₁₀ emissions. This is a less stringent requirement in that it allows a source to consider cost in designing and evaluating the best available industrial emission controls. In addition, an exemption from offsets will be available for sources able to demonstrate through modeling that impacts from new emissions will not exceed defined limits (see Section 4.55.3.2.3 for details).

Forest Prescribed Burning

The Oregon Department of Forestry's Smoke Management Plan prevents prescribed burning on poor air quality days on forested lands surrounding the Grants Pass UGB. This program is administered by the Department of Forestry.

PM₁₀ Transportation Emissions Budget

Transportation conformity regulations, required by the 1990 Federal Clean Air Act Amendments, require that motor vehicle emissions budgets be included in the State Implementation Plan. States must evaluate regionally significant transportation projects for impacts on traffic and resulting impacts on PM₁₀ emissions. This maintenance plan establishes an emissions budget that will serve as a benchmark for the approval of regionally significant transportation projects within the Grants Pass UGB (see Section 4.55.3.2.2 for details).

Future Air Quality

The 2015 ambient concentration was projected by applying a ratio of 2015 emissions and base year emissions, to the base year ambient concentration. The 2015 predicted 24-hour ambient concentration is 89 µg/m³. The 2015 ambient concentration easily meets the PM₁₀ federal health standard of 150 µg/m³ and maintenance of the standard is demonstrated.

Contingency Plan Elements

DEQ will convene a planning group if the 24-hour PM₁₀ concentration as measured at the Grants Pass PM₁₀ monitor equals or exceeds 120µg/m³. The planning group will assess the probable emissions event resulting in the elevated PM₁₀ level and consider a range of measures with the potential to reduce emissions. However, if a violation of the 24-hour PM₁₀ standard occurs, Lowest Achievable Emission Rate requirements, plus offsets, for major new industrial sources in the UGB will be restored and the exemption for offsets eliminated.

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Executive Summary of Klamath Falls PM₁₀ Maintenance Plan

4.56.0.2 Executive Summary: The Klamath Falls PM₁₀ Maintenance Plan

The Klamath Falls PM₁₀ Nonattainment Area has met the national ambient air quality standards (NAAQS) for particulates, which is particulate matter ten microns and smaller in diameter (PM₁₀) since 1991 as demonstrated through monitoring data. The PM₁₀ nonattainment area is the Klamath Falls Urban Growth Boundary (UGB). In accordance with the 1990 Federal Clean Air Act Amendments, the Department of Environmental Quality has applied to the Environmental Protection Agency (EPA) to redesignate the Klamath Falls UGB. Included with the redesignation request is a maintenance plan designed to maintain compliance with the 24-hour PM₁₀ and the annual PM₁₀ standards through the year 2015. EPA requires that maintenance plans demonstrate continued compliance for at least ten years following EPA redesignation. This redesignation request has been approved and maintenance plan has been adopted by the Oregon Environmental Quality Commission (EQC) and is submitted to EPA as an amendment to the Oregon State Implementation Plan (SIP).

The maintenance plan accommodates moderate future growth and provides for continued protection of public health. The plan establishes continuing strategies to maintain compliance with the PM₁₀ standards in the Klamath Falls area and provides a PM₁₀ emission allocation (budget) for the future transportation system. Additionally, the plan removes the most stringent emission control requirements for new or expanding major industry in nonattainment areas, replacing them with requirements allowing flexibility for industrial growth while protecting the area from significant air quality degradation. To approve the maintenance plan, EPA requires that permanent and enforceable reductions in emissions to remain in effect throughout the maintenance period.

4.56.0.2.1 Background

What is PM₁₀?

PM₁₀ is particulate matter ten microns and less in size. When inhaled, these particles accumulate and aggravate respiratory conditions, particularly asthma. Fine particulate (PM_{2.5} microns and smaller) are associated with heart and lung disease, increased respiratory symptoms and disease, decreased lung function, and premature death. Sensitive groups that appear to be at greatest risk to these effects include the elderly, individuals with cardiopulmonary disease, and children, since their lungs are still developing. Exposure to coarse particles (2.5 to 10 microns) aggravates respiratory conditions such as asthma.

Unhealthy accumulation of PM₁₀ is typically a wintertime problem in the Klamath Falls basin, due to cold air inversions that trap emissions near the ground. The two predominant sources of particulates in Klamath Falls in the winter are residential wood heating and road dust from motor vehicle travel. Other sources of PM₁₀ emissions include fuel oil use, large and small industry, forest and agricultural fires, open burning

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Executive Summary of Klamath Falls PM₁₀ Maintenance Plan

and other fuel combustion sources. Figures 4.56.0.1 and 4.56.0.1 shows the contribution of each of these source categories in the Klamath Falls UGB.

Figure 4.56.0.1 Klamath Falls UGB 1996 Worst Case Day Emissions

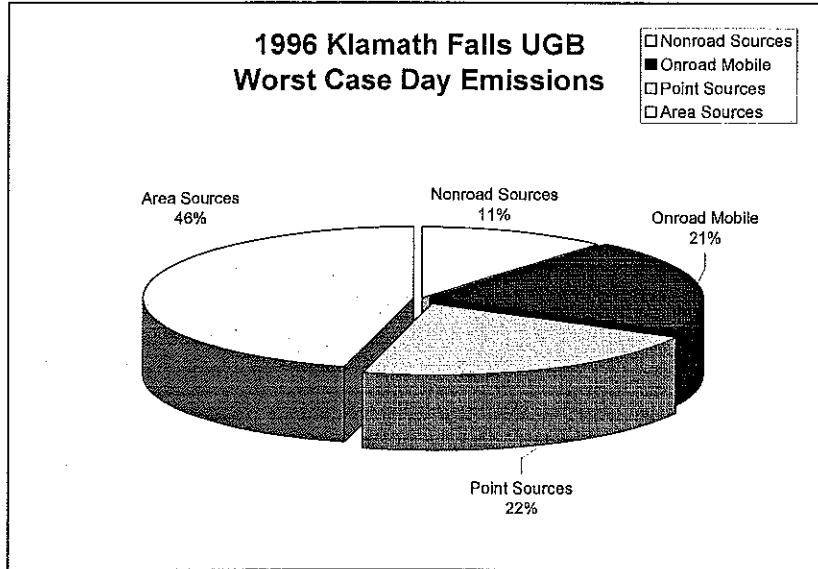
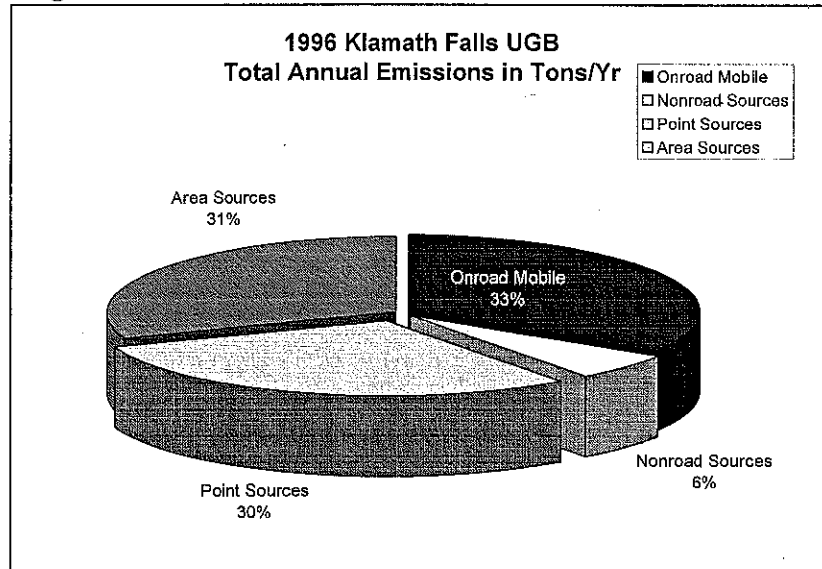


Figure 4.56.0.2 Klamath Falls UGB 1996 Annual Emissions



EPA has established health based National Ambient Air Quality Standards (NAAQS) for PM₁₀ at 150 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) 24-hour average and 50 $\mu\text{g}/\text{m}^3$ for the annual average. Any PM₁₀ concentration monitored above these levels is considered an exceedance¹ of the public health standard. Normally, four exceedances of the 24-hour

¹ Concentrations at or below 154.4 $\mu\text{g}/\text{m}^3$ round down to 150 $\mu\text{g}/\text{m}^3$ or less and are considered in compliance.

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Executive Summary of Klamath Falls PM₁₀ Maintenance Plan

standard within three calendar years is a violation. Any annual exceedance is a violation of the annual standard. If an area is in violation of the standard, EPA designates it as a nonattainment area. Experience has demonstrated that the 24-hour average is more likely to be exceeded than the annual average.

Past PM₁₀ Problems and Current Attainment of Standards

The Klamath Falls area violated both the federal 24-hour PM₁₀ standard of 150 µg.m³ and the annual PM₁₀ standard of 50 µg/m³ in the late 1980s. The highest recorded 24-hour average PM₁₀ concentration was 792 µg/m³ recorded on January 25, 1988 at Peterson School in the southeast part of the Urban Growth Boundary. Significant woodstove related PM₁₀ pollution occurred during this period due to wintertime inversions and high emissions.

There were 22 recorded daily exceedances in 1987; 28 exceedances in 1988; and 45 recorded exceedances in 1989. In 1990 the number of daily exceedances dropped to 18 and in 1991 there were only 7. The last recorded exceedance of the standard was 196 µg/m³ on January 22, 1991 (see Figure 4.56.0-3 and 4.56.0-4). The last 24-hour average violation of the standard occurred in 1991. The period 1989-94 was a transitional period when significant reductions in woodstove emissions occurred. Since 1994, peak PM₁₀ concentrations have been significantly below the standards.

The highest annual average PM₁₀ concentration was 73.5 µg/m³ in 1987. The annual average dropped steadily until 1990 where it was below the standard at 46.2 µg/m³. The annual average has remained below the annual standard and in 2000 is at less than half the standard. The ten-year trend in ambient PM₁₀ concentrations as measured at the reference monitor (Peterson School) is shown below in Figures 4.54.0-3, and 4.54.0-4.

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Figure 4.56.0-3:
Highest PM₁₀ 24-Hour Concentrations Since Last Exceedance

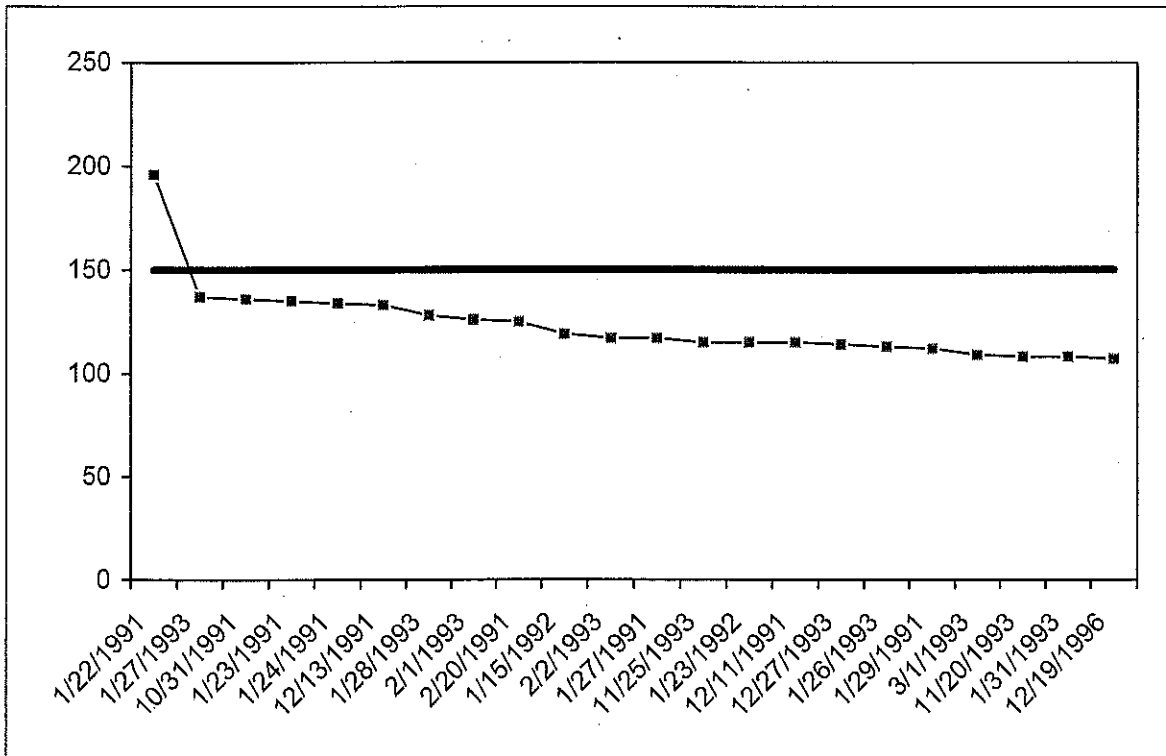
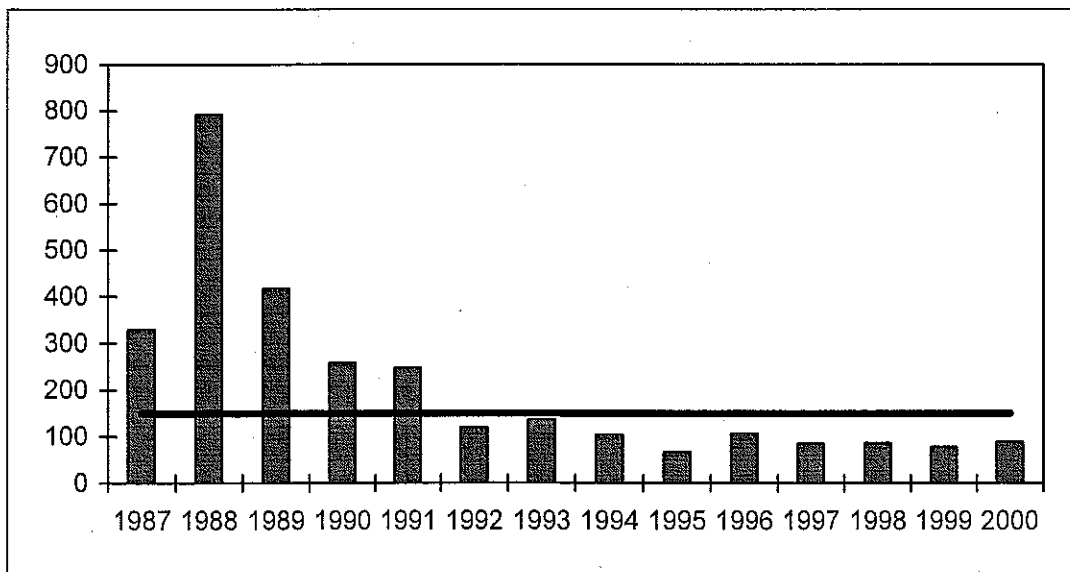
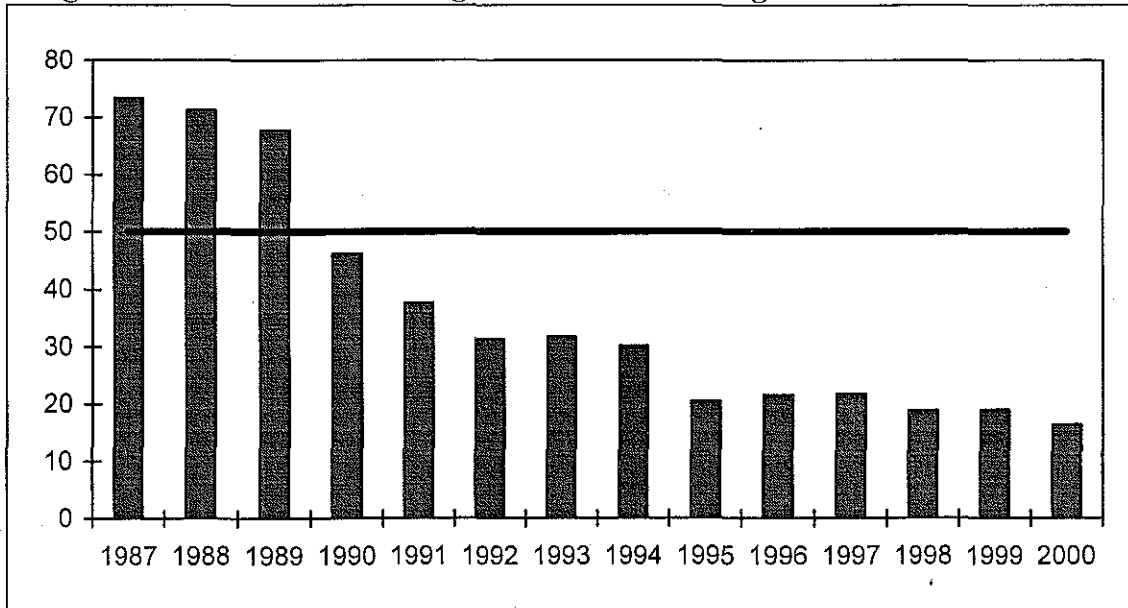


Figure 4.56.0-4: Klamath Falls PM₁₀ Trend in Micrograms per Cubic Meter Maximum 24-Hr, 1987-2000



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Figure 4.56.0-5: Annual Average 1987-2000 in Micrograms Per Cubic Meter



Success in Reducing PM₁₀

Particulate matter (PM₁₀) emission reduction strategies have been successful in bringing Klamath Falls into attainment with the 24-hour and the annual standards. Compliance with PM₁₀ standards was achieved at the Peterson School site by 1994 when there were no exceedances of the standard for three years. Since then, PM₁₀ concentrations have remained below both standards. Emission reduction strategies primarily responsible for compliance include:

- A statewide Woodstove Certification Program;
- A Woodstove Removal and Heating source replacement program for low income households;
- A Klamath County mandatory woodstove and open burning curtailment ordinance;
- Winter road sanding controls;
- Public education programs;
- Industrial - Significant Emission Rate requirement; and
- Forestry slash burning emission reduction and restrictions.

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4.56.0.2.2 *Need for Maintenance Plan*

Oregon uses the term “maintenance” to distinguish former nonattainment areas from areas that have never violated the health standard. The Klamath Falls PM₁₀ maintenance plan is designed to insure continued compliance with both the 24-hour and the annual PM₁₀ standards through at least 2015. In estimating future PM₁₀ emissions, growth was considered in all source categories, as well as technological changes affecting PM₁₀ emissions. This maintenance plan fulfills federal requirements in order to request EPA to redesignate the Klamath Falls UGB from nonattainment to attainment for the PM₁₀ 24-hour and annual health standards.

Projections of Future PM₁₀ Levels

Moderate growth is expected in Klamath Falls UGB through 2015. Population, housing, and employment are expected to increase gradually through this period. Growth estimates are also consistent with forecasts developed by the Oregon Office of Economic Analysis. The 1996 population estimated in Klamath Falls UGB was 40,365 and is expected to grow to approximately 50,219 by 2015 (1.2 percent per year compounded average growth rate). Population, housing and employment forecasts were used in the Oregon Department of Transportation’s latest travel demand model to predict growth in motor vehicle travel in the Klamath Falls area. Emissions from residential wood smoke are expected to decrease due to turnover in woodstoves from higher-emitting, non-certified stoves to new, low emitting certified stoves. Growth rates used to forecast future PM₁₀ emissions are shown in Table 4.56.0-1.

Table 4.56.0-1: Annual Average Growth Rates (1996-2015)
Klamath Falls Urban Growth Boundary

Population Growth	1.2%/yr
Household Growth	1.1%/yr
Avg. Non-Industrial Employment	0.7%/yr
Industrial Employment	1.3%/yr
Vehicle Miles Traveled	1.8%/yr

Estimated compound rates

The maintenance plan analysis applied these growth rates to predict future PM₁₀ air quality conditions in Klamath Falls through 2015. Figures 4.56.0-6 and 4.56.0-7 compare the 1996 estimated emissions against the projected emissions through 2015. Although there is an increase in emissions over the years, there is no emission standard associated with pounds per day or tons per year for comparison. Therefore, ambient concentrations are projected using anticipated emissions to compare to the health standard, an ambient concentration (see table 4.56.0-2).

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Figure 4.56.0-6: Klamath Falls PM₁₀ Maintenance Analysis (lbs/day)

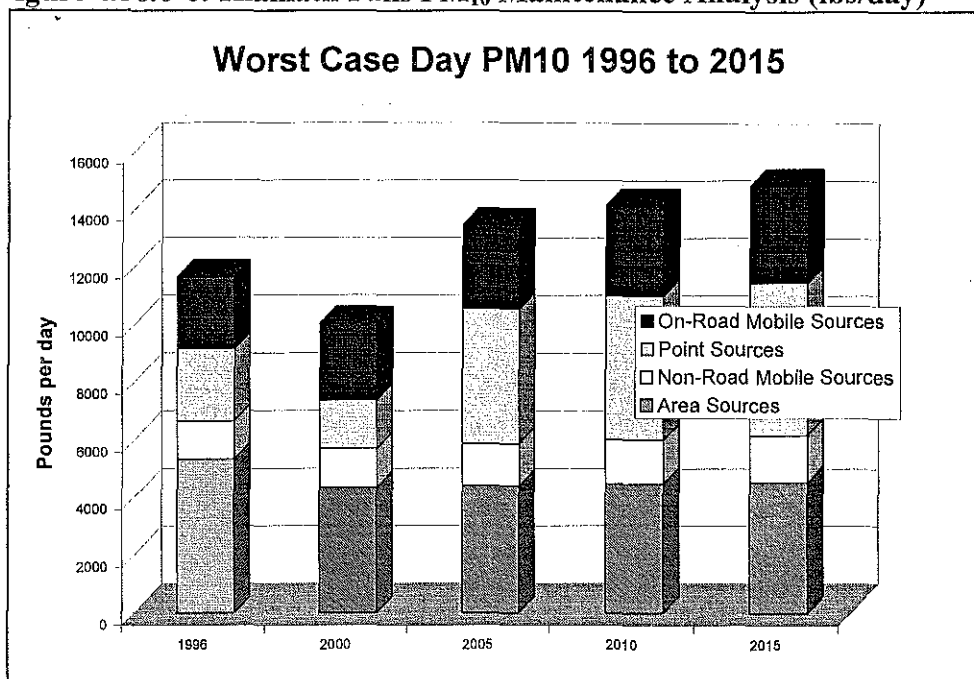
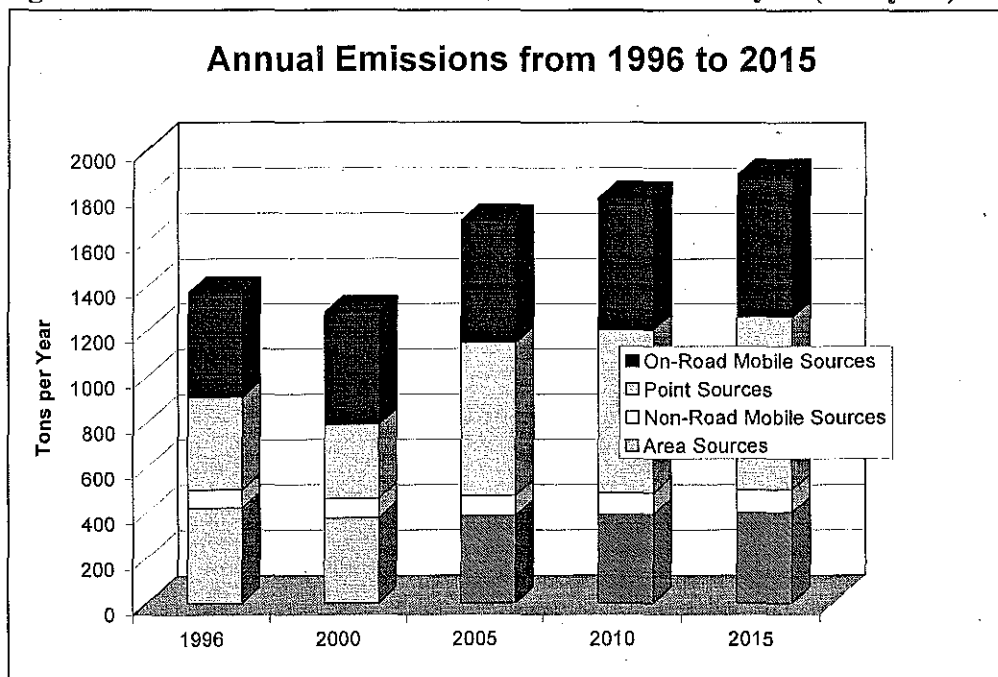


Figure 4.56.0-7: Klamath Falls PM₁₀ Maintenance Analysis (tons/year)



The analysis shown in Table 4.56.0-2 demonstrates continued compliance with standards through those same years. The result is an increase in PM₁₀ emissions from 1996 and a slight increase in the predicted ambient concentrations through 2015. The predicted

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ambient concentration of PM₁₀ will remain below the national health-based standard. The estimated ambient concentrations for both the annual and the worst case day are based on a ratio of the 1996 ambient concentration to the projected emission inventory for each year through 2015.

Table 4.56.0-2 PM₁₀ Attainment Demonstration²

YEAR	1996	2000	2005	2010	2015	Standard
Total Emissions from Inventory – Annual (tons per year)	1372	1287	1744	1850	1956	
Estimated Ambient Concentration	21.0 µg/m ³	20.3 µg/m ³	24.1 µg/m ³	24.9 µg/m ³	25.8 µg/m ³	50 µg/m ³
Total Emissions from Inventory – Worst Case Day (lbs per day)	11,654	10,314	13,751	14,474	15,198	
Estimated Worst Case Day Ambient Concentration	95.2 µg/m ³	88.0 µg/m ³	106.5 µg/m ³	110.4 µg/m ³	114.3 µg/m ³	150 µg/m ³

Benefits of a Maintenance Plan

In order for EPA to redesignate the Klamath Falls UGB from nonattainment to attainment, EPA must approve an enforceable plan. The plan must demonstrate that the area will continue to meet the PM₁₀ standards for a minimum of ten years following EPA’s approval of the plan. The primary benefits of an EPA-approved PM₁₀ maintenance plan and redesignation are:

- Assurance that future public health will be protected from adverse impacts of PM₁₀;
- Assurance that regulatory limits, expectations and conditions will be known for at least the next ten years; and
- Flexibility for new and expanding industry.

4.56.0.2.3 Maintenance Plan Development Process

In developing the draft PM₁₀ maintenance plan, DEQ relied primarily on the 1996 PM₁₀ emission inventory, the involvement of the Klamath Falls Air Quality Plan Advisory Committee and the Oregon Department of Transportation (ODOT). The Advisory Committee reviewed a draft of the maintenance plan and emission inventory and provided final guidance and recommendations. Projections of future emissions are based on growth rates that are consistent with Oregon Department of Economic Analysis data.

When an area is redesignated as attainment (state classification will be maintenance), the federal Clean Air Act allows the most stringent emission control requirements for new and expanding industrial sources, the “Lowest Achievable Emission Rate”, to be replaced by less restrictive “Best Achievable Control Technology”. Best Achievable Control

² This analysis considers industrial permitted levels from 2001 to 2015 and a 10% increase in vehicle miles traveled in the Klamath Falls Urban Growth Boundary.

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Technology allows the owners of a facility to consider cost in selecting controls, while the requirement for Lowest Achievable Emission Rate does not.

The Klamath Falls Air Quality Plan Advisory Committee recommended the following key provisions as part of the PM₁₀ Maintenance Plan:

- Continue the current strategies as required by EPA included in the woodstove and open burning ordinance. This ordinance was adopted by the County to reduce PM₁₀ emissions in the UGB;
- Continue other strategies as required by EPA that lead to the initial reduction in PM₁₀ emissions in the UGB. These strategies include reduced road sanding and a voluntary smoke management program for forest slash burning;
- Replace current emissions control technology requirement for new and expanding industry with Best Available Control Technology;
- Allow an exemption from the requirement to offset new industrial PM₁₀ emissions elsewhere in the UGB when the impact of the new emissions does not exceed limitations defined in this maintenance plan;
- Establish a transportation emissions budget that allows flexibility for transportation construction projects, but maintain air quality in the Klamath Basin below the National Ambient Air Quality Standards;
- Establish a contingency plan that calls for a planning team to identify strategies which will both prevent and correct any future violation of standards; and
- The contingency plan will also reinstate more stringent requirements for new and expanding industry should a violation of either standard occur as required by EPA.

The Klamath Falls Air Quality Advisory Committee and the Oregon Department of Transportation reviewed and made recommendations on the plan and the transportation emissions budget for PM₁₀ incorporated into the plan. The PM₁₀ emissions budget will be the benchmark for future transportation conformity determinations for regionally significant transportation projects within the Klamath Falls UGB.

4.56.0.2.4: Maintenance Plan Summary: Strategies, Conformity, and Contingency Plan

Woodstove Curtailment and other Woodstove Strategies

The home wood heating curtailment program in the Klamath Basin has been, and will remain, the most effective PM₁₀ emission reduction strategies for the Klamath Falls UGB. These strategies include certification standards for new stoves, changeout programs to encourage removal of noncertified stoves, and local ordinances to curtail burning during stagnant weather periods. During the 1990's, the new stove certification and the woodstove replacement programs resulted in a significant emissions reduction in Klamath Falls. The continued attrition of older woodstoves coupled with a general trend away from significant woodheating are expected to continue to decrease emissions through 2015 even with a moderate growth in households. DEQ conducted household surveys on woodstove use in 1993 and in 1999, and the results support the contention of

Attachment A2 Executive Summary of Klamath Falls PM₁₀ Maintenance Plan

older stove attrition. In addition, the mandatory woodstove curtailment ordinance has been an effective tool for keeping emissions low in the Klamath Basin.

Klamath County has found funding to continue with uncertified woodstove replacement in the Klamath Falls area. Most recently, the Klamath Expansion Project has provided the County with \$50,000 for an uncertified woodstove purchase program.

Industrial Requirements

The current New Source Review requirement for large new or expanding industry in the UGB is Lowest Achievable Emission Rate control technology and offsets for PM₁₀ emission impacts. This is the most stringent requirement for industrial controls. Upon EPA approval of the redesignation request, the requirement for major new industry in the UGB will be the Best Available Control Technology for PM₁₀ emissions. This is a less stringent requirement because it allows a source to consider cost in designing and evaluating the best available industrial emission controls. In addition, an exemption from offsets will be available for sources able to demonstrate through modeling that impacts from new emissions will not exceed limits established just below the standards (see Section 4.56.3.2.4).

Other Strategies

Open burning has been recognized as a significant contributor to emissions. A Klamath Falls ordinance prohibits burning on days with high concentrations of particulate matter. In 1998, the City of Klamath Falls further restricted open burning to only a few weeks in the fall and a few weeks in the spring. In 2001, Klamath County restricted open burning to one month in the fall and one-month in the spring. A high particulate concentration day during these periods also triggers restrictions on burning as provided in the 1991 ordinance.

The ordinance also expanded the Air Quality Zone to include developments outside the UGB that were not in the original area. Most of the other restrictions that help reduce or eliminate PM₁₀ pollution were maintained inside this zone.

PM₁₀ Transportation Emissions Budget

Transportation conformity regulations, required by the 1990 Federal Clean Air Act Amendments, require that a motor vehicle emissions budget be established in the State Implementation Plan (SIP). States must evaluate regionally significant transportation project for impacts on traffic and resulting impacts on PM₁₀ emissions.

The maintenance plan establishes an emissions budget that will serve as a benchmark for the approval of regionally significant projects within the Klamath Falls UGB. When new transportation projects are proposed, the Department of Transportation (ODOT) will forecast vehicle miles traveled and motor vehicle emissions as part of periodically

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Executive Summary of Klamath Falls PM₁₀ Maintenance Plan

updating the Statewide Transportation Improvement Program. The emissions forecast cannot exceed the State Implementation Plan emissions budget.

The budget for Klamath Falls was developed for the legally defined nonattainment area, the Klamath Falls UGB. There are only a handful of funded regionally significant transportation projects planned in the Klamath Falls basin. Future motor vehicle emissions resulting from these projects must not exceed the emissions allocation (budget) established in this maintenance plan through 2015. In case an unfunded project within the UGB becomes a reality, an additional ten percent margin for vehicle miles traveled has been added to the emissions budget.

Contingency Plan Elements

The maintenance plan must contain contingency measures that would be implemented either to prevent or correct a violation of the PM₁₀ standard after the area is redesignated. The Clean Air Act requires that measures in the original attainment plan be reinstated if a violation occurs. Under the contingency plan recommended by the Klamath Falls air quality committee, the committee will reconvene if either the 24-hour or the annual PM₁₀ concentration equals or exceeds 90% of the standard. The planning group will assess the probable emissions events resulting in elevated PM₁₀ concentrations and reconsider all strategies associated with those sources to reduce emissions. The group will recommend an action plan and implement actions to prevent a future exceedance of either standard. If a violation occurs, the action plan will recommend additional strategies to return the community to compliance with the standards. Additionally, Lowest Achievable Emission Rate requirements, plus offsets for major new industrial sources in the UGB, will be restored and the exemption for offsets eliminated.

**Attachment A3
Proposed Rule Revisions**

**Division 200
General Air Pollution Procedures and Definitions**

340-200-0040

State of Oregon Clean Air Act Implementation Plan

(1) This implementation plan, consisting of Volumes 2 and 3 of the State of Oregon Air Quality Control Program, contains control strategies, rules and standards prepared by the Department of Environmental Quality and is adopted as the state implementation plan (SIP) of the State of Oregon pursuant to the federal Clean Air Act, ~~Public Law 88-206 as last amended by Public Law 101-54942 U.S.C.A §§ 7401 to 7671q.~~

(2) Except as provided in section (3), revisions to the SIP will be made pursuant to the Commission's rulemaking procedures in division 11 of this Chapter and any other requirements contained in the SIP and will be submitted to the United States Environmental Protection Agency for approval.

(3) Notwithstanding any other requirement contained in the SIP, the Department may:

(a) Submit to the Environmental Protection Agency any permit condition implementing a rule that is part of the federally-approved SIP as a source-specific SIP revision after the Department has complied with the public hearings provisions of 40 CFR 51.102 (July 1, ~~1992~~2002); and

(b) Approve the standards submitted by a regional authority if the regional authority adopts verbatim any standard that the Commission has adopted, and submit the standards to EPA for approval as a SIP revision.

NOTE: Revisions to the State of Oregon Clean Air Act Implementation Plan become federally enforceable upon approval by the United States Environmental Protection Agency. If any provision of the federally approved Implementation Plan conflicts with any provision adopted by the Commission, the Department shall enforce the more stringent provision.

Stat. Auth.: ORS 468.020

Stats. Implemented: ORS 468A.035

Hist.: DEQ 35, f. 2-3-72, ef. 2-15-72; DEQ 54, f. 6-21-73, ef. 7-1-73; DEQ 19-1979, f. & ef. 6-25-79; DEQ 21-1979, f. & ef. 7-2-79; DEQ 22-1980, f. & ef. 9-26-80; DEQ 11-1981, f. & ef. 3-26-81; DEQ 14-1982, f. & ef. 7-21-82; DEQ 21-1982, f. & ef. 10-27-82; DEQ 1-1983, f. & ef. 1-21-83; DEQ 6-1983, f. & ef. 4-18-83; DEQ 18-1984, f. & ef. 10-16-84; DEQ 25-1984, f. & ef. 11-27-84; DEQ 3-1985, f. & ef. 2-1-85; DEQ 12-1985, f. & ef. 9-30-85; DEQ 5-1986, f. & ef. 2-21-86; DEQ 10-1986, f. & ef. 5-9-86; DEQ 20-1986, f. & ef. 11-7-86; DEQ 21-1986, f. & ef. 11-7-86; DEQ 4-1987, f. & ef. 3-2-87; DEQ 5-1987, f. & ef. 3-2-87; DEQ 8-1987, f. & ef. 4-23-87; DEQ 21-1987, f. & ef. 12-16-87; DEQ 31-1988, f. 12-20-88, cert. ef. 12-23-88; DEQ 2-1991, f. & cert. ef. 2-14-91; DEQ 19-1991, f. & cert. ef. 11-13-91; DEQ 20-1991, f. & cert. ef. 11-13-91; DEQ 21-1991, f. & cert. ef. 11-13-91; DEQ 22-1991, f. & cert. ef. 11-13-91; DEQ 23-1991, f. & cert. ef. 11-13-91; DEQ 24-1991, f. & cert. ef. 11-13-91; DEQ 25-1991, f. & cert. ef. 11-13-91; DEQ 1-1992, f. & cert. ef. 2-4-92; DEQ 3-1992, f. & cert. ef. 2-4-92; DEQ 7-1992, f. & cert. ef. 3-30-92; DEQ 19-1992, f. & cert. ef. 8-11-92; DEQ 20-1992, f. & cert. ef. 8-11-92; DEQ 25-1992, f. 10-30-92, cert. ef. 11-1-92; DEQ 26-1992, f. & cert. ef. 11-2-92; DEQ 27-1992, f. & cert. ef. 11-12-92; DEQ 4-1993, f. & cert. ef. 3-10-93; DEQ 8-1993, f. & cert. ef. 5-11-93; DEQ 12-1993, f. & cert. ef. 9-24-93; DEQ 15-1993, f. & cert. ef. 11-4-93; DEQ 16-1993, f. & cert. ef. 11-4-93; DEQ 17-1993, f. & cert. ef. 11-4-93; DEQ 19-1993, f. & cert. ef. 11-4-93; DEQ 1-1994, f. & cert. ef. 1-3-94; DEQ 5-1994, f. & cert. ef. 3-21-94; DEQ 14-1994, f. & cert. ef. 5-31-94; DEQ 15-1994, f. 6-8-94, cert. ef. 7-1-94; DEQ 25-1994, f. & cert. ef. 11-2-94; DEQ 9-1995, f. & cert. ef. 5-1-95; DEQ 10-1995, f. & cert. ef. 5-1-95; DEQ 14-1995, f. & cert. ef. 5-25-95; DEQ 17-1995, f. & cert. ef. 7-12-95; DEQ 19-1995, f. & cert. ef. 9-1-95; DEQ 20-1995 (Temp), f. & cert. ef. 9-14-95; DEQ 8-1996(Temp), f. & cert. ef. 6-3-96; DEQ 15-1996, f. & cert. ef. 8-14-96; DEQ 19-1996, f. & cert. ef. 9-24-96; DEQ 22-1996, f. & cert. ef. 10-22-96; DEQ 23-1996, f. & cert. ef. 11-4-96; DEQ 24-1996, f. & cert. ef. 11-26-96; DEQ 10-1998, f. & cert. ef. 6-22-98; DEQ 15-1998, f. & cert. ef. 9-23-98; DEQ 16-1998, f. & cert. ef. 9-23-98; DEQ 17-1998, f. & cert. ef. 9-23-98; DEQ 20-1998, f. & cert. ef. 10-12-98; DEQ 21-1998, f. & cert. ef. 10-12-98; DEQ 1-1999, f. & cert. ef. 1-25-99; DEQ 5-1999, f. & cert. ef. 3-25-99; DEQ 6-1999, f. & cert. ef. 5-21-99; DEQ 10-1999, f. & cert. ef. 7-1-99; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-020-0047; DEQ 15-1999, f. & cert. ef. 10-22-99; DEQ 2-2000, f. 2-17-00, cert. ef. 6-f1-01; DEQ 6-2000, f. & cert. ef. 5-22-00; DEQ 8-2000, f. & cert. ef. 6-6-00; DEQ 13-2000, f. & cert. ef. 7-28-00; DEQ 16-2000, f. & cert. ef. 10-25-00; DEQ 17-2000, f. & cert. ef. 10-25-00; DEQ 20-2000 f. & cert. ef. 12-15-00; DEQ 21-2000, f. & cert. ef. 12-15-00; DEQ 2-2001, f. & cert. ef. 2-5-01; DEQ 4-2001, f. & cert. ef. 3-27-01; DEQ 6-2001, f. 6-18-01, cert. ef. 7-1-01; DEQ 15-2001, f. & cert. ef. 12-26-01; DEQ 16-2001, f. & cert. ef. 12-26-01; DEQ 17-2001, f. & cert. ef. 12-28-01; DEQ 4-2002, f. & cert. ef. 3-14-02

**Attachment A3
Proposed Rule Revisions**

**DIVISION 204
DESIGNATION OF AIR QUALITY AREAS**

340-204-0030

Designation of Nonattainment Areas

The following areas are designated as Nonattainment Areas:

(1) Carbon Monoxide Nonattainment Areas:

~~(a) The Grants Pass Nonattainment Area for Carbon Monoxide is the Grants Pass CBD as defined in OAR 340-204-0010. After the effective date of the Environmental Protection Agency's approval of this section as a revision to the Oregon Clean Air Act Implementation Plan as published in the Federal Register, the Grants Pass CBD is not subject to OAR 340-204-0030 and is no longer considered a nonattainment area.~~

~~(b) The Klamath Falls Nonattainment Area for Carbon Monoxide is the Klamath Falls UGB as defined in OAR 340-204-0010.~~

~~(c) The Salem Nonattainment Area for Carbon Monoxide is the Salem-Kaiser Area Transportation Study as defined in OAR 340-204-0010.~~

(2) PM10 Nonattainment Areas: Revocation of the nonattainment designation for the following areas will be effective upon final notice in the Federal Register:

(a) The Eugene Nonattainment Area for PM10 is the Eugene-Springfield UGB as defined in OAR 340-204-0010.

~~(b) The Grants Pass Nonattainment Area for PM10 as defined in OAR 340-204-0010.~~

~~(c) The Klamath Falls Nonattainment Area for PM10 as defined in OAR 340-204-0010.~~

~~(d) The LaGrande Nonattainment Area for PM10 is the LaGrande UGB as defined in OAR 340-204-0010.~~

~~(e) The Lakeview Nonattainment Area for PM10 is the Lakeview UGB as defined in OAR 340-204-0010.~~

~~(f) The Medford Nonattainment Area for PM10 is the Medford-Ashland AQMA as defined in OAR 340-204-0010.~~

~~(g) The Oakridge Nonattainment Area for PM10 is the Oakridge UGB as defined in OAR 340-204-0010.~~

(3) Ozone Nonattainment Areas: The Salem Nonattainment Area for Ozone is the Salem-Kaiser Area Transportation Study as defined in OAR 340-204-0010.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-200-0040.]

Stat. Auth.: ORS 468.020

Stats. Implemented: ORS 468A.025

Hist.: DEQ 14-1995, f. & cert. ef. 5-25-95; DEQ 18-1996, f. & cert. ef. 8-19-96; DEQ 15-1998, f. & cert. ef. 9-23-98; DEQ 1-1999, f. & cert. ef. 1-25-99; DEQ 14-1999, f. & cert. ef. 10-14-99,

Renumbered from 340-031-0520; DEQ 15-1999, f. & cert. ef. 10-22-99; DEQ 16-2000, f. & cert. ef. 10-25-00; DEQ 6-2001, f. 6-18-01, cert. ef. 7-1-01

340-204-0040

Designation of Maintenance Areas

The following areas are designated as Maintenance Areas:

(1) Carbon Monoxide Maintenance Areas:

(a) The Eugene Maintenance Area for Carbon Monoxide is the Eugene-Springfield AQMA as defined in OAR 340-204-0010.

(b) The Portland Maintenance Area for Carbon Monoxide is the Portland Metropolitan Service District as referenced in OAR 340-204-0010.

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(c) The Medford Carbon Monoxide Maintenance Area is the Medford UGB as defined in OAR 340-204-0010.

~~[NOTE: EPA maintenance plan approval and redesignation pending].~~

(d) The Grants Pass Carbon Monoxide Maintenance Area is the Grants Pass CBD as defined in OAR 340-204-0010.

~~[NOTE: EPA maintenance plan approval and redesignation pending].~~

(e) The Klamath Falls Carbon Monoxide Maintenance Area is the Klamath Falls UGB as defined in OAR 340-204-0010.

~~[NOTE: EPA maintenance plan approval and redesignation pending].~~

(2) Ozone Maintenance Areas:

(a) The Medford Maintenance Area for Ozone is the Medford-Ashland AQMA as defined in OAR 340-204-0010.

(b) The Oregon portion of the Portland – Vancouver Interstate Maintenance Area for Ozone is the Portland AQMA, as defined in OAR 340-204-0010.

(3) PM₁₀ Maintenance Areas:

~~There are no areas in the state that have been designated by the EQC as PM₁₀ Maintenance Areas.~~

~~(a) The Grants Pass PM₁₀ Maintenance Area is the Grants Pass UGB as defined in OAR 340-204-0010.~~

~~[NOTE: EPA maintenance plan approval and redesignation pending].~~

~~(b) The Klamath Falls PM₁₀ Maintenance Area is the Klamath Falls UGB as defined in OAR 340-204-0010.~~

~~[NOTE: EPA maintenance plan approval and redesignation pending].~~

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-200-0040.]

Stat. Auth.: ORS 468.020

Stats. Implemented: ORS 468A.025

Hist.: DEQ 14-1995, f. & cert. ef. 5-25-95; DEQ 18-1996, f. & cert. ef. 8-19-96; DEQ 15-1998, f. & cert. ef. 9-23-98; DEQ 1-1999, f. & cert. ef. 1-25-99; DEQ 14-1999, f. & cert. ef. 10-14-99,

Renumbered from 340-031-0530; DEQ 15-1999, f. & cert. ef. 10-22-99; DEQ 16-2000, f. & cert. ef. 10-25-00

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**DIVISION 222
STATIONARY SOURCE PLANT SITE EMISSION LIMITS**

340-222-0041

Source Specific Annual PSEL

- (1) For sources with potential to emit less than the SER, that request a source specific PSEL, an initial source specific PSEL will be set equal to the Generic PSEL.
 - (2) For sources with potential to emit greater than or equal to the SER, an initial source specific PSEL will be set equal to the source's potential to emit or netting basis, whichever is less.
 - (3) If an applicant wants an annual PSEL at a rate greater than the netting basis, the applicant must:
 - (a) Demonstrate that the requested increase over the netting basis is less than the SER; or
 - (b) For increases equal to or greater than the SER over the netting basis, but not subject to New Source Review (OAR 340 dDivision 224):
 - (A) If located within, or creating a significant air quality impact as defined in OAR 340-200-0020 upon, an area designated as nonattainment in OAR 340-204-0030, the applicant must obtain offsets and demonstrate a net air quality benefit in accordance with OAR 340-225-0090.
 - (B) If located within, or creating a significant air quality impact as defined in OAR 340-200-0020 upon, an area designated as maintenance in OAR 340-204-0040, the applicant must either
 - (i) Obtain offsets and demonstrate a net air quality benefit in accordance with OAR 340-225-0090;
 - (ii) Obtain an allocation from an available growth allowance in accordance with the applicable maintenance plan; or
 - (iii) For carbon monoxide, demonstrate that the source or modification will not cause or contribute to an air quality impact equal to or greater than 0.5 mg/m³ (8-hour average) and 2 mg/m³ (1-hour average).
- Demonstrate compliance with the air quality impact levels in OAR 340-224-0060 (2)(c) or (2)(d), whichever applies to the maintenance area, by conducting an air quality analysis in accordance with OAR 340-225-0045.
- (C) If located within an attainment or unclassifiable area, the applicant must demonstrate compliance with the NAAQS and PSD increments by conducting an air quality analysis, in accordance with OAR 340-225-0050(1) through and (3) and 340-225-0060.
 - (D) For federal major sources, the applicant must demonstrate compliance with AQRV protection in accordance with OAR 340-225-0050(3) and 340-225-0070.
- (c) For increases equal to or greater than the SER over the netting basis and subject to New Source Review, the applicant must demonstrate that the applicable New Source Review requirements have been satisfied.

Stat. Auth.: ORS 468.020

Stats. Implemented: ORS 468A

Hist.: DEQ 6-2001, f. 6-18-01, cert. ef. 7-1-01

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DIVISION 224
MAJOR NEW SOURCE REVIEW

340-224-0060

Requirements for Sources in Maintenance Areas

Proposed major sources and major modifications that would emit a maintenance pollutant within a designated ~~ozone or carbon monoxide~~ maintenance area, including VOC or NO_x in a designated ozone maintenance area, must meet the requirements listed below:

- (1) Best Available Control Technology (BACT). Except as provided in section (45) of this rule, the owner or operator must apply BACT for each maintenance pollutant emitted at a SER.
 - (a) For a major modification, the requirement for BACT applies only to:
 - (A) each new emissions unit that emits the pollutant in question and was installed since the baseline period or the most recent New Source Review construction approval for that pollutant; and
 - (B) each modified emissions unit that increases the actual emissions of the pollutant in question above the netting basis.
 - (b) For phased construction projects, the BACT determination must be reviewed at the latest reasonable time before commencement of construction of each independent phase.
 - (c) When determining BACT for a change that was made at a source before the current NSR application, the technical and economic feasibility of retrofitting required controls may be considered, provided:
 - (A) the change was made in compliance with NSR requirements in effect at the ~~time~~when the change was made; and
 - (B) no limit is being relaxed that was previously relied on to avoid NSR.
 - (d) Individual modifications with potential to emit less than 10 percent of the significant emission rate are exempt from this section unless:
 - (A) they are not constructed yet;
 - (B) they are part of a discrete, identifiable larger project that was constructed within the previous 5 years and that is equal to or greater than 10 percent of the significant emission rate; or
 - (C) they were constructed without, or in violation of, the Department's approval.
- (2) Air Quality Protection:
 - (a) Offsets and Net Air Quality Benefit. Except as provided in subsections (b) ~~and~~, (c) ~~and~~ (d) of this section, the owner or operator must obtain offsets and demonstrate that a net air quality benefit will be achieved in the area as specified in OAR 340-225-0090.
 - (b) Growth Allowance. The requirements of this section may be met in whole or in part in an ozone or carbon monoxide maintenance area with an allocation by the Department from a growth allowance, if available, in accordance with the applicable maintenance plan in the SIP adopted by the Commission and approved by EPA. An allocation from a growth allowance used to meet the requirements of this section is not subject to OAR 340-225-0090. Procedures for allocating the growth allowances for the Oregon portion of the Portland-Vancouver Interstate Maintenance Area for Ozone and the Portland Maintenance Area for Carbon Monoxide are contained in OAR 340-242-0430 and 340-242-0440.

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- (c) Modeling. ~~A~~ In a carbon monoxide maintenance area, a proposed carbon monoxide major source or major modification that would emit carbon monoxide emissions within a carbon monoxide maintenance area is exempt from subsections (a) and (b) of this section if the owner or operator can demonstrate that the source or modification will not cause or contribute to an air quality impact equal to or greater than 0.5 mg/m³ (8 hour average) and 2 mg/m³ (1-hour average). The demonstration must comply with the requirements of OAR 340-225-0045.
- (d) In a PM₁₀ maintenance area, a proposed PM₁₀ major source or major modification is exempt from subsection (a) of this section if the owner or operator can demonstrate that the source or modification will not cause or contribute to an air quality impact in excess of:
(A) 120 µg/m³ (24-hour average) or 40 µg/m³ (annual average) in the Grants Pass PM10 maintenance area, or
(B) 140 µg/m³ (24-hour average) or 47 µg/m³ (annual average) in the Klamath Falls PM10 maintenance area.
The demonstration must comply with the requirements of OAR 340-225-0045.
- (3) The owner or operator of a source subject to this rule must provide an air quality analysis in accordance with OAR 340-225-0050(1) and (2), and 340-225-0060.
- (4) Additional Requirements for Federal Major Sources: The owner ~~of or~~ operator of a federal major source subject to this rule must provide an analysis of the air quality impacts for the proposed source or modification in accordance with OAR 340-225-0050(3) and through 340-225-0070.
- (54) Contingency Plan Requirements. If the contingency plan in an applicable maintenance plan is implemented due to a violation of an ambient air quality standard, this section applies in addition to other requirements of this rule until the Commission adopts a revised maintenance plan and EPA approves it as a SIP revision to the SIP.
- (a) The requirement for BACT in section (1) of this rule is replaced by the requirement for LAER contained in OAR 340-224-0050(1).
- (b) An allocation from a growth allowance may not be used to meet the requirement for offsets in section (2) of this rule.
- (c) The exemption provided in subsection (2)(c) and (2)(d) of this rule for major sources or major modifications within a carbon monoxide or PM₁₀ maintenance area no longer applies.
- (56) Pending Redesignation Requests. This rule does not apply to a proposed major source or major modification for which a complete application to construct was submitted to the Department before the maintenance area was redesignated from nonattainment to attainment by EPA. Such a source is subject to OAR 340-224-0050.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the EQC under OAR 340-200-0040.]

[Publications: The publication(s) referenced in this rule is available from the office of the Department.]

Stat. Auth.: ORS 468.020

Stats. Implemented: ORS 468A.025

Hist.: DEQ 26-1996, f. & cert. ef. 11-26-96; DEQ 15-1998, f. & cert. ef. 9-23-98; DEQ 1-1999, f. & cert. ef. 1-25-99; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-028-1935; DEQ 6-2001, f. 6-18-01, cert. ef. 7-1-01

340-224-0070

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Prevention of Significant Deterioration Requirements for Sources in Attainment or Unclassified Areas

Proposed new federal major sources or major modifications at federal major sources locating in areas designated attainment or unclassifiable must meet the following requirements:

- (1) Best Available Control Technology (BACT). The owner or operator of the proposed major source or major modification must apply BACT for each pollutant emitted at a SER over the netting basis.
 - (a) For a major modification, the requirement for BACT applies only to:
 - (A) Each new emissions unit that emits the pollutant in question and was installed since the baseline period or the most recent New Source Review construction approval for that pollutant and
 - (B) Each modified emissions unit that increases the actual emissions of the pollutant in question above the netting basis.
 - (b) For phased construction projects, the BACT determination must be reviewed at the latest reasonable time before commencement of construction of each independent phase.
 - (c) When determining BACT for a change that was made at a source before the current NSR application, any additional cost of retrofitting required controls may be considered provided:
 - (A) The change was made in compliance with NSR requirements in effect at the time the change was made, and
 - (B) No limit is being relaxed that was previously relied on to avoid NSR.
 - (d) Individual modifications with potential to emit less than 10 percent of the significant emission rate are exempt from this section unless:
 - (A) They are not constructed yet;
 - (B) They are part of a discrete, identifiable larger project that was constructed within the previous 5 years and that is equal to or greater than 10 percent of the significant emission rate; or
 - (C) They were constructed without, or in violation of, the Department's approval.
- (2) Air Quality Analysis: The owner or operator of a source subject to this rule must provide an analysis of the air quality impacts for the proposed source or modification in accordance with OAR 340-225-0050 through 340-225-0070.
- (3) Air Quality Monitoring: The owner or operator of a source subject to this rule must conduct ambient air quality monitoring in accordance with the requirements in OAR 340-225-0050.
- (4) The owner or operator of a source subject to this rule and significantly impacting a PM₁₀ maintenance area (significant air quality impact is defined in OAR 340-200-0020), must comply with the requirements of OAR 340-224-0060(2).

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the EQC under OAR 340-200-0040.]

[Publications: The publication(s) referenced in this rule is available from the agency.]

Stat. Auth.: ORS 468.020

Stats. Implemented: ORS 468A.025

Hist.: DEQ 25-1981, f. & ef. 9-8-81; DEQ 5-1983, f. & ef. 4-18-83; DEQ 18-1984, f. & ef. 10-16-84; DEQ 14-1985, f. & ef. 10-16-85; DEQ 5-1986, f. & ef. 2-21-86; DEQ 8-1988, f. & cert. ef. 5-19-88 (and corrected 5-31-88); DEQ 27-1992, f. & cert. ef. 11-12-92; Section (8) Renumbered from 340-020-0241; DEQ 4-1993, f. & cert. ef. 3-10-93; DEQ 12-1993, f. & cert. ef. 9-24-93; Renumbered from 340-020-0245; DEQ 19-1993, f. & cert. ef. 11-4-93; DEQ 26-1996, f. & cert. ef. 11-26-96; DEQ 16-1998, f. & cert. ef. 9-23-98; DEQ 1-1999, f. & cert. ef. 1-25-99; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-028-1940; DEQ 6-2001, f. 6-18-01, cert. ef. 7-1-01

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**DIVISION 225
AIR QUALITY ANALYSIS REQUIREMENTS**

340-225-0020

Definitions

The definitions in OAR 340-200-0020 and this rule apply to this division. If the same term is defined in this rule and OAR-340-200-0020, the definition in this rule applies to this division.

- (1) "Allowable Emissions" means the emissions rate of a stationary source calculated using the maximum rated capacity of the source (unless the source is subject to federally enforceable limits which restrict the operating rate, or hours of operation, or both) and the most stringent of the following:
 - (a) The applicable standards as set forth in 40 CFR parts 60 and 61;
 - (b) The applicable State Implementation Plan emissions limitation, including those with a future compliance date; or
 - (c) The emissions rate specified as a federally enforceable permit condition.
- (2) "Background Light Extinction" means the reference levels (Mm^{-1}) shown in the estimates of natural conditions as referenced in the FLAG to be representative of the PSD Class I or Class II area being evaluated.
- (3) "Baseline Concentration" means:
 - (a) Except as provided in subsection (c), the ambient concentration level for sulfur dioxide and PM10 that existed in an area during the calendar year 1978. If no ambient air quality data is available in an area, the baseline concentration may be estimated using modeling based on actual emissions for 1978. Actual emission increases or decreases occurring before January 1, 1978 must be included in the baseline calculation, except that actual emission increases from any source or modification on which construction commenced after January 6, 1975 must not be included in the baseline calculation;
 - (b) The ambient concentration level for nitrogen oxides that existed in an area during the calendar year 1988.
 - (c) For the area of northeastern Oregon within the boundaries of the Umatilla, Wallowa-Whitman, Ochoco, and Malheur National Forests, the ambient concentration level for PM10 that existed during the calendar year 1993. The Department may allow the source to use an earlier time period if the Department determines that it is more representative of normal emissions.
- (4) "Competing PSD Increment Consuming Source Impacts" means the total modeled concentration above the modeled Baseline Concentration resulting from increased emissions of all other sources since the baseline concentration year that are within the Range of Influence of the source in question. Actual Emissions may be used if this analysis includes all emissions changes from all point, area, and mobile sources, otherwise Allowable Emissions must be used.
- (5) "Competing NAAQS Source Impacts" means total modeled concentration resulting from allowable emissions of all other sources that are within the Range of Influence of the source in question.

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- (6) "FLAG " refers to the Federal Land Managers' Air Quality Related Values Work Group Phase I Report. See 66 Federal Register 2, January 3, 2001 at 382-383.
- (7) "General Background Concentration" means impacts from natural sources and unidentified sources that were not explicitly modeled. The Department may determine this as site-specific ambient monitoring or representative ambient monitoring from another location.
- (8) "Predicted Maintenance Area Concentration" means the future year ambient concentration predicted in the applicable maintenance plan. The future year (2015) concentrations to be used for Grants Pass UGB are 89 $\mu\text{g}/\text{m}^3$ (24-hour average) and 21 $\mu\text{g}/\text{m}^3$ (annual average). Future year (2015) concentrations to be used for Klamath Falls UGB are 114 $\mu\text{g}/\text{m}^3$ (24-hour average) and 25 $\mu\text{g}/\text{m}^3$ (annual average).
- (89) "Nitrogen Deposition" means the sum of anion and cation nitrogen deposition expressed in terms of the mass of total elemental nitrogen being deposited. As an example, Nitrogen Deposition for NH_4NO_3 is 0.3500 times the weight of NH_4NO_3 being deposited.
- (910) "Ozone Precursor Significant Impact Distance" means:
- (a) 30 kilometers for sources with permit applications deemed complete before January 1, ~~2003~~2004 that would impact the nonattainment area or maintenance area and have proposed emissions increases above the Significant Emission Rates for VOCs or NO_x . These emissions increases are quantified relative to the baseline year or the date of the last PSD approval.
- (b) For sources with permit applications deemed complete on or after January 1, ~~2003~~2004, the distance in kilometers from the source being evaluated to the closest boundary of an ozone nonattainment area or ozone maintenance area and is defined as follows. This equation applies only to sources that would impact ozone concentrations in the nonattainment area or maintenance area and have proposed emissions increases above the Significant Emission Rates for VOCs or NO_x .

$D = [(Q)/40]*30 \text{ km. } (30 \text{ km.} \leq D \leq 100 \text{ km.})$ where:

Q = the larger of NO_x or VOC emissions increase from the source being evaluated in tons/year. This emissions increase is quantified relative to the baseline year or the date of the last PSD approval occurring since the baseline year or the date of the last PSD approval.

D = the Ozone Precursor Significant Impact Distance in kilometers.

The minimum value for D is 30 kilometers when D is calculated to be less than 30 kilometers.

An applicant may demonstrate to the Department that the source or proposed source would not significantly impact a nonattainment area or maintenance area. This demonstration may be based on an analysis of major topographic features, dispersion modeling, meteorological conditions, or other factors. If the Department determines that the source or proposed source would not significantly impact the nonattainment area or maintenance area under high

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ozone conditions, the Ozone Precursor Significant Impact Distance is zero kilometers.

(4011) "Range of Influence" means:

- (a) For PSD Class II and Class III areas, the Range of Influence of a competing source (in kilometers) is defined by:

$$\text{ROI (km)} = E \text{ (tons/year)} / K \text{ where:}$$

ROI is the distance in kilometers from the source being evaluated to the location of a potential competing source in kilometers plus the radius of the Source Impact Area.

E is the emission rate of the competing source in tons/year.

K is a constant defined by pollutant and is defined in the table below:

Pollutant	PM10	SOx	NOx	CO	Lead
K	5	5	10	40	0.15

- (b) For PSD Class I areas, the Range of Influence of a competing source includes emissions from all sources that occur within the modeling domain of the source being evaluated. The Department determines the modeling domain on a case-by-case basis.

(4412) "Source Impact Area" means a circular area with a radius extending from the source to the largest distance to where predicted impacts from the source or modification equal or exceed the Significant Air Quality Impact levels set out in Table 1 of OAR 340 division 200. This definition only applies to PSD Class II areas and is not intended to limit the distance for PSD Class I modeling.

(4213) "Sulfur Deposition" means the sum of anion and cation sulfur deposition expressed in terms of the total mass of elemental sulfur being deposited. As an example, sulfur deposition for (NH4)2SO4 is 0.2427 times the weight of (NH4)2SO4 being deposited.

Stat. Auth.: ORS 468.020

Stats. Implemented: ORS 468A

Hist.: DEQ 6-2001, f. 6-18-01, cert. ef. 7-1-01

340-225-0045

Requirements for Analysis in Maintenance Areas

Modeling: For determining compliance with the limits established in OAR 340-224-0060 (2)(c) and (2)(d), NAAQS, and PSD Increments, the following methods must be used:

- (1) A single source impact analysis is sufficient to show compliance with standards, PSD increments, and limits if modeled impacts from the source being evaluated are less than the Significant Air Quality Impact levels specified in OAR 340-200-0020, Table 1 for all maintenance pollutants.

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- (2) If the above requirement is not satisfied, the owner or operator of a proposed source or modification being evaluated must perform competing source modeling as follows:
- (a) For demonstrating compliance with the maintenance area limits established in OAR 340-224-0060(2)(c) and (2)(d), the owner or operator of a proposed source or modification must show that modeled impacts from the proposed increased emissions plus Competing Source Impacts, plus predicted maintenance area concentration are less than the limits for all averaging times.
 - (b) For demonstrating compliance with the NAAQS, the owner or operator of a proposed source must show that the total modeled impacts plus total Competing NAAQS Source Impacts plus General Background Concentrations are less than the NAAQS for all averaging times.
 - (c) For demonstrating compliance with the PSD Increments (as defined in OAR 340-202-0210, Table 1), the owner or operator of a proposed source or modification must show that modeled impacts from the proposed increased emissions (above the baseline concentration) plus competing PSD Increment Consuming Source Impacts (above the baseline concentration) are less than the PSD increments for all averaging times.

340-225-0050

Requirements for Analysis in PSD Class II and Class III Areas

Modeling: For determining compliance with the NAAQS and PSD Increments in PSD Class II and Class III areas, the following methods must be used:

- (1) A single source impact analysis is sufficient to show compliance with standards and increments if modeled impacts from the source being evaluated are less than the Significant Air Quality Impact levels specified in OAR 340-200-0020, Table 1 for all pollutants.
- (2) If the above requirement is not satisfied, the owner or operator of a proposed source or modification being evaluated must perform competing source modeling as follows:
 - (a) For demonstrating compliance with the PSD Increments (as defined in OAR 340-202-0210, Table 1), the owner or operator of a proposed source or modification must show that modeled impacts from the proposed increased emissions (above the modeled Baseline Concentration) plus Competing PSD Increment Consuming Source Impacts (above the modeled Baseline Concentration) are less than the PSD increments for all averaging times.
 - (b) For demonstrating compliance with the NAAQS, the owner or operator of a proposed source must show that the total modeled impacts plus total Competing NAAQS Source Impacts plus General Background Concentrations are less than the NAAQS for all averaging times.
- (3) Additional Impact Modeling:
 - (a) When referred to this rule by divisions 222 or 224, the owner or operator of a source must provide an analysis of the impairment to visibility, soils

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- and vegetation that would occur as a result of the source or modification, and general commercial, residential, industrial and other growth associated with the source or modification. As a part of this analysis, deposition modeling analysis is required for sources emitting heavy metals above the significant emission rates as defined in OAR 340-200-0020, Table 2. Concentration and deposition modeling may also be required for sources emitting other compounds on a case-by-case basis;
- (b) The owner or operator must provide an analysis of the air quality concentration projected for the area as a result of general commercial, residential, industrial and other growth associated with the source or modification.
- (4) Air Quality Monitoring:
- (a)(A) When referred to this rule by divisions ~~222~~ of 224, the owner or operator of a source must submit with the application an analysis of ambient air quality in the area impacted by the proposed project. This analysis, which is subject to the Department's approval, must be conducted for each pollutant potentially emitted at a significant emission rate by the proposed source or modification. The analysis must include continuous air quality monitoring data for any pollutant that may be emitted by the source or modification, except for volatile organic compounds. The data must relate to the year preceding receipt of the complete application and must have been gathered over the same time period. The Department may allow the owner or operator to demonstrate that data gathered over some other time period would be adequate to determine that the source or modification would not cause or contribute to a violation of an ambient air quality standard or any applicable pollutant increment. Pursuant to the requirements of these rules, the owner or operator must submit for the Department's approval, a preconstruction air quality monitoring plan. This plan must be submitted in writing at least 60 days prior to the planned beginning of monitoring and approved in writing by the Department before monitoring begins.
- (B) Required air quality monitoring must be conducted in accordance with 40 CFR 58 Appendix B, "Quality Assurance Requirements for Prevention of Significant Deterioration (PSD) Air Monitoring" (July 1, 2000) and with other methods on file with the Department.
- (C) The Department may exempt the owner or operator of a proposed source or modification from preconstruction monitoring for a specific pollutant if the owner or operator demonstrates that the air quality impact from the emissions increase would be less than the amounts listed below or that modeled competing source concentration (plus General Background Concentration) of the pollutant within the Source Impact Area are less than the following significant monitoring concentrations:
- (i) Carbon monoxide -- 575 ug/m³, 8 hour average;
 - (ii) Nitrogen dioxide -- 14 ug/m³, annual average;
 - (iii) PM₁₀ -- 10 ug/m³, 24 hour average.

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- (iv) Sulfur dioxide -- 13 ug/m³, 24 hour average;
 - (v) Ozone -- Any net increase of 100 tons/year or more of VOCs from a source or modification subject to PSD requires an ambient impact analysis, including the gathering of ambient air quality data. However, requirement for ambient air monitoring may be exempted if existing representative monitoring data shows maximum ozone concentrations are less than 50% of the ozone NAAQS based on a full season of monitoring;
 - (vi) Lead -- 0.1 ug/m³, 24 hour average;
 - (vii) Fluorides -- 0.25 ug/m³, 24 hour average;
 - (viii) Total reduced sulfur -- 10 ug/m³, 1 hour average;
 - (ix) Hydrogen sulfide -- 0.04 ug/m³, 1 hour average;
 - (x) Reduced sulfur compounds -- 10 ug/m³, 1 hour average.
- (D) The Department may allow the owner or operator of a source (where required by divisions 222 or 224) to substitute post construction monitoring for the requirements of (4)(a)(A) for a specific pollutant if the owner or operator demonstrates that the air quality impact from the emissions increase would not cause or contribute to an exceedance of any air quality standard. This analysis must meet the requirements of 340-225-0050(2)(b) and must use representative or conservative General Background Concentration data.
- (E) When PM10 preconstruction monitoring is required by this section, at least four months of data must be collected, including the season(s) the Department judges to have the highest PM10 levels. PM10 must be measured in accordance with 40 CFR part 50, Appendix J (July 1, 1999). In some cases, a full year of data will be required.
- (b) After construction has been completed, the Department may require ambient air quality monitoring as a permit condition to establish the effect of emissions, other than volatile organic compounds, on the air quality of any area that such emissions could affect.

[Publications: The publication(s) referenced in this rule is available from the agency.]

Stat. Auth.: ORS 468.020

Stats. Implemented: ORS 468A

Hist.: DEQ 6-2001, f. 6-18-01, cert. ef. 7-1-01

340-225-0060

Requirements for Demonstrating Compliance with Standards and Increments in PSD Class I Areas

For determining compliance with standards and increments in PSD Class I areas, the following methods must be used:

- (1) Before January 1, 2003, the owner or operator of a source (where required by divisions 222 or 224) must model impacts and demonstrate compliance with standards and increments on all PSD Class I areas that may be affected by the source or modification.

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- (2) On or after January 1, 2003, the owner or operator of a source (where required by divisions 222 or 224) must meet the following requirements:
- (a) A single source impact analysis will be sufficient to show compliance with increments if modeled impacts from the source being evaluated are demonstrated to be less than the impact levels specified in Table I below.

Table I
Significant Impact Levels for PSD Class I Areas

Pollutant	Averaging Time	PSD Class I Significant Impact Level
PM10	24 hour	0.30 µg/m ³
PM10	Annual	0.20 µg/m ³
SO ₂	3-hour	1.0 µg/m ³
SO ₂	24-hour	0.20 µg/m ³
SO ₂	Annual	0.10 µg/m ³
NO ₂	Annual	0.10 µg/m ³

- (b) If the above requirement is not satisfied, the owner or operator must also show that the increased source impacts (above Baseline Concentration) plus Competing PSD Increment Consuming Source Impacts are less than the PSD increments for all averaging times
- (c) A single source impact analysis will be sufficient to show compliance with standards if modeled impacts from the source being evaluated are demonstrated to be less than the impact levels specified in OAR 340-200-0020, Table 1 for all pollutants.
- (d) If the requirement of (42)(a) is not satisfied, and background monitoring data for each PSD Class I area shows that the NAAQS is more controlling than the PSD increment then the source must also demonstrate compliance with the NAAQS by showing that their total modeled impacts plus total modeled Competing NAAQS Source Impacts plus General Background Concentrations are less than the NAAQS for all averaging times.

Stat. Auth.: ORS 468.020

Stats. Implemented: ORS 468A

Hist.: DEQ 6-2001, f. 6-18-01, cert. ef. 7-1-01

340-225-0090

Requirements for Demonstrating a Net Air Quality Benefit

Demonstrations of net air quality benefit for offsets must include the following:

- (1) Except as provided in section (4) of this rule, if divisions 222 or 224 require a demonstration of a net air quality benefit for offsets, the owner or operator must demonstrate that:
- (a) Within a designated ~~nonattainment area or maintenance area~~ for pollutants other than ozone, offsets for PM10, sulfur dioxide, carbon

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monoxide, nitrogen dioxide, lead, and other pollutants may be from inside or outside the nonattainment or maintenance area. Emission offsets for new or modified sources in a nonattainment area must come from sources located within the same nonattainment area and must be at least one-for-one and sufficient to demonstrate reasonable further progress. These emission offsets must provide for a net air quality benefit, and must show an actual improvement in air quality as demonstrated by the modeling analysis. The demonstration must show that there will be a reduction in modeled levels at a majority of modeling receptors and impacts below the significant air quality impact levels at all other receptors. The Department may also require that air quality modeling be conducted according to the procedures specified in this division for this demonstration.

- (b) Within an ozone nonattainment or maintenance area, owners or operators of sources (where required by divisions 222 or 224) that emit VOC or nitrogen oxides must provide pollutant-specific emission reductions at a 1.1 to 1 ratio (i.e., demonstrate a 10% new reduction). Offsets for VOC and nitrogen oxides must be within the same nonattainment or maintenance area as the proposed source, or from upwind nonattainment areas if emissions from those areas impact the area in which the new or modified source is locating, and the classification of the upwind area is equal to or more serious than the area in question. The offsets must be appropriate in terms of short term, seasonal, and yearly time periods to mitigate the impacts of the proposed emissions.
- (c) Outside a designated ozone nonattainment or maintenance area, for VOC and NOx:
 - (A) For sources with permit applications deemed complete before January 1, 2003-2004 that are capable of impacting the nonattainment area or maintenance area and have proposed emissions increases above the Significant Emission Rates for VOCs or NOx occurring since the baseline year or the date of the last PSD approval: Owners or operators of such sources within 30 kilometers of an ozone nonattainment area or ozone maintenance area shall provide reductions that are equivalent or greater than the proposed emission increases, unless the applicant demonstrates that the proposed emissions will not impact the nonattainment area or maintenance area.
 - (B) For sources with permit applications deemed complete on or after January 1, 2003-2004 that are capable of impacting the nonattainment area or maintenance area and have proposed emissions increases above the Significant Emission Rates for VOCs or NOx occurring since the baseline year or the date of the last PSD approval: Owners or operators of such sources within 100 kilometers of an ozone nonattainment or maintenance areas that emit VOC or nitrogen oxides must provide offsets for both VOC and NOx within the nonattainment or maintenance area in the following amounts: required offset = [PSEL increase over the netting basis -- $((40/30) * d)$ tons per year, where "d" is the distance the source is from the nonattainment or maintenance

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area in kilometers. VOC and NOx emissions from sources more than 100 kilometers from the area are not deemed to impact the nonattainment or maintenance area.

- (d) Outside a designated nonattainment area or maintenance area, for pollutants other than VOC, Owners or operators of proposed sources or modifications, must demonstrate that the pollutants will not have a significant air quality impact on the nonattainment area or maintenance area or must provide emission offsets sufficient to reduce impacts to levels below the significant air quality impact level within the nonattainment area or maintenance area. This demonstration may require that air quality modeling be conducted according to the procedures specified in this division; and
- (e) In the Medford-Ashland AQMA, emissions offsets for PM10, must provide reductions in PM10 emissions equal to 1.2 times the emissions increase from the new or modified sources.
- (2) The emission reductions must be of the same type of pollutant as the emissions from the new source or modification. Sources of PM10 must be offset with particulate in the same size range.
- (3) The emission reductions must be contemporaneous, that is, the reductions must take effect before the time of startup but not more than two years before the submittal of a complete permit application for the new source or modification. This time limitation may be extended through banking, as provided for in OAR 340 division 268, Emission Reduction Credit Banking. In the case of replacement facilities, the Department may allow simultaneous operation of the old and new facilities during the startup period of the new facility, if net emissions are not increased during that time period. Any emission reductions must be federally enforceable at the time of the issuance of the permit.
- (4) Special Requirements for Medford Maintenance Area for Ozone. Requirements for NOx offsets in Section (1) of this rule do not apply to proposed sources or modifications located in or near this area.
- (5) Offsets required under this rule must meet the requirements of Emissions Reduction Credits in OAR 340 division 268.

[NOTE: This rule is included in the State of Oregon Clean Air Act Implementation Plan as adopted by the EQC under OAR 340-200-0040.]

Stat. Auth.: ORS 468.020

Stats. Implemented: ORS 468A.025

Hist.: DEQ 25-1981, f. & ef. 9-8-81; DEQ 5-1983, f. & ef. 4-18-83; DEQ 8-1988, f. & cert. ef. 5-19-88 (and corrected 5-31-88); DEQ 22-1989, f. & cert. ef. 9-26-89; DEQ 27-1992, f. & cert. ef. 11-12-92; DEQ 4-1993, f. & cert. ef. 3-10-93; DEQ 12-1993, f. & cert. ef. 9-24-93; Renumbered from 340-020-0260; DEQ 19-1993, f. & cert. ef. 11-4-93; DEQ 4-1995, f. & cert. ef. 2-17-95; DEQ 26-1996, f. & cert. ef. 11-26-96; DEQ14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-028-1970; DEQ 14-1999, f. & cert. ef. 10-14-99, Renumbered from 340-030-0111; DEQ 6-2001, f. 6-18-01, cert. ef. 7-1-01, Renumbered from 340-224-0090 & 340-240-0260

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Attachment B
Advisory Committee Membership List

Grants Pass Air Quality Advisory Committee
(as of September 18, 2001)

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Advisory Committee Membership List

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Attachment B
Advisory Committee Membership List

Klamath Falls PM10 Committee Members:

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Bill Hunt – Danny Benson	ODF, 3200 Delap Rd., KFO 97601	883-5681	Oregon Department of Forestry
Stan Meyers – Patty Richardson	Jeld-Wen, P.O. Box 1329 (3250 Lakeport Blvd.), KFO 97601	883-3373 885-7420x720	Major Industry
Ted DeVore	Collins Products, LLC, PO Box 16, KFO 97601	885-3236	Major Industry
Robert Flowers	P.O. Box 224, Midland, OR 97634	883-2069	Agriculture
Ron Eichelkraut – Don Romano	Klamath County Fire District #1, 143 N. Broad St., KFO 97601	885-2056	State Fire Martial
Jim Carpenter	658 Front St., KFO 97601	885-5450 fax 885-5462	Individual Concern Hm 884-1079
John Yarbrough	3944 Jana Dr., KFO 97603	882-9529	Environmental
Mavis McCormic	1815 Van Ness St., KFO 97601	883-8410	Civic Organization
Dr. Rick Zwartverwer	2310 Mountain View Blvd., KFO 97601	883-3591	Medical Professional
Jim Gillam	12119 Lupine Lane KFO 97603	882-5196	Chimney Sweep
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LouEllyn Kelly	SOCO Development, Inc., P.O. Box 127 (2115 Orchard Ave.), KFO 97601	882-1869	Former AQ Director
Jeff Ball	City Administration Bldg., 500 Klamath Ave., KFO 97601	883-5316	City Government
Bob Doran	Oregon Department of Transportation - District Office – 2557 Altamont Dr. KFO 97603	883-5662	ODOT

Attachment C
Presiding Officer's Report on Public Hearings

State of Oregon
Department of Environmental Quality

Memorandum

Date: August 26, 2002

To: Environmental Quality Commission

From: Larry Calkins, Air Quality Specialist

Subject: Presiding Officer's Report on Public Hearings

1. Hearing Date and Time: June 25, 2002, scheduled from 4:30 PM to 6:00 PM
Formal Testimony opened 4:58 PM and closed 5:04 PM
Hearing Location: Klamath Falls City Hall, Council Chambers
500 Klamath Avenue
Klamath Falls, OR 97601
2. Hearing Date and Time: July 15, 2002, scheduled from 4:30 PM to 6:00 PM
Formal Testimony opened 5:15 PM and closed 5:21 PM
Hearing Location: Grants Pass, Josephine County Courthouse
500 NW 6th Room 157
Grants Pass, OR

Title of Proposal: Grants Pass and Klamath Falls PM₁₀ Maintenance Plans and Redesignation Requests

Both rulemaking hearings on the above titled proposal were convened and closed at the times and locations listed above. DEQ staff members serving as hearings officers were Larry Calkins (Klamath Falls) and Keith Tong (Grants Pass). The hearing officers explained the proposed rules and answered questions. People were asked to sign registration forms if they wished to present comments. People were also advised that the hearing was being recorded. A total of nine people attended the hearings: five in Klamath Falls and four in Grants Pass. Four written comments were submitted before the close of the public comment period, which was July 18, 2002.

Summary of Oral Testimony

The following oral comments were received during the hearings:

A. Klamath Falls Hearing - June 25, 2002

There was no oral testimony at this hearing.

B. Grants Pass Hearing - July 15, 2002

There was no oral testimony given at this hearing.

Summary of Written Testimony

The full written comments are attached to this report:

1. George Meyer, Private Citizen, Klamath Falls, OR

Mr. Meyer is concerned about the health effects of particulate matter 2.5 microns and less in size (PM_{2.5}). He urges "emphasis be placed on restricting new sources of" PM_{2.5}. He states "the PM₁₀ standard is outmoded". He suggests DEQ include PM_{2.5} in the air quality (industrial) rules. Much of his concern centers around a city proposal for a natural gas-fired electrical generation facility planned outside of but adjacent to the city limits. He acknowledged these natural gas plants produce few particulates. However, any particulates produced by these plants "are less than one micron in size" and impact health. He asks the city to protect the residents' health by reducing PM_{2.5} emissions from the electrical generation facilities. He states that the second plant may again cause Klamath Falls to violate air quality standards.

2. Jeffrey D. Ball, City Manager, Klamath Falls, OR

Mr. Ball generally supports the plan and rules. He appreciated the Department's work on the plan and the movement toward removing the community's nonattainment status.

3. Debra M. Suzuki, Environmental Engineer, Office of Air Quality Region 10 EPA, Seattle, WA

Ms. Suzuki stated EPA appreciated all of the Department's efforts and forethought on the maintenance planning. She offered a general comment on the maintenance plans, and comments to clarify the accompanying industrial New Source Review Rules (NSR). Ms. Suzuki asked DEQ to submit a summary of how the maintenance plans meet EPA requirements. She also suggested specific language to help clarify the rules and meet specific concerns EPA has. EPA is concerned that both the Prevention of Significant Deterioration (PSD) increment and the National Ambient Air Quality Standards (NAAQS) be protected. Additionally, EPA wants assurances in the rules that emission offsets obtained in a nonattainment area are from a source located within the same nonattainment area. Other minor revisions related to Divisions 222, 224 and 225 were also suggested.

4. David S. Hill, Executive Vice President, Southern Oregon Timber Industries Association (SOTIA), Medford, OR

Mr. Hill supported the PM10 maintenance plans including the proposed changes to the industrial NSR rules. He stated the changes will allow for industrial growth that is critical to the regional economy and will improve air quality in the region. Mr. Hill states Best Available Control Technology (BACT), one of the changes, is probably similar to Lowest Achievable Emission Rate (LAER) control technologies and offers similar emission control for timber product facilities. SOTIA also strongly supports the exemption to the offset requirements for new or expanding industry. Offsets have been a large impediment to industrial growth in these communities. It has been difficult for industrial sources in this region to obtain credits to use as offsets, and the exemption from offsets will eliminate this impediment.

Attachment C
Presiding Officer's Report on Public Hearings
Complete Set of Comments

1. George Meyer, Private Citizen, Klamath Falls, OR

Mr. Mayor, honorable City Council members, City Manager Ball, Mr. ___ (DEQ hearing officer):

Pertinent to air quality rules for Klamath Falls, I urge that emphasis be placed on restricting new sources of ambient particulates smaller than 2.5 microns. These particles are the ones that are small enough to enter and provoke damage within the pulmonary alveoli. The PM10 standard is outmoded due to this fact. The city of Klamath Falls should tailor its air quality plan in a way that compels local decision makers to consider the EPA's future proposed national PM2.5 standard when considering the siting of a second natural gas-fired electrical generation facility adjacent to the city. While this type of power plant produces far fewer particulates than coal or diesel facilities, all of the particulates it does produce are less than one micron in size, making them hazardous to the health of local residents. In addition to the direct impact to public health, a second gas-fired generator also would hasten the day when Klamath Falls is again 'out of attainment' for air quality, particularly when a PM2.5 standard is initiated.

The city should protect its public image and the health of its residents by being proactive in its air quality plan, through curbing PM2.5 and by preparing to lead by example when it comes to maintaining a healthy environment. The possible cost to public health warrants full consideration along with the other risks associated with building a second gas-fired power plant. Now is the time to ensure that it does.

Sincerely,

George Meyer
921 Loma Linda Dr.
Klamath Falls, OR 97601
541-882-3928 mcyermurp@hotmail.com

"The siting of any combustion powered electrical generating facility by the city shall be contingent upon public deliberation of the possible health risks to local residents posed by the PM2.5 resulting from its operation, using the best information available at the time of the deliberations." 6/25/02

2. Jeffrey D. Ball, City Manager, Klamath Falls, OR



CITY OF KLAMATH FALLS, OREGON
500 KLAMATH AVENUE - P.O. BOX 237
KLAMATH FALLS, OREGON 97601



June 27, 2002

Larry Calkins
DEQ
2146 N. E. 4th . #104
Bend, OR 97701


Re: Klamath Falls PM₁₀ Maintenance Plan

Dear Larry:

On behalf of the City, I would like to express my appreciation for the work you and the Department have done on the plan, as well as, with the process to move the community out of non-attainment status.

Please feel free to enter this letter in public testimony.

Sincerely,


Jeffrey D. Ball
City Manager

JDB:edo

RECEIVED

JUL 09 2002

Eastern Region - Bend

Mayor, Council & City Manager
541.883.5316

City Attorney
541.883.5323

Finance Director
541.883.5316

TTY 541.883.5324 (Hearing Impaired); Fax 541.883.5399

3. Debra M. Suzuki, Environmental Engineer, Office of Air Quality Region 10 EPA,
Seattle, WA



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue
Seattle, WA 98101

Reply To
Att Of: OAQ-107

JUL 17 2002

Mr. Larry Calkins
Oregon Department of Environmental Quality
2146 NE 4th, #104
Bend, OR 97701

Re: EPA's Comments on the Proposed PM10 Maintenance Plans for Grants Pass and Klamath Falls

Dear Mr. Calkins:

Thank you for the opportunity to review and comment on ODEQ's proposed PM10 Maintenance Plans for Grants Pass and Klamath Falls. We really appreciate all of ODEQ's efforts and forethought in the area of maintenance planning. While we do not have any specific comments on the maintenance plans themselves, we do have one general comment (see the end of the letter) and a few comments on the accompanying PSEL/NSR rules. Our comments on these rules follow:

DIVISION 222 STATIONARY SOURCE PLANT SITE EMISSION LIMITS

Section 340-222-0041 Source Specific Annual PSEL

Subsection (3)(b)(B)(iii): This subsection must also ensure the protection of the NAAQS. We recommend revising the subsection to read, "For carbon monoxide, demonstrate that the source or modification will not cause or contribute to: a) an air quality impact equal to or greater than 0.5 mg/m³ (8-hour average) and 2 mg/m³ (1-hour average) or b) an exceedance of the NAAQS. All demonstrations must comply with the requirements of OAR 340-225-0045; or".

Subsection (3)(b)(B)(iv): This subsection must also ensure the protection of the PSD increment and the NAAQS. We recommend revising the subsection to read, "For PM10, demonstrate that the source or modification will not cause or contribute to: a) an air quality impact in excess of: (I) 120 ug/m³ (24-hour average) or 40 ug/m³ (annual average) in the Grants Pass PM10 maintenance area, (II) 140 ug/m³ (24-hour average) or 47 ug/m³ (annual average) in the Klamath Falls PM10 maintenance area; b) an exceedance of the PSD increment; or c) an exceedance of the NAAQS. All demonstrations must comply with the requirements of OAR 340-225-0045."

In Section 340-225-0045, ODEQ did a good job of correctly requiring sources to demonstrate compliance with the maintenance area-specific limits as well as the NAAQS and PSD increments. Therefore, the recommendations for Subsections (3)(b)(B)(iii) and (iv) described above would make the rules internally consistent.

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Eastern Region - Bend

DIVISION 224 MAJOR NEW SOURCE REVIEW

Section 340-224-0060 Requirements for Sources in Maintenance Areas

Subsection (3): Carbon monoxide demonstrations should also meet the requirements in OAR 340-225-0050 (1) and (2) and OAR 340-225-0060. Therefore, this subsection should read, "... source subject to subsections 2(c) or 2(d) of this rule ...".

The last subsection needs to be renumbered from (5) to (6).

DIVISION 225 AIR QUALITY ANALYSIS REQUIREMENTS

Section 340-225-0020 Definitions

Subsection (8): Indicate in the second and third sentences that the concentrations listed are for PM10. The fourth sentence should read, "The Department may ~~allow the source to~~ adjust the future year ..." DEQ should be adjusting the concentrations, not the sources. The last sentence states that the methodology to adjust the future year concentration is found in the applicable maintenance plan. We could not find this methodology in the proposed maintenance plans and therefore we could not fully comment on this provision. We also recommend putting this methodology in rule rather than in the plans so that it is more accessible to the public. We also suggest changing the term "maintenance baseline concentration" to "predicted maintenance area concentration" to reflect the fact that it is a projected future concentration rather than something set in the past and to further distinguish it from PSD "baseline concentrations".

Section 340-225-0045 Requirements for Analysis in Maintenance Areas

The opening sentence should read: "For determining compliance with the limits established in OAR 340-224-0060(2)(c) and (2)(d) and OAR 340-222-0041(3)(b)(B)(iii) and (3)(b)(B)(iv) and the NAAQS and PSD increments, the following methods must be used:"

Subsection (2)(a): This subsection should read, "For demonstrating compliance with the maintenance area limits established in OAR 340-224-0060(2)(c) and (2)(d) and OAR 340-222-0041(3)(b)(B)(iii) and (3)(b)(B)(iv), the owner or operator ...".

Section 340-225-0050 Requirements for Analysis in PSD Class II and Class III areas

Subsection (4): Is the reference to division 222 being deleted because there are no references to Section 340-225-0050(4) in division 222?

Section 340-225-0090 Requirements for Demonstrating a Net Air Quality Benefit

Subsection (1)(a): Section 173(c)(1) of the Clean Air Act states that, "The owner or operator of a new or modified major stationary source may comply with any offset requirement in effect under this part for increased emissions of any air pollutant only by obtaining emission reductions of such air pollutant from the same source or other sources in the same nonattainment area." Therefore, emission offsets for new or modified sources in a nonattainment area must get the offset from a source located within the same nonattainment area. We recommend revising beginning of the subsection to read, "Within a designated nonattainment area or maintenance area for pollutants other than ozone, offsets for PM10, sulfur dioxide, carbon monoxide, nitrogen

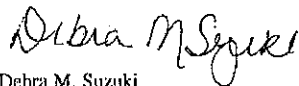
dioxide, lead, and other pollutants may be from inside or outside the nonattainment or maintenance area. Within a designated nonattainment area for pollutants other than ozone, offsets for PM10, sulfur dioxide, carbon monoxide, nitrogen dioxide, lead, and other pollutants must come from sources located within the same nonattainment area and must be at least one-for-one and sufficient to demonstrate reasonable further progress"

General - PM10 Maintenance Plans for Grants Pass and Klamath Falls

As part of the SIP submittal package for these maintenance plans, we would like ODEQ to provide a summary of how the maintenance plans meet EPA requirements, such as the requirements found in the John Calcagni memo of September 4, 1992 on Procedures for Processing Requests to Redesignate Areas to Attainment. We have attached an example from the Draft Boise PM10 Maintenance Plan that shows what we would like the summary to include. This summary would help us in reviewing the plans and is what we will be asking of States as part of the SIP Process Improvement Project (SIP PIP).

Again, thank you for the opportunity to comment. If you have any questions regarding these comments, please contact me at (206)553-0985.

Sincerely,



Debra M. Suzuki
Environmental Engineer
Office of Air Quality

Attachment

July 2002

Attachment

ENVIRON

2.4 Applicable EPA Guidance Documents

The following guidelines and policy memos published by the EPA were consulted and followed in the process of developing the Northern Ada County PM₁₀ Maintenance SIP.

John Calcagni memo of September 4, 1992 on Procedures for Processing Request to Redesignate Areas to Attainment

This policy guidance expands upon each of the five criteria discussed in the previous section under Section 107(d)(3)(E). Rather than repeating that discussion, the following will highlight some of the more relevant discussion from the Calcagni policy memorandum.

The demonstration that the area has attained the PM₁₀ NAAQS involves submittal of ambient air quality data from an ambient air monitoring network representing peak PM₁₀ concentrations. The data also should be recorded in the Aerometric Information Retrieval System (AIRS). The area must show that the average annual number of expected exceedances is less than or equal to 1.0. Sec 40 CFR §50.6. The data must represent the three consecutive years of complete ambient air quality monitoring data collected in accordance with EPA methodologies. The Boise Maintenance SIP meets these criteria. For more specific documentation, please refer to Section 3 of this document.

The policy discusses options for obtaining a fully approvable SIP under Section 110(k). It notes that an area can have its SIP approved and simultaneously be redesignated to attainment if the air quality data is satisfied. However, if an element of the SIP is disapproved, failed to be submitted, or partial/conditional/limited in its approvability, redesignation cannot move forward until the deficiency is corrected. Use of dispersion techniques that are inconsistent with EPA guidance will continue to be considered unapprovable and not qualify for redesignation.

The requirements of the memorandum for Permanent and Enforceable Improvement in Air Quality are discussed in Section 5.3 of this document.

The Calcagni memorandum explains that for redesignation purposes a State must meet all of the applicable Section 110 and Part D planning requirements. Thus, before EPA may approve a redesignation request, the applicable programs under Section 110 and Part D, that were due prior to the submittal of a redesignation request, must be adopted by the State and approved by EPA into the SIP. EPA reviewed these in determining in that the Northern Ada County PM₁₀ SIP revision was approvable on May 30, 1996 (61 FR 27019).

Finally, Section 107(d)(3)(E) of the amended Act stipulates that for an area to be redesignated to attainment, EPA must fully approve a maintenance plan which meets the requirements of Section 175A. Section 175A defines the general framework of a maintenance plan, which must provide for maintenance of the relevant NAAQS in the area for at least 10 years after redesignation. Furthermore, Idaho is required to submit a revised SIP eight years after the redesignation is approved. This new SIP must provide for maintenance of the standard for an additional 10 years following the first 10-year period (Section 175A(b)). Although Section 107(d)(3)(D) grants the EPA 18 months to act on a redesignation request, the Settlement Agreement reduces this to 12 months in the Northern Ada County situation.

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July 2002

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The Calcagni memorandum lists 5 core provisions that are necessary in the Maintenance SIP to ensure maintenance of the NAAQS in the area proposed for redesignation to attainment. As they are discussed and responded to in more detail elsewhere in this document, they are merely listed here for reference.

- Attainment Emissions Inventory
- Demonstration of Maintenance
- Appropriate Monitoring Network
- Verification procedures of Continued Attainment
- Contingency Plan and Measures

The following EPA Guidance documents refer to PM₁₀ SIP development and were followed, when appropriate, in developing this Maintenance SIP.

June, 1987 PM₁₀ SIP Development Guideline

This document was EPA's initial guidance on developing PM₁₀ control programs to attain and maintain the newly promulgated PM₁₀ NAAQS. It addressed the transition that States needed to make from the early Total Suspended Particulate SIP control programs to strategies that accounted for PM₁₀. This guidance was used by IDEQ in drafting the original PM₁₀ SIP for Northern Ada County in 1990, and the October 1991 final SIP submittal. As this guidance was based on the existing, 1977 CAA, more recent guidance and policy memoranda pertaining to the current CAA has made this document of limited value in developing the 2002 Maintenance SIP.

September 23, 1987 Memorandum from J. Craig Porter, Thomas L. Adams Jr., and Francis S. Blake, "Review of State Implementation Plans and Revisions for Enforceability and Legal Sufficiency"

In addition to relative sections of the various Federal CAA [Section 110(a)(2)(A) and Section 172(c)(6)] and regulations in 57 FR 13541, 13556, a key policy memorandum was issued on September 23, 1987 by EPA regarding the enforceability of control measures contained in SIPs. Its focus was on stationary sources and concerned the writing of such control measure implementing regulations to be fully enforceable by the State agencies. With emphasis on involvement by the EPA regional offices prior to SIP submittal, it initiated a greatly expanded effort to review new SIP regulations for enforceability. Extensive guidelines were provided with this policy memorandum.

September, 1994 PM₁₀ Emission Inventory Requirements

This document describes the emission inventory requirements that are contained, either explicitly or implicitly, in the 1990 CAA for those areas that are required to submit a State Implementation Plan (SIP) for demonstrating attainment of the National Ambient Air Quality Standard (NAAQS) for PM₁₀. The guidance in this document pertains to PM₁₀ in moderate nonattainment areas and to areas that have been reclassified as serious nonattainment areas. The purposes of the document are to (1) identify the types of inventories required; (2) briefly review the regulatory requirements pertaining to submission of these inventories; (3) describe the objectives, components, and ultimate uses of the inventories; and (4) define documentation and reporting requirements for the inventories.

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April, 1999 Emission Inventory Guidance for Implementation of Ozone and Particulate Matter NAAQS

The purpose of this guidance document is to define required elements of emission inventories necessary to meet State Implementation Plan (SIP) requirements for complying with the 8-hour ozone national ambient air quality standard (NAAQS), the revised particulate matter NAAQS and the regional haze regulations. For the particulate matter NAAQS, the emphasis in this guidance is on particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers (PM_{2.5}). However, the earlier PM₁₀ (particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers) NAAQS is still in effect and, therefore, States should continue to inventory PM₁₀ as well. The required elements include those for compiling and reporting the emission inventories to the EPA.

2.5 Settlement Agreement between Idaho Clean Air Force et al and U.S. EPA

In 1997, EPA promulgated new particulate matter rules nationwide. These rules were designed to tighten particulate matter standards to better protect public health. With these new rules in place, EPA developed rules and guidance that allowed states to "transition" from the old (pre-existing) PM₁₀ standard to the new, assuming an area had three years of clean data and met other specified requirements. At the request of local transportation planners, DEQ chose to pursue the option of adopting the new PM₁₀ standards early, and having the non-attainment designation, based on the old standards, revoked. This would mean that transportation conformity would no longer apply for PM₁₀ in Ada County, and transportation planning could move forward.

Ada County met the criteria for transition to the new standards, and the state submitted the necessary documentation to EPA to remove the pre-existing standard. The EPA took final action on March 12, 1999, declaring that the pre-existing PM₁₀ standard no longer applied to Ada County Idaho. This action also removed Ada County's non-attainment status and transportation conformity requirements.

Soon after declaring that the previous PM₁₀ standard no longer applied in Ada County, a U.S. Court of Appeals ruling undermined the basis for EPA's determination on the applicability of the pre-existing PM₁₀ standards. The court vacated the revised PM₁₀ standard, which had served as the underlining basis for removing the pre-existing standard in Ada County. This left the county with no federal PM₁₀ standard in place, although State standards still applied. Ada County became the only county in the nation without a federal PM₁₀ standard. It currently has no designation in regards to PM₁₀ attainment.


The Idaho Clean Air Force (ICAF), a local community group, with the support of the Environmental Defense Fund (EDF), then sued EPA, and asked the courts to reinstate the pre-existing PM₁₀ standard in Ada County. Reinstatement of the standard would likely reinstitute the non-attainment designation and the associated transportation conformity requirements.

The Department of Environmental Quality and the Community Planning Association of Southwest Idaho (COMPASS) worked with EPA, ICAF and EDF to attempt to reach a settlement agreement. The parties to the lawsuit reached a settlement in January 2001. The

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4. David S. Hill, Executive Vice President, Southern Oregon Timber Industries Association (SOTIA), Medford, OR



Southern Oregon Timber Industries Association

2580 North Pacific Highway Medford Oregon 97501 773 9329 FAX 773-1991

July 18, 2002

This FAX contains two (2) pages only.

Oregon Environmental Quality Commission
C/O Oregon Department of Environmental Quality
Attn: Larry Calkins
2146 NE 4th - #104
Bend, Oregon 97701

RE: Grants Pass and Klamath Falls PM10 Maintenance Plans Proposed Rules

Dear Mr. Calkins:

Southern Oregon Timber Industries Association (SOTIA) is a 95-member company Association of businesses directly and/or indirectly involved in the growing, harvesting and manufacturing of wood products. SOTIA supports the adoption of the PM10 maintenance plans for the Grants Pass and Klamath Falls Urban Growth Boundary areas including the proposed changes to Oregon Department of Environmental Quality Rules in Divisions 200, 204, 222, 224 and 225.

SOTIA believes the proposed Rule changes will allow for industrial growth that is critical to the regional economy. We also believe the Rule changes will maintain or improve air quality in the region. The proposed Rules appropriately focus attention not on the point sources but the area and mobile sources that account for over 60% of the PM10 emissions in Grants Pass and Klamath Falls.

SOTIA strongly supports the changes to the industrial point source Rules. Under the proposed Rules, new and/or expanding industry will be required to install BACT emissions control technology rather than LAER emissions control technology. Some may view this as backsliding on industrial pollution control requirements. However, within the wood products industry in southern Oregon, BACT and LAER Control technologies are probably the same. For example, 10 years ago, electrostatic precipitators (ESPs) were considered LAER on wood-fired boilers. Today, ESPs would likely meet the BACT requirement for wood-fired boilers.

SOTIA also strongly supports the proposed exemption to the offset requirement for new and/or expanding industry. The requirement for offsets has been one of the single biggest impediments to industrial growth in the Klamath Falls, Medford, Grants Pass area. Conceptually, the offset program makes sense because the industries that shut down could sell their emissions credits to new or expanding industries. This means no

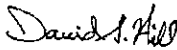
Mr. Larry Calkins
PM10 Maintenance Plans Proposed Rules

Page 2

net increase in industrial PM10 emissions within the region. Unfortunately, most wood products mill facilities that closed down either did not properly bank their credits or were unable to find buyers at the time they closed. Thus, the offset credits were retired from the air sheds without any way to revive them if a manufacturing opportunity arose. Even Oregon legislative attempts in 2001, (SB 948), could not create a viable mechanism for creating and controlling an offset bank for future industrial expansion.

Southern Oregon Timber Industries Association encourages the Oregon Environmental Quality Commission to adopt the proposed Environmental Quality Rule changes as proposed. We thank you for this opportunity to comment.

Sincerely,



David S. Hill
Executive Vice President

Attachment D
Department Response to Public Comment

State of Oregon
Department of Environmental Quality

Memorandum

Date: August 23, 2002

To: Environmental Quality Commission
From: Larry Calkins, Air Quality Specialist
Subject: Department's Response to Public Comments

Grants Pass and Klamath Falls PM₁₀ Maintenance Plans and Redesignation Requests

Public hearings for the proposed PM₁₀ Maintenance Plans and Redesignation Requests took place in Klamath Falls on June 25th, and in Grants Pass on July 15th. A total of nine people attended the hearings, but no oral testimony was provided. Four written comments were received by the Department prior to the comment deadline of July 18th. The Presiding Officer's Report on Public Hearings including actual comments is in Attachment C.

The following represents a summary of comments received, followed by the Department's response. There were no changes made to the maintenance plans as a result of the comments received. However, there were minor revisions to the proposed industrial New Source Review rules based on the comments received, as indicated below.

1. George Meyer, Private Citizen, Klamath Falls, OR

Comment

Mr. Meyer's believes the Department should be addressing PM_{2.5} in this rulemaking instead of PM₁₀. He is also concerned about PM_{2.5} emissions from a proposed city owned natural gas-fired power plant in Klamath Falls. He requested the City of Klamath Falls control PM_{2.5} emissions from their facilities and indicated that the Department should address PM_{2.5} for industrial sources of emissions.

Response

The proposed Klamath Falls Maintenance Plan and associated industrial rule revisions address PM₁₀ because of past violations of the PM₁₀ standard, and are needed in order to be redesignated to attainment. The PM_{2.5} NAAQS was adopted in 1997 with a specific implementation timeline. The Department is currently in compliance with EPA's timeline and is collecting PM_{2.5} monitoring data around the state. DEQ will be providing EPA with this data for future nonattainment and attainment designations. It should be noted that while it is premature to adopt PM_{2.5} emission reduction measures at this time, the PM₁₀ programs

being continued under the maintenance plans (e.g. woodstove and open burning emission reduction strategies) will be effective in reducing PM_{2.5} emissions. The emissions from the city-owned co-generation facility are regulated under an air permit issued by the Department. There is no basis for reducing the PM_{2.5} emissions from this facility at this time. Even though the focus of the rulemaking is PM₁₀, Klamath County has drafted an ordinance addressing woodstoves and open burning as a pollution prevention strategy, which will help reduce PM_{2.5}. This ordinance is part of the maintenance plan.

2. Jeffrey D. Ball, City Manager, Klamath Falls, OR

Comment

Mr. Ball, representing the City of Klamath Falls, expressed appreciation for the Department's work on the maintenance plans and the effort toward removing the community's PM₁₀ non-attainment status.

Response

The Department acknowledges the comment.

3. Debra M. Suzuki, Environmental Engineer, Office of Air Quality Region 10 EPA, Seattle, WA

Comment

Ms. Suzuki indicated that stated EPA supports the Department's maintenance planning. She offered comments to clarify requirements in the industrial New Source Review Rules, and to make them internally consistent.

Response

The Department made changes based on EPA's comments to Divisions 222, 224, and 225. These changes are for clarification and consistency purposes only, and not considered substantive. Specific changes made to these rules are as follows:

DIVISION 222

EPA asked the Department to address PSD increment and the National Ambient Air Quality Standards (NAAQS) to assure that these federal requirements are protected and that the rule language is consistent. The Department will address EPA's comment and include the PSD increment and the NAAQS requirements and ensure the rules use consistent language. EPA's specific suggestions to remedy this concern included a number of different references that were not necessary to accomplish the goal. Instead, we have revised OAR 340-222-0041, by replacing (3)(b)(iii) and (iv) with the following:

"(3)(B)(iii) Demonstrate compliance with the air quality impact levels in OAR 340-224-0060(2)(c) and (2)(d), whichever applies to the maintenance area, by conducting an air quality analysis in accordance with OAR 340-225-0045."

The Department also changed the lead-in statement for 340-225-0045 by adding "PSD Increments and NAAQS" for consistency.

DIVISION 224

EPA stated that carbon monoxide demonstrations should also meet analysis requirements. The Department made the EPA suggested change by adding "2(c) or" back into OAR 340-224-0060 and changed (5) to (6).

DIVISION 225

EPA suggested modifying the language defining the predicted maintenance area concentration and EPA could not find applicable methodologies to adjust the concentration. The Department removed "allow the source to" to address EPA's comment. We also changed the term "maintenance baseline concentration" to "predicted maintenance area concentration" as EPA suggested. We also removed the adjustments to the "predicted maintenance area concentration" because there was a question as to the legal nature of the adjustment in a permit action. We determined that we would revisit the numerical values associated with the "predicted maintenance area concentration" in approximately eight years when the plans are updated.

EPA suggested referencing the PSD increment and NAAQS in this Division. The changes to OAR 340-225-0045 are no longer necessary since the change has been made to Division 222. Therefore, we accept EPA's comment but did not make the suggested changes to this rule.

Per EPA's question, DEQ deleted the reference because there are no references to Section 340-225-0050(4) in division 222.

The Department agrees with EPA's comment on the need to clarify that offsets in a nonattainment area come from within the same nonattainment area. Revisions were made to 340-225-0090 accordingly.

SUMMARY OF MAINTENANCE PLANS

As requested by EPA, the Department will prepare a summary of how the maintenance plans meet EPA's requirements when the maintenance plans are submitted to EPA.

4. David S. Hill, Executive Vice President, Southern Oregon Timber Industries Association, Medford, OR

Comment

Mr. Hill, representing the Southern Oregon Timber Industries Association (SOTIA), expressed SOTIA's strong support for the Department's plans and rule changes. He explained that the rule changes will allow for industrial growth that is critical to the regional economy. SOTIA strongly supports using BACT rather than LAER and the exemption from offsets for new and expanding industry.

Response

The Department acknowledges the comment.

Attachment E
Questions to be Answered to Reveal
Potential Justification for Differing from Federal Requirements

1. Are there federal requirements that are applicable to this situation? If so, exactly what are they?

- Redesignation requirements: The Clean Air Act contains requirements for changing an area's status from nonattainment to attainment. Once a nonattainment area community has met certain requirements, an approved maintenance plan is required before EPA can change the area's status or redesignate the area.
- Maintenance plan requirements: The Clean Air Act requires that a maintenance plan show that a nonattainment area has met the public health standards. They must also show that the area will continue to meet the public health standards for at least ten years, continue the strategies that brought the area into attainment, and provide contingency plans in case the area violates the public health standards.
- Industrial new source review (NSR) requirements: There are no federal PM₁₀ maintenance area NSR requirements. This rulemaking adds special NSR rules for PM₁₀ maintenance areas.

2. Are the applicable federal requirements performance based, technology based, or both with the most stringent controlling?

The applicable federal requirements are performance based, requiring a maintenance plan that addresses present and future ambient concentrations. The future concentrations are compared to the federal health-based standards.

3. Do the applicable federal requirements specifically address the issues that are of concern in Oregon? Was data or information that would reasonably reflect Oregon's concern and situation considered in the federal process that established the federal requirements?

No. Oregon has generally patterned its rules after the federal ambient air quality requirements. The federal requirements are established in the Clean Air Act and do not provide for designations other than attainment or nonattainment. Oregon's NSR rules provides a precautionary maintenance area status that limits industrial growth to protect areas against exceeding standards. It provides for additional analysis that uses a 2015 predicted ambient concentration as a base to add new emission sources, and limits total emissions to a cap below the ambient air quality standard. It also requires best emission control technology that will limit emissions from medium and large-sized sources.

4. Will the proposed requirement improve the ability of the regulated community to comply in a more cost effective way by clarifying confusing or potentially conflicting

requirements (within or cross-media), increasing certainty, or preventing or reducing the need for costly retrofit to meet more stringent requirements later?

Yes. The regulated community should find the proposed industrial NSR rules more flexible, cost effective, and more certain than the current regulations, which are more restrictive because the areas are designated nonattainment. More importantly, the proposed NSR rules for maintenance areas will assure costly retrofitting will not be needed in the future.

5. Is there a timing issue which might justify changing the time frame for implementation of federal requirements?

No.

6. Will the proposed requirement assist in establishing and maintaining a reasonable margin for accommodation of uncertainty and future growth?

Yes. The proposed limits on emission increases under the PM₁₀ maintenance plans for new and expanding industry account for expected growth and provide a safety margin that protects air quality and ensures continued compliance with PM₁₀ standards over the next 10 years. The cap or limit proposed in Grants Pass and Klamath Falls is 80% and 93%, respectively, of the ambient standard. The Department allowed the advisory committees to decide at what point below the standards the caps should be set. Factors used to help each committee determine a cap included each area's growth potential and the future projected ambient concentration. In Grants Pass the projected concentration is lower than in Klamath Falls.

7. Does the proposed requirement establish or maintain reasonable equity in the requirements for various sources? (level the playing field)

Yes. The PM₁₀ maintenance plans will require continuing most of the existing emission reduction measures that resulted in attaining PM₁₀ standards. The proposed NSR industrial rules were developed to ensure that all PM₁₀ sources contribute to preventing a future violation. Without these special NSR rules, new industrial sources would be subject to the same rules that apply to new industry in areas that have not violated air quality standards and there would not be safeguards to prevent future violations. Since the existing companies have already made the control investment, new companies must make a similar investment to be equitable.

8. Would others face increased costs if a more stringent rule is not enacted?

Possibly. If less stringent rules are adopted and Grants Pass and Klamath Falls violate the PM₁₀ standards, these communities will once again become nonattainment areas and be subject to costly retrofit technology.

9. Does the proposed requirement include procedural requirements, reporting or monitoring requirements that are different from applicable federal requirements? If so, Why? What is the "compelling reason" for different procedural, reporting or monitoring requirements?

No.

10. Is demonstrated technology available to comply with the proposed requirement?

Yes. The required industrial control technology or Best Available Control Technology (BACT) is based on demonstrated technology. BACT is a federal requirement and is the result of an established procedure. Federal guidance is available to help sources determine BACT.

11. Will the proposed requirement contribute to the prevention of pollution or address a potential problem and represent a more cost effective environmental gain?

Yes. The proposed maintenance plans and related requirements are designed to maintain the PM₁₀ public health standards in these communities and prevent or regulate pollution from new sources. If these areas were to violate the standards and return to nonattainment status, more restrictive requirements would apply. The methodology proposed in these plans and rules is a cost-effective method of maintaining air quality. Controlling emissions before problems occur is more cost effective than correcting problems after they occur.

Attachment F
State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal
for

Grants Pass & Klamath Falls PM₁₀ Maintenance Plans

Fiscal and Economic Impact Statement

Introduction

The Department of Environmental Quality (Department) is proposing the Environmental Quality Commission adopt PM₁₀ maintenance plans for the Grants Pass and Klamath Falls Urban Growth Boundary (UGB) areas. PM₁₀ refers to particulate matter 10 microns and smaller. If the plans are adopted, the Department will request the Environmental Protection Agency (EPA) to redesignate these areas as "attainment". The Department is also proposing amendments to air quality permitting rules for major new or modified industrial sources of PM₁₀ locating in these areas. Some rules were also clarified such as carbon monoxide nonattainment and maintenance area designations. If adopted, the Department will submit the maintenance plans and rule amendments to EPA for approval as part of Oregon's State Implementation Plan as required by the federal Clean Air Act.

The proposed maintenance plans, redesignations, and rules will not result in significant increased costs and will remove some barriers to economic growth. The plans obligate both communities and the state to continue existing programs to control of PM₁₀ emissions. They allow for growth in PM₁₀ emissions from new and expanding industrial sources and transportation projects and establish contingency procedures to prevent or correct future violations of the PM₁₀ public health standards.

General Public

Grants Pass citizens will not see a change in fiscal or economic impact. In Grants Pass, the existing voluntary and regulatory programs to curtail wood smoke and open burning will continue.

In Klamath Falls, the maintenance plan includes more restrictive controls for open burning and early warning restrictions on woodstove and fireplace usage. Citizens may be required to dispose of garbage and debris at a landfill or local recycling center, in lieu of burning, adding disposal costs. However, the cost of disposal may be small compared to the cost to public health from breathing

smoke that would otherwise be generated by neighbors. Disposal costs at the Klamath County landfill can reach \$27 per ton of debris. The savings in health costs are unknown or difficult to quantify, but are expected to be high especially for those with respiratory problems.

Supporting educational programs and telephone advisory hotlines continue in both communities.

Small Business

In general, small businesses will not be required to change current practices. Small businesses as defined by the Administrative Practices Act are 50 or less employees and generally are less than 15 tons of PM₁₀ emissions per year. Small business in Grants Pass will not see a change because existing open burning regulations will continue. In Klamath Falls, the maintenance plan includes slightly more restrictive controls for commercial open burning. Cost increases for landfilling or alternative management of material that would otherwise have been burned will be similar to those for the general public. Most small businesses operate sources emitting less than 15 tons per year. Permitting requirements will not change for these sources. Changes in permit requirements for larger sources will likely result in reduced costs for the permittee, as described in Large Business, below.

Large Business

Costs will not change for businesses operating industrial sources emitting less than 15 tons PM₁₀ per year. Changes in permitting requirements are expected to reduce costs for businesses operating new or expanding industrial sources with PM₁₀ emissions larger than 15 tons per year locating in the Grants Pass or Klamath Falls UGB areas. Currently, industrial sources in these areas must install equipment that control emissions to the highest extent possible without regard to cost. The proposed rules will allow sources to use the best available emission control equipment and consider a cost per ton of emissions controlled when selecting the equipment. By definition, the equipment costs will either be the same or less expensive than current practice. In addition, the proposed rules allow limited PM₁₀ emissions increases from major new or expanding industrial sources in these communities. Currently, any source in these areas that wishes to increase emissions must model and obtain offsets. Under the proposed rules, sources will also be required to model potential PM₁₀ emission increases. In some cases, large businesses may be able to use modeling techniques that are less costly than current practice and meet the maintenance area requirements. If modeling shows emissions are within limits established for each maintenance area, then the source will be exempt from offsets. Being exempt from offsets is usually less expensive than obtaining required offsets.

Although the equipment costs and the modeling efforts of the company are same or less expensive, the current rules continue to require these companies to submit equipment cost analysis and modeling analysis to the Department for review and approval. The Department charges the company a one-time added permit fee to review the project based on the type and amount of review

needed. The added permit fee may be less than the fee charged for a similar analysis in a nonattainment area because the analysis requires less review. The cost savings to the company and DEQ cannot be estimated because the type and number of new emission sources and associated reviews cannot be predicted.

Local Governments

This rulemaking will not result in any direct impacts to local governments in these areas. Both Klamath County and Josephine County conduct the wood smoke curtailment programs in their communities with partial grant funding from DEQ. Josephine County enforces an open burning ordinance and assists DEQ with open burning investigations and public education. Klamath County enforces a woodstove and open burning ordinance.

Although the rulemaking expects enhanced outreach and education in Grants Pass, Josephine County will provide the enhanced response. The outreach effort in FTE by Josephine County will be the same, just addressing a larger area. DEQ provided Josephine County with increased funding to address this larger area.

Related to this rulemaking, Klamath County adopted a streamlined ordinance that requires less record keeping and is slightly more protective of air quality. Klamath County will use cost savings from less record keeping to enforce this more restrictive component of the ordinance.

Even though the focus may be slightly different, the same cost and effort will be required for each community to carry out their programs and ordinances. DEQ expects continuing partial funding to these communities to operate the programs.

DEQ

- FTE's: No additional FTE is required to carry out this rulemaking. DEQ does not expect these communities will see a significant increase in permit applications from industrial expansion as a result of the allowable increase in PM₁₀ emissions. The Department expects to process any new air quality permit applications using existing modeling and permitting staff. In addition, DEQ may require less time per permit to analyze control equipment and review modeling analyses. DEQ has not quantified cost savings.
- Revenues: Permit application fees will remain the same for new or expanding industrial sources of PM₁₀. Any new applications could increase revenues.
- Expenses: This rulemaking will not result in changes to the Department's expenses. It may be easier to issue permits for new or modified sources because of less rigorous permitting requirements.

Department of Transportation (ODOT)

- As a part of the Klamath Falls PM₁₀ maintenance plan, ODOT has committed to curtailing burning of right-of-way slash material. ODOT may experience a slight increase in expenses due to the cost of alternative waste management.
- ODOT is required to conduct transportation-related conformity determinations. The proposed rulemaking does not change the quality or number of conformity determinations required by ODOT.

Assumptions

The Department assumes the wood products industries and other sources of PM₁₀ emissions will not experience a significant revitalization in the next ten years. Economic trends over the last ten years support this assumption. According to the Oregon Employment Department, manufacturing jobs will grow at a substantially slower rate than nonmanufacturing sectors of the economy in Oregon*. It is further assumed that the Department will receive only a few permit applications each year as a direct result of this rulemaking.

Housing Cost Impact Statement

This proposed rulemaking will have no effect on the cost of development of a 6,000 square foot parcel and the construction of a 1,200 square foot detached single family dwelling on that parcel.

* "Employment Projections by Industry 2000 – 2010, Oregon and Regional Summary"; Oregon Employment Department – Workforce Analysis August 2001.

Attachment G
State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal
for
Grants Pass & Klamath Falls PM₁₀ Maintenance Plans/Redesignation Requests

Land Use Evaluation Statement

1. Explain the purpose of the proposed rules.

This rulemaking would adopt the Grants Pass and Klamath Falls PM₁₀ maintenance plans and asks EPA to designate both areas as being in attainment. This rulemaking also includes amendments to rules for permitting new sources of industrial PM₁₀ emissions larger than 15 tons a year. The amendments relax the emissions control technology requirement for new sources from Lowest Achievable Emission Rate to Best Available Control Technology, allowing the source to consider cost in selecting the best technology. The amendments allow an exemption from the current requirement to obtain offsets for all air quality impacts. To qualify for the exemption, a source must show by modeling that emission increases would not exceed defined limits.

2. Do the proposed rules affect existing rules, programs or activities that are considered land use programs in the DEQ State Agency Coordination (SAC) Program?

Yes No

a. If yes, identify existing program/rule/activity:

The Department implements the New Source Review program through an existing air quality-permitting program. New sources larger than 15 tons a year must apply for a permit. Permit applicants must obtain a land use compatibility statement from the appropriate local jurisdiction before the Department may issue a permit.

b. If yes, do the existing statewide goal compliance and local plan compatibility procedures adequately cover the proposed rules?

Yes No (if no, explain):

c. If no, apply the following criteria to the proposed rules.

In the space below, state if the proposed rules are considered programs affecting land use. State the criteria and reasons for the determination.

The New Source Review program is covered by a State Agency Coordination agreement.

3. If the proposed rules have been determined a land use program under 2. above, but are not subject to existing land use compliance and compatibility procedures, explain the new procedures the Department will use to ensure compliance and compatibility.

N/A The New Source Review program is subject to land use compliance and compatibility procedures.

[signed by Division Administrator]
Division

[signed by Intergovernmental coord]
Intergovernmental Coord.

_____ Date

Attachment H
Air Quality Program Statutory Overview

	Federal Lead	Federal Delegated	EPA Approved State Efforts	State Initiative
Ambient Air Quality Protection	<ul style="list-style-type: none"> National Ambient Air Quality Standards (CAA § 109) National Engine and Fuel Standards (CAAA Title II) 	<ul style="list-style-type: none"> New Source Performance Standards (CAA § 111; ORS 468A.025) 	<ul style="list-style-type: none"> Attainment and maintenance Plan SIPs (CAA §110 & Title I, part D; ORS 468A.035) SIP Control Strategies (CAA §110), e.g.: <ul style="list-style-type: none"> Air Contaminant Discharge Permit (ACDP) (ORS 468A.040-060) Major New Source Review (ORS 468A.025) Vehicle Inspection Program (ORS 468A.350-455) Employee commute Options (ORS 468A363) Woodstove Curtailment (ORS 468A.460-520) Reasonably Available Control Technology (ORS 468A.025) Federal Operating Permit (CAA Title V; ORS 468A.300-330) 	<ul style="list-style-type: none"> Oregon Ambient Air Quality Standards (Particle fallout, Calcium Oxide, Sulfur Dioxide) (ORS 468A.025) Growth allowances (ORS 468A.035)
Prevention of Clean Air Quality Degredation and Visibility Protection	<ul style="list-style-type: none"> Class I & II increments (CAA Title I, Part C) National Engine and Fuel Standards (CAA Title II) 	<ul style="list-style-type: none"> New Source Performance Standards (NSPS) (CAA § 111; ORS 468A.025) 	<ul style="list-style-type: none"> Visibility and Regional Haze SIPS (CAA Title I, Part C) SIP Control Strategies (CAA § 110) e.g.: <ul style="list-style-type: none"> Smoke Management, Field Burning, Open Burning (ORS 468A.550-620) Major New Source Review/PSD (ORS 468A.025) Air Contaminant Discharge Permit (ACDP) (ORS 468A.040-060) Emission Guidelines (CAA §111d; ORS 468A.025) Federal Operating Permit (Title V; ORS 468A.300-330) 	<ul style="list-style-type: none"> Prevention Plans (ORS 468A.035) Columbia River Gorge Air Quality Protection (ORS 468A.025) Nuisance, Odors, Best Work Practices Agreement (ORS 468A.025)
Air Toxics	<ul style="list-style-type: none"> List of HAPs (CAA §111b) and source categories (CAA §111c) Accidental Releases (CAA §111r) National Fuel Standards (CAA Title II) 	<ul style="list-style-type: none"> National Emissions Standards for Hazardous Air Pollutants (NESHAP) (CAA §112d; ORS 468A.025) Urban Air Toxics (CAA §112k; ORS 468A.025) 	<ul style="list-style-type: none"> Urban Air Toxics (CAA §112k; ORS 468A.025) Federal Operating Permit (CAA Title V; ORS 468A.300-330) Air Contaminant Discharge Permit (ORS 468A.040-060) 	<ul style="list-style-type: none"> State Air Toxics Program (ORS 468A.025) Clean Diesel Initiative
Asbestos		<ul style="list-style-type: none"> Asbestos NESHAP (§112; ORS 468A.025 & 468A.700) 		<ul style="list-style-type: none"> Asbestos Abatement (ORS 468A.700-760)
Acid Rain	<ul style="list-style-type: none"> Emission trading (CAA Title IV) 		<ul style="list-style-type: none"> Federal Operating Permit (Title V; ORS 468A.300-330) 	
Stratospheric Ozone Protection	<ul style="list-style-type: none"> Chlorofluorocarbon phase-out (CAA Title VI) 		<ul style="list-style-type: none"> Federal Operating Permit (CAAS Title V; ORS 468A.300-330) 	<ul style="list-style-type: none"> Chlorofluorocarbon, Halon and Aerosol Control (ORS 468A625-645)
Climate Protection	<ul style="list-style-type: none"> Energy Star/voluntary programs 			<ul style="list-style-type: none"> Oregon Office of Energy STAPPA/ALAPCO Harmonizing Air Quality and Climate Protection

Attachment I
DEPARTMENT OF ENVIRONMENTAL QUALITY
STATEMENT OF NEED AND JUSTIFICATION

A Certificate and Order for Filing Temporary Administrative Rules accompanies this form.

Department of Environmental Quality

Agency and Division

OAR Chapter 340

Administrative Rules Chapter Number

In the Matter of: Temporary rules to delay the effective date of the Ozone Precursor Significant Impact Area extension. (OAR 340-225-0020(10) (a) and (b) and 340-225-0090(1)(c)(A) and (B))

Statutory Authority: ORS 468A.25 and 468-020

Other Authority: NA

Statutes Implemented: ORS 468A

Need for the Temporary Rules: The current rules become effective January 1, 2003 which does not allow sufficient time for a standard rulemaking process. The current rules include a delayed effective date to allow the Department time to develop an evaluation process for ozone precursor impacts. The information that the Department needs to develop this process is not available on the timeline originally expected, but is in the works and will be available within the next year. Temporary rules are needed to allow the Department additional time to evaluate areas of the state where emissions will not impact ozone sensitive areas.

Documents Relied Upon: none

Justification of Temporary Rules: The Department intended to have a process in place for making impact determinations before the effective date of these rules. Due to a delay in getting the necessary modeling and weather data, it is not possible to implement the new process by January 1, 2003. The temporary rules will be followed up by permanent rules within 180 days of the effective date. Allowing the existing rules to take effect, and then subsequently finalizing the impact determination process, would significantly increase workload in the interim and create an uneven playing field for major sources. If the Department does not adopt a temporary rule, the current rule will become effective on January 1, 2003. The current rule expands the evaluation zone from 30 km to 100 km around an ozone area effective January 1, 2003. This will create uncertainty for businesses wanting to locate within 100 kilometers of an ozone sensitive area and may be the cause of them locating elsewhere, thus hampering economic development. Also, due to the increased workload associated with doing case-by-case, instead of an area wide, analysis permitting actions will be delayed, and depending on the number of permit applications received some may not get processed in a timely manner. Failure of the Department to process permits in a timely manner will delay businesses from being able to begin capitol projects which in turn may cause a financial loss for them and the businesses they serve.

Housing Cost Impacts:

The Department has determined that this proposed rulemaking will have *no effect* on the cost of development of a 6,000 square foot parcel and the construction of a 1,200 square foot detached single family dwelling on that parcel.

Stephanie Hallock 9-3-02
Signer and Date

STEPHANIE HALLOCK
Printed name

State of Oregon
Department of Environmental Quality

Memorandum

Date: September 10, 2002
To: Environmental Quality Commission
From: Stephanie Hallock, Director *S Hallock*
Subject: Agenda Item Q, Rule Adoption: Rule Revisions Regarding Rulemaking and Contested Case Hearings
October 4, 2002 EQC Meeting

Department Recommendation The Department recommends the Commission adopt the proposed rule revisions as presented in Attachment A.

Need for Rulemaking Updates the reference to the Attorney-General's "Model Rules" or "Uniform Rules" incorporated in the Department's rules governing rulemaking. This also makes permanent a temporary rule allowing certain entities appearing before the Department in a contested case hearing to be represented by an authorized representative. Without this rule, these entities would need to be represented by an attorney.

Effect of Rule Clarifies which version of the Attorney-General's Model Rules apply to the Department's rulemaking procedures. Allows for use of non-attorney, authorized representative by certain entities at contested case hearings.

Commission Authority The Commission has authority to take this action under ORS 183.341; ORS 183.457.

Stakeholder Involvement There was no stakeholder involvement, as the rules merely continue current practices. The Department held a public hearing on the proposed rule revisions on August 15, 2002. No one testified or submitted written comments.

Public Comment A public comment period extended from August 1, 2002 to August 16, 2002 and included a public hearing at DEQ headquarters in Portland. There was no public input, as reflected in Attachments B and C.

Key Issues In order to avoid a lapse in the rule allowing for use of authorized representatives by certain entities at contested case hearings, the Commission must adopt the temporary rule so it is effective no later than October 21, 2002.

Agenda Item Q, Rule Adoption: Rule Revisions Regarding Rulemaking and Contested Case Hearings
October 4, 2002 EQC Meeting
Page 2 of 2

Next Steps No further steps are required. These rules will do not require an implementation plan because they do not change existing practices.

- Attachments**
- A. Proposed Rule Revisions
 - B. Summary of Public Comments and Agency Responses
 - C. Presiding Officer's Report on Public Hearings
 - D. Relationship to Federal Requirements Questions
 - E. Statement of Need and Fiscal and Economic Impact
 - F. Land Use Evaluation Statement

- Available Upon Request**
- 1. Legal Notice of Hearing
 - 2. Cover Memorandum from Public Notice

Approved:

Section:

NONE

Division:

James T. Proci

Report Prepared By: Jane K. Hickman

Phone: (503) 229-5555

Rule Revisions Regarding Rulemaking and Contested Case Hearings
Proposed for Adoption by the EQC on October 3, 2002

340-011-0005

Definitions

The words and phrases used in this Division have the same meaning given them in ORS 183.310, the Hearing Panel Rules or the Model Rules as context requires unless otherwise defined in this division.

- (1) "Commission" means the Environmental Quality Commission.
- (2) "Department" means the Department of Environmental Quality.
- (3) "Director" means the Director of the Department or the Director's authorized delegates.
- (4) "Filing" means receipt in the office of the Director or other office of the Department. Such filing is adequate where filing is required of any document with regard to any matter before the Commission, Department or Director, except a claim of personal liability.
- (5) "Hearing Panel Rules" means the Attorney General's Rules, OAR137-003-0501 through 137-003-0700.
- (6) "Model Rules" or "Uniform Rules" means the Attorney General's Uniform and Model Rules of Procedure, OAR 137-001-0005 through 137-003-0500, excluding OAR 137-001-0008 through 137-001-0009 as amended and in effect on ~~January 1, 2000~~ October 21, 2001.
- (7) "Participant" means the person served with notice under OAR340-011-0097, a person granted either party or limited party status in the contested case under OAR 137-003-0535, an agency participating in the contested case under OAR 137-003-0540, and the Department.
- (8) "Person" means any individual, partnership, corporation, association, governmental subdivision, public or private organization, or agency.

Stat. Auth.: ORS 183.341 & ORS 468.020

Stats. Implemented: ORS 183.341

Hist.: DEQ 69(Temp), f. & ef. 3-22-74; DEQ 72, f. 6-5-74, ef.6-25-74; DEQ 78, f. 9-6-74, ef. 9-25-74; DEQ 122, f. & ef.9-13-76; DEQ 25-1979, f. & ef. 7-5-79; DEQ 7-1988, f. & cert.ef. 5-6-88; DEQ 10-1997, f. & cert. ef. 6-10-97; DEQ 3-1998, f.& cert. ef. 3-9-

98; DEQ 1-2000(Temp), f. 2-15-00, cert. ef.2-15-00 thru 7-31-00; DEQ 9-2000, f. & cert. ef. 7-21-00

340-011-0106

Authorized Representatives of Parties in a Contested Case Hearing

Per ORS 183.457 and OAR 137-003-0555, a corporation, partnership, limited liability company, unincorporated association, trust and government body may be represented by either an attorney or an authorized representative in a contested case hearing before a hearing officer or the Commission.

Stat. Auth.: ORS 183.335& ORS 468.020

Stats. Implemented: ORS 183.457

Hist.: DEQ 6-2002(Temp), f. & cert. ef. 4-24-02, thru 10-21-02

Summary of Public Comment and Agency Response

Rulemaking Proposal for Rule Revisions Regarding Rulemaking and Contested Case Hearings

Prepared by: Jane K. Hickman

Date: September 10, 2002

Comment period

The public comment period opened on August 1, 2002 and closed at 5:00 p.m. on August 16, 2002. DEQ held a public hearing at 9:00 a.m. on August 15, 2002 at the Department of Environmental Quality, 811 S.W. 6th Avenue, 10th floor, Portland, Oregon 97204. No one attended the hearing or testified. No one submitted written comments.

State of Oregon
Department of Environmental Quality

Memorandum

To: Environmental Quality Commission **Date:** September 10, 2002

From: Jane K. Hickman, Environmental Law Specialist
Office of Compliance and Enforcement

Subject: Presiding Officer's Report for Rulemaking Hearing

Title of Proposal: Rulemaking Proposal for Rule Revisions Regarding
Rulemaking and Contested Case Hearings

Hearing Date and Time: August 15, 2002, 9:00 a.m.

Hearing Location: Department of Environmental Quality

811 S.W. 6th Avenue, 10th floor

Portland, Oregon 97204

The Department convened the rulemaking hearing on the proposal referenced above at 9:00 a.m. and closed it at 9:30 a.m.

No one attended the hearing; no one testified. No one submitted written comments.

**Questions to be Answered to Reveal
Potential Justification for Differing from Federal Requirements.**

1. Are there federal requirements that are applicable to this situation? If so, exactly what are they? No.
2. Are the applicable federal requirements performance based, technology based, or both with the most stringent controlling? N/A
3. Do the applicable federal requirements specifically address the issues that are of concern in Oregon? Was data or information that would reasonably reflect Oregon's concern and situation considered in the federal process that established the federal requirements? N/A
4. Will the proposed requirement improve the ability of the regulated community to comply in a more cost effective way by clarifying confusing or potentially conflicting requirements (within or cross-media), increasing certainty, or preventing or reducing the need for costly retrofit to meet more stringent requirements later? N/A
5. Is there a timing issue which might justify changing the time frame for implementation of federal requirements? N/A
6. Will the proposed requirement assist in establishing and maintaining a reasonable margin for accommodation of uncertainty and future growth? N/A
7. Does the proposed requirement establish or maintain reasonable equity in the requirements for various sources? (level the playing field) Yes, because all listed entities, regardless of size, would be able to be represented at a contested case hearing by an authorized representative rather than by an attorney.
8. Would others face increased costs if a more stringent rule is not enacted? N/A
9. Does the proposed requirement include procedural requirements, reporting or monitoring requirements that are different from applicable federal requirements? If so, Why? What is the "compelling reason" for different procedural, reporting or monitoring requirements? N/A
10. Is demonstrated technology available to comply with the proposed requirement? N/A
11. Will the proposed requirement contribute to the prevention of pollution or address a potential problem and represent a more cost effective environmental gain? N/A

DEPARTMENT OF ENVIRONMENTAL QUALITY
Chapter 340
Proposed Rulemaking
STATEMENT OF NEED AND FISCAL IMPACT
This form accompanies a Notice of Proposed Rulemaking

Title of Proposed Rulemaking:	Rulemaking Proposal for Rule Revisions Regarding Rulemaking and Contested Case Hearings
Need for the Rule(s)	Updates the reference to the Attorney-General's "Model Rules" or "Uniform Rules" incorporated in the Department's regulations governing rulemaking. Also makes permanent a temporary rule allowing certain entities appearing before the Department in a contested case hearing to be represented by an authorized representative. Without this rule, these entities would need to be represented by an attorney.
Fiscal and Economic Impact	
Overview	There is no economic impact from the amendment of the Attorney-General's Model Rules governing rulemaking. Making permanent the temporary rule allowing certain entities to be represented at a contested case hearing by an authorized representative benefits these entities, who otherwise would be required to hire an attorney to represent them.
General public	No negative economic impact (see Overview).
Small Business	No negative economic impact (see Overview).
Large Business	No negative economic impact (see Overview).
Local Government	No negative economic impact (see Overview).
State Agencies	No negative economic impact (see Overview).
DEQ	None.
Other agencies	None.
Assumptions	The Department assumes it is more cost-effective to have a layperson rather than an attorney represent a party at a contested case hearing.
Housing Costs	The Department has determined that this proposed rulemaking will have no effect on the cost of development of a 6,000 square foot parcel and the construction of a 1,200 square foot detached single family dwelling on that parcel.

Barrett MacDougall 7.15.02

Signer and Date

Barrett MacDougall
Printed name

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Rulemaking Proposal
for
Rule Revisions Regarding Rulemaking and Contested Case Hearings

Land Use Evaluation Statement

1. Explain the purpose of the proposed rules.

Updates the reference to the Attorney-General's "Model Rules" or "Uniform Rules" incorporated in the Department's rules governing rulemaking. Also makes permanent a temporary rule allowing certain entities appearing before the Department in a contested case hearing to be represented by an authorized representative. Without this rule, these entities would need to be represented by an attorney.

2. Do the proposed rules affect existing rules, programs or activities that are considered land use programs in the DEQ State Agency Coordination (SAC) Program?

Yes ___ No X The Department has earlier determined that rulemaking and enforcement programs are not agency programs that significantly affect land use.

a. If yes, identify existing program/rule/activity:

b. If yes, do the existing statewide goal compliance and local plan compatibility procedures adequately cover the proposed rules?

Yes ___ No ___ (if no, explain):

c. If no, apply the following criteria to the proposed rules.

Staff should refer to Section III, subsection 2 of the SAC document in completing the evaluation form. Statewide Goal 6 - Air, Water and Land Resources is the primary goal that relates to DEQ authorities. However, other goals may apply such as Goal 5 - Open Spaces, Scenic and Historic Areas, and Natural Resources; Goal 11 - Public Facilities and Services; Goal 16 - Estuarine Resources; and Goal 19 - Ocean Resources. DEQ programs and rules that relate to statewide land use goals are considered land use programs if they are:

1. Specifically referenced in the statewide planning goals; or
2. Reasonably expected to have significant effects on
 - a. resources, objectives or areas identified in the statewide planning goals, or
 - b. present or future land uses identified in acknowledged comprehensive plans.

In applying criterion 2 above, two guidelines should be applied to assess land use significance:

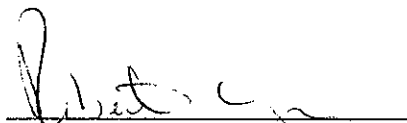
- The land use responsibilities of a program/rule/action that involved more than one agency, are considered the responsibilities of the agency with primary authority.
- A determination of land use significance must consider the Department's mandate to protect public health and safety and the environment.

In the space below, state if the proposed rules are considered programs affecting land use. State the criteria and reasons for the determination.

The proposed rules are not considered programs affecting land use. The proposed rules govern the Department's rulemaking and contested case hearing procedures and have no impact on land use, resources or the environment.

3. **If the proposed rules have been determined a land use program under 2. above, but are not subject to existing land use compliance and compatibility procedures, explain the new procedures the Department will use to ensure compliance and compatibility.**

Division



Intergovernmental Coord.

7/12/02

Date

State of Oregon
Department of Environmental Quality

Memorandum

Date: September 11, 2002

To: Environmental Quality Commission

From: Stephanie Hallock, Director *S. Hallock*

Subject: Agenda Item R, Action Item: Request for Variance to the Water Quality Total Dissolved Gas Standard for Spill at The Dalles Dam
October 3-4, 2002 EQC Meeting

Proposed Action The U.S. Army Corps of Engineers (Corps) has petitioned the Commission for a variance to the State's total dissolved gas water quality standard to enable water to be spilled at The Dalles dam. The petition requests a variance from the standard of 110 percent of saturation relative to atmospheric pressure for a twelve day period commencing in October 2002. For this period, the Corps is seeking a total dissolved gas standard of 125 percent saturation as measured in the tailrace of the dam, and 115 percent saturation as measured in the forebay of Bonneville dam.

Key Issues **Need for Test**

The 2002 National Marine Fisheries Service's biological opinion for the Columbia River Power System calls for a survival-based performance standard for juvenile fish passage. In particular, Reasonable and Prudent Action (RPA) 68 requires the Corps and Bonneville Power Administration to conduct spill and survival studies at The Dalles dam.

Objectives of the Test

A key element in understanding the relationship between spill and survival is an evaluation of gate opening (spill per spill bay), tailwater elevation and juvenile fish survival. This test is planned for October 2002 so that a dataset may be collected for low tailwater elevation conditions. A delay in the study will result in the deferral of any subsequent survival improvement measures for another year. Low tailwater conditions will not be able to be replicated until August 2003 at the earliest. Further, the study has been timed to coincide with what are expected to be few fish migrating in the river.

Study Design

Four test discharges at different flow rates and tailwater elevations will be conducted. Each test will last for ten hours per day for three days (for a total of 12 days). Approximately 400 fish per gate opening will be released through spill bays two and four. These fish will be equipped with balloon tags and sensors. They will be subsequently collected and examined. In addition, 400 reference fish will be used (for a total of 2,000 fish). Metrics to be collected include direct injury and mortality rates, hydraulic condition exposure index and stilling basin retention time (based on fish sensors).

Outcomes from the Test

One of the key hypotheses to be tested in this study is that there is a difference in survival between spill bays two and four. It is surmised that this is the result of a training wall at spill bay two that is not present at spill bay four. If, as a result of this study it is found that the training wall is beneficial for survival, training walls between the spill bays could be implemented as early as 2004. Delaying the test will delay construction of training walls if these are found to be beneficial.

Public Input

The Department issued a notice to the public of receipt of this application on August 29, 2002. Public comment will be solicited until September 27, 2002, and a public hearing is scheduled for September 27, 2002. The Department will summarize the public input and present this to the Commission prior to its October 4, 2002 meeting.

EQC Action Alternatives

The EQC has two alternatives for action:

1. Approve the requests with or without conditions. In order to take this action, the Commission must make the four affirmative findings detailed in Attachment C;
2. Decline to approve the petitions. In this case, the Commission would decide that the addition of total dissolved gas to the Columbia is not warranted for the benefits that are expected to derive from the study. See Attachment A for a copy of the Corps' application and study design.

Department Recommendation The Department recommends that the Commission grant this petition by adopting the findings, and imposing the conditions contained in the Draft Order (Attachment C).

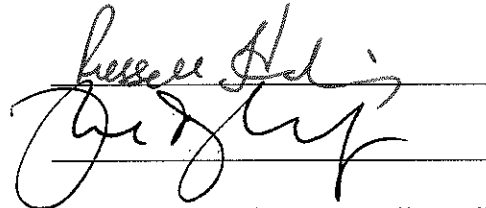
Attachments

- A. Application and Study Design
- B. Oregon Administrative Rule Relating to the Total Dissolved Gas Water Quality Standard
- C. Draft Order and Findings Approving the Corps of Engineers' Request for a Variance

Approved:

Section:

Division:



The image shows a handwritten signature in cursive, which appears to be "Russell Harding". The signature is written over two horizontal lines, one for the section and one for the division.

Report Prepared By: Russell Harding

Phone: (503) 229-5284



REPLY TO -
ATTENTION OF:

Planning, Programs and Project
Management Division

DEPARTMENT OF THE ARMY
PORTLAND DISTRICT, CORPS OF ENGINEERS
P.O. BOX 2946
PORTLAND, OREGON 97208-2946

AUG 23 2002

ATTACHMENT A

RECEIVED

AUG 27 2002

Water Quality Division
Dept. of Environmental Quality

Mr. Russell Harding
Oregon Dept of Environmental Quality
811 SW. Sixth Avenue
Portland, Oregon 97204-1390

Mr. Chris Maynard
Washington Dept of Ecology
PO Box 47600
Olympia, Washington 98504-7600

Mr. Gary Fredericks
National Marine Fisheries Service
525 NE. Oregon St., Suite 500
Portland, Oregon 97232

Gentlemen:

The Portland District Corps of Engineers is requesting approval for a Spill Survival Test at The Dalles Lock and Dam in October of 2002. In particular, we are seeking:

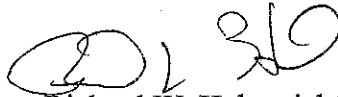
- A modification from the Total Dissolved Gas (TDG) Water Quality Standard from the State of Oregon at The Dalles Lock and Dam for a Spill Survival Test to be conducted in October 2002.
- Approval from the State of Washington to conduct the Spill Survival Test at The Dalles in October when the TDG levels will exceed 110% saturation for part of the test period. The enclosed letter from the State of Washington Department of Ecology identifies the procedures for increasing gas levels from April 1st to August 31st. The same procedures will be followed except this test will be conducted in October.

The 2000 Biological Opinion for the Federal Columbia River Power System (FCRPS) calls for a survival based performance standard for juvenile fish passage. In particular Action 68 requires the Corps and BPA to continue spill and passage survival studies at The Dalles Dam. A key piece to understanding spill survival at The Dalles is developing the relationship between gate opening (spill per bay), tailwater elevation and juvenile fish survival. To acquire a low tailwater data set a spill survival test is planned for The Dalles in October of 2002. Changes in this schedule may occur due to inclement weather or other major difficulties.

The Study Plan, the Test Blocks and an estimate of TDG for each test block are enclosed. To conduct the test, 12 days (10 hours each day) of spill will be required with the spill volumes ranging from 4 Kcfs to 64 Kcfs. Three of the four test blocks should have minimal impact on Total Dissolved Gas (TDG) levels (4 Kcfs, 12 Kcfs and 26 Kcfs spill) as measured at the Fixed Monitoring Stations (FMS) in The Dalles tailwater and the Bonneville Forebay. For the fourth test block, the 64 Kcfs spill test block, TDG estimate at The Dalles tailwater FMS is 110% saturation. TDG levels on the spillway shelf at The Dalles will be in the low 120% saturation. The Dalles tailwater and the Bonneville forebay FMS will be operating during the testing to document resulting TDG at these locations.

Please contact Mr. Rock Peters at (503) 808-4777 or Mr. Mike Langeslay at (503) 808-4774 with any questions regarding these tests.

Sincerely,

A handwritten signature in black ink, appearing to read 'R. W. Hobernicht', is written over a circular stamp or mark.

Richard W. Hobernicht
Colonel, Corps of Engineers
District Engineer

Enclosure

CENWP

August 21, 2002

MEMORANDUM FOR THE RECORD

SUBJECT: Study Plan for Spill Survival Test October 2002 – Low Tailwater

1. An ad hoc SRWG meeting was called August 7, 2002 to develop a study design for The Dalles Survival, SPE-P-00-8, objective 4b. The objective in the research summary reads "Evaluate the effects of spill gate opening and tailwater elevation on juvenile salmon direct injury and survival rates".

2. The **purpose of this study** is to determine if there is a relationship between per bay discharge (for a low and high tailwater) and direct injury and mortality. This information is needed to move forward with training walls and other alternatives that are being investigated by the spillway improvement team. If this study is initiated in the fall of 2002, training walls could be implemented as soon as 2004. If the low tailwater component of this test is done next August, the earliest we could implement training walls is 2005.

3. Study design:

- Balloon-tag mark recapture techniques and sensor fish measurements
- Metrics are direct injury and mortality rates, hydraulic condition exposure index, stilling basin retention time (based on sensor fish)
- Test discharges are identified in the attached test block matrix,
- Fish releases will be through two bays (4 and 2)
- Two hypotheses are being tested;
 1. Ho: injury and mortality rates can be related to gate opening or discharge per bay
 2. Ho: injury and mortality rates for Bay 2 and Bay 4 are different because of the wall effects in bay 2 which are not existent in bay 4
- Approximately 400 fish per treatment and 400 reference fish are required = 2000 fish for each tailwater.
- Estimated 3 days of testing per treatment x 4 treatments = 12 days of spill for ~10hrs/day

Spillway Test for Spill Volume Survival Test											Laurie Ebner	
Tailwater 77 ft											21-Aug-02	
Total River at 125 Kcfs												
Test No.	Spillway bays							Total Spill	FMS* TDA tailrace	FMS+ Bonn Forebay	Bay	Days
	1	2	3	4	5	6	7					
1	0	4	0	0	0	0	0	4	98.7	98.7	2	3
2	0	12	0	0	0	0	0	12	100.2	100.2	2	3
3	0	4	4	4	4	10	0	26	102.8	102.8	4	3
4	0	10	12	12	12	18	0	64	109.9	109.9	4	3
TDG estimated provided by Mike Schneider												
* Assumes TDG background saturation of 98%, spill water TDG saturation in the low 120's, and well mixed conditions at the tailwater FMS.												
"+ Worst Case condition of no loss of TDG saturation in route to Bonneville Dam."												

Oregon Administrative Rule, OAR 340-41- 525 (2)(n)

- (A) The concentration of total dissolved gas relative to atmospheric pressure at the point of sample collection shall not exceed 110 percent of saturation, except when stream flow exceeds the ten-year, seven-day average flood. However, for hatchery receiving waters and waters of less than two feet in depth, the concentration of total dissolved gas relative to atmospheric pressure at the point of sample collection shall not exceed 105 percent of saturation;

- (B) The Commission may modify the total dissolved gas criteria in the Columbia River for the purpose of allowing increased spill for salmonid migration. The Commission must find that:
 - (i) Failure to act would result in greater harm to salmonid stock survival through in-river migration than would occur by increased spill;
 - (ii) The modified total dissolved gas criteria associated with the increased spill provides a reasonable balance of the risk of impairment due to elevated total dissolved gas to both resident biological communities and other migrating fish and to migrating adult and juvenile salmonids when compared to other options for in-river migration of salmon;
 - (iii) Adequate data will exist to determine compliance with the standards; and
 - (iv) Biological monitoring is occurring to document that the migratory salmonid and resident biological communities are being protected.

- (C) The Commission will give public notice and notify all known interested parties and will make provision for opportunity to be heard and comment on the evidence presented by others, except that the Director may modify the total dissolved gas criteria for emergencies for a period not exceeding 48 hours;

- (D) The Commission may, at its discretion, consider alternative modes of migration.

Draft Order Approving U.S. Army Corps of Engineers' Request

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION

In the matter of the U.S. Army Corps)
Of Engineers' request to spill water) ORDER
to test juvenile spill survival)
at The Dalles Dam)

WHEREAS the Department of Environmental Quality received a request from the U.S. Army Corps of Engineers dated August 23, 2002, to adjust the Total Dissolved Gas Standard as necessary to spill water at The Dalles dam on the Columbia River to test juvenile salmonid spill survival, for a 12-day period commencing in October 2002; and

WHEREAS the public was notified of the request on August 29, 2002, and given the opportunity to provide testimony at 10:00 a.m. on September 27, 2002, and the opportunity to provide written comments until 5:00 p.m. on September 27, 2002; and

WHEREAS the Environmental Quality Commission met on October 4, 2002, and considered the request, justification and public comment.

THEREFORE the Environmental Quality Commission orders as follows:

1. Acting under OAR 340-41-525 (2)(n), the Commission finds that:
 - (i) failure to act will result potentially in greater injury and mortality to migrating salmonid smolts. The results of this test will enable evaluation of measures designed to improve survival of migrating smolts;
 - (ii) the balance of risk of impairment to migrating salmonids, resident fish, and other aquatic life due to elevated dissolved gas levels needs to be balanced against migrating juvenile salmonid mortality from turbine passage. The tests proposed here are designed to determine the quantity of water that can safely be spilled at

The Dalles dam to keep total dissolved gas at levels that are protective of fish. The test is designed to optimize fish passage while keeping total dissolved gas at levels that will protect resident populations;

- (iii) the total dissolved gas fixed monitors in The Dalles tailrace and Bonneville forebay will be operational during this test. This physical monitoring will be sufficient to ensure compliance with this Order;
- (iv) biological monitoring is an integral part of this study. The study has been timed to avoid migrations of wild fish in the river. Full biological assessments will be conducted on all fish subject to the study.

2. The Environmental Quality Commission approves a modification to the Total Dissolved Gas standard for spill over The Dalles dam subject to the following conditions:

- (i) a revised total dissolved gas standard for The Dalles dam and Bonneville dam on the Columbia River for not more than a 12-day period commencing in October 2002;
- (ii) a total dissolved gas standard for Bonneville dam of a daily (12 highest hours) average of 115 percent as measured at the Bonneville dam forebay monitoring station;
- (iii) a further modification of the total dissolved gas standard at The Dalles dam to allow for a daily (12 highest hours) average of 120 percent as measured at tailrace monitors below the dam;
- (iv) a cap on total dissolved gas for The Dalles dam during the spill program of 125 percent, based on the highest six hours during the 12 highest hourly measurements per calendar day; and
- (v) the U.S. Army Corps of Engineers to furnish the Department with a written report of the test within 90 days after field sampling is completed.

Dated: _____

ON BEHALF OF THE COMMISSION

Director

State of Oregon
Department of Environmental Quality

Memorandum

Date: October 2, 2002
To: Environmental Quality Commission
From: Stephanie Hallock, Director *S. Hallock*
Subject: Agenda Item R, Action Item: Request for Variance to the Water Quality Total Dissolved Gas Standard for Spill at The Dalles Dam, October 3-4, 2002 EQC Meeting

Public Input In its report of September 10, 2002, the Department committed to summarize the public input received in relation to the above petition.

On August 29, 2002, the Department released a public notice advising the public of the receipt of the petition. A public hearing was scheduled for September 27, 2002 at 10:00 a.m. in Portland. The deadline for receiving written comments was 5:00 p.m. on September 27, 2002.

No testimony was offered at the public hearing. Two written comments were received. The following summarizes the written comments:

Fara Ann Currim, The Confederated Tribes of the Warm Springs (CTWS)

The Dalles dam is within the ceded lands of the CTWS. The Tribes have co-management responsibility for fish and wildlife. CTWS supports the variance and is interested in receiving results of the collected data so that fish passage survival measures can be monitored for effectiveness.

Mike Matylewich, Columbia River InterTribal Fish Commission (CRITFC)

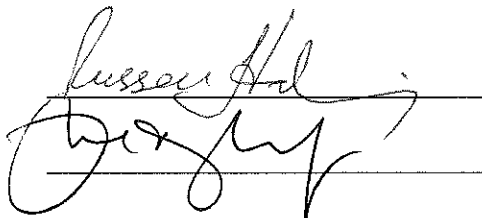
CR ITFC supports granting this variance. The 2000 National Marine Fisheries Service's biological opinion identifies The Dalles dam as having the lowest survival of juvenile migrating salmonids among any of the mainstem projects. There are three routes of passage for juvenile salmonids – the spillway, turbines and sluiceway. While the spillway provides the best passage route, it is not meeting survival targets. The spillway passes between 70 and 80 percent of spring migrants and 70 percent of summer migrants. The reasons for the low survival rates are unknown – making this research very important.

CRITFC strongly supports the research and believes it will yield data that can be used to improve passage at the dam and meet the survival standards outlined in the biological opinion.

Approved:

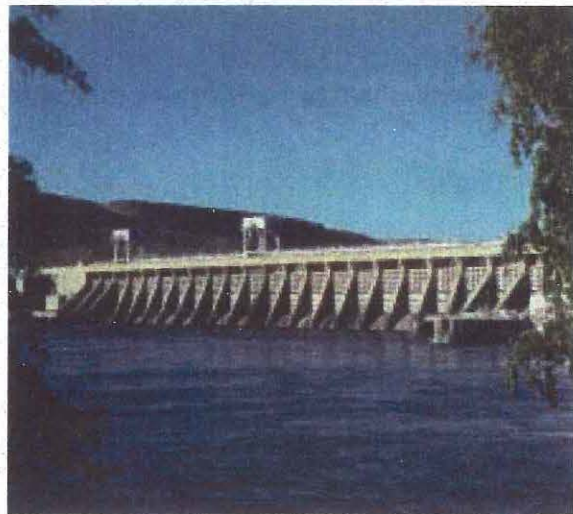
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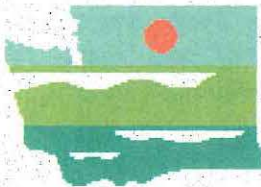
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Report Prepared By: Russell Harding
Phone: (503) 229-5284

Total Maximum Daily Load (TMDL) for Lower Columbia River Total Dissolved Gas



September 2002



Washington State
Department of Ecology

Prepared jointly by the
Oregon Department of Environmental Quality
and the
Washington State Department of Ecology



State of Oregon
Department of
Environmental
Quality

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Washington

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If you have special accommodation needs or require this document in alternative format, please contact Joan LeTourneau, Environmental Assessment Program, at (360)-407-6764 (voice), or Russell Harding, Columbia River Coordinator, at (503) 229-5284 (voice). Ecology's telecommunications device for the deaf (TTY) number is (360) 407-6006. DEQ's telecommunications device for the deaf (TTY) number is (503) 229-6993.

Total Maximum Daily Load for Lower Columbia River Total Dissolved Gas

by
Paul J. Pickett¹
and
Russell Harding²

¹Washington State Department of Ecology
Environmental Assessment Program
Olympia, WA 98504-7710

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Water Quality Division
Portland, OR 97204

September 2002

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Acronyms and Abbreviations

Corps	U.S. Army Corps of Engineers
CRITFC	Columbia River Inter-Tribal Fish Commission
DGAS	Dissolved Gas Abatement Study
EPA	U.S. Environmental Protection Agency
FMS	Fixed Monitoring Station
fmsl	feet above mean sea level
kcf/s	thousand cubic feet per second
mm Hg	Millimeters of Mercury
NMFS	National Marine Fisheries Service
NPDES	National Pollutant Discharge Elimination System
OAR	Oregon Administrative Rules
TDG	Total Dissolved Gas
TMDL	Total Maximum Daily Load
WAC	Washington Administrative Code
WBID	Waterbody Identification
WRIA	Water Resource Inventory Area
303(d)	Section 303(d) of the federal Clean Water Act
7Q10	Seven-day, ten-year frequency flow
ΔP	Excess gas pressure over barometric pressure

Abstract

This Total Maximum Daily Load (TMDL) addresses total dissolved gas (TDG) in the mainstem Columbia River from its confluence with the Snake River to its mouth at the Pacific Ocean. The states of Oregon and Washington have both listed multiple reaches of the Lower Columbia River on their federal Clean Water Act 303(d) lists, due to TDG levels exceeding state water quality standards. The entire reach is considered impaired for TDG. Oregon and Washington are jointly issuing this TMDL and submitting it to the U.S. Environmental Protection Agency for its approval.

Elevated TDG levels are caused by spill events at four hydroelectric projects on the Lower Columbia River. Water plunging from a spill entrains TDG at high levels. High TDG can cause “gas bubble trauma” in fish, which can cause chronic or acute effects, depending on TDG levels. Spills can be caused by several conditions. “Voluntary” spills are provided to meet juvenile fish passage goals. “Involuntary” spills are caused by lack of powerhouse capacity for river flows. Involuntary spills can result from turbine maintenance or break-down, lack of power load demand, or high river flows. Elevated TDG levels also enter the TMDL area at the upstream boundary from sources outside the TMDL area.

This TMDL sets a TDG loading capacity for the Lower Columbia River in terms of excess pressure above ambient. Allocations are specified for each dam and for the upstream boundary, also expressed in terms of excess pressure. Allocations for the dams must be met at points of compliance within each dam’s tailrace at a specified distance below the spillway, corresponding to the end of the aerated zone. The upstream allocation must be met in the pool above McNary dam.

An implementation plan is provided that describes short-term compliance with Endangered Species Act requirements. Long-term compliance is described for both Endangered Species Act and TMDL requirements.

Acknowledgements

The Oregon Department of Environmental Quality and the Washington State Department of Ecology wishes to acknowledge the cooperation of the following agencies in the production of this TMDL.

- The U.S. Army Corps of Engineers (Portland District, Walla Walla District, and Northwest Division) provided extensive technical information for this TMDL. Large tracts of the technical analysis have been quoted or paraphrased from the Corps' Dissolved Gas Abatement Study (DGAS). This TMDL would have been much more difficult without the understanding of total dissolved gas production resulting from the DGAS study.
- The National Marine Fisheries Service provided valuable advice and review. The Biological Opinion issued in December 2000 pursuant to the Endangered Species Act was invaluable in describing the studies that have been conducted to date, and in specifying the effects of total dissolved gas on fish.
- The U.S. Environmental Protection Agency provided financial and technical assistance.
- Tetra Tech and Battelle Northwest Laboratories provided review and technical input.
- The Western Governor's Association played a major role in outreach.
- The Columbia River Inter-Tribal Fish Commission provided invaluable review and coordination. Staff from the Yakama, Nez Perce, Colville, Spokane, and Kalispel Tribes also contributed to the process.
- The Bonneville Power Administration, U.S. Bureau of Reclamation, and Grant County Public Utilities District provided review and input.

Nothing in this TMDL purports to represent the technical or policy positions of any of the above agencies or organizations. Any flaws in this TMDL are entirely the responsibility of the Oregon Department of Environmental Quality and the Washington State Department of Ecology.

Executive Summary

Description of Waterbody, Pollutant of Concern, and Pollutant Sources

This Total Maximum Daily Load (TMDL) addresses total dissolved gas (TDG) in the mainstem Columbia River from its confluence with the Snake River to its mouth at the Pacific Ocean. The states of Oregon and Washington have both listed multiple reaches of the Lower Columbia River on their federal Clean Water Act 303(d) lists due to TDG levels exceeding state water quality standards. The entire reach is considered impaired for TDG. Oregon and Washington are jointly issuing this TMDL and submitting it to the U.S. Environmental Protection Agency for its approval.

Elevated TDG levels are caused by spill events at four hydroelectric projects on the Lower Columbia River. Water spilled over the spillway of a dam entrains air bubbles. When these are carried to depth in the dam's stilling basin, the higher hydrostatic pressure forces air from the bubbles into solution. The result is water supersaturated with dissolved nitrogen, oxygen, and the other constituents of air. Fish in this water may not display signs of difficulty if the higher water pressures at depth offset high TDG pressure passing through the gills into the blood stream. However, if the fish inhabit supersaturated water for extended periods, or rise in the water column to a lower water pressure at shallower depths, TDG may come out of solution within the fish, forming bubbles in their body tissues. This gives rise to gas bubble trauma, which can be lethal at high levels, or give rise to chronic impairment at lower levels. There is extensive research reported in the literature on the forms of physical damage to fish that represent the symptoms of gas bubble trauma.

Spills can occur at any time for several reasons:

- Fish passage spills (voluntary spills), conducted under the Biological Opinion in compliance with the federal Endangered Species Act.
- Spills required when flow exceeds powerhouse capacity (involuntary spills).

There are three main reasons for involuntary spills:

- The powerhouse cannot pass flood flows.
- The powerhouse is off-line due to lack of power demand.
- The powerhouse is off-line for maintenance or repair.

Dams on the Lower Columbia are run-of-the-river dams with very little storage capacity. Therefore, spills are often forced due to operational decisions at upstream storage reservoirs, such as Washington's Grand Coulee Dam or Dworshak Dam.

This document describes the production of TDG at the four projects in the Lower Columbia River. It presents general production equations representing the production of TDG, and specific equations taking into account each project's particular physical characteristics. Any other

sources of TDG in the TMDL area, such as tributaries, are considered negligible compared to the four dams. TDG is also affected by barometric pressure and water temperature, and these influences are addressed in the TMDL.

Description of the Applicable Water Quality Standards and Numeric Target

The water quality standards for both Oregon and Washington have an identical TDG criterion: *110 percent of saturation not to be exceeded at any point of measurement*. This criterion does not apply to flows above the seven-day, ten-year frequency flow (7Q10) flood flow. In addition, special “waiver” limits for TDG have been established as a temporary special condition in Washington rules, to allow higher criteria with specific averaging periods during periods of spill for fish passage. Oregon rules specify a process for establishing waiver limits as variance on an annual basis. Because the waiver limits are either temporary or annually renewed, this TMDL addresses only the 110 percent criterion. However, the implementation plan allows compliance with waiver limits through 2010 as an interim allowance for compliance with the TMDL in the short-term.

Loading Capacity

Loading capacity for TDG has been defined in terms of excess pressure over barometric pressure (ΔP). This parameter was chosen because it can be directly linked to the physical processes by which spills generate high TDG, and it has a simple mathematical relationship to TDG percent saturation. A loading capacity of 75 mm Hg has been assigned to the Columbia River in this TMDL area, based on meeting 110% saturation during critically low barometric pressure conditions.

Pollutant Allocations

Because of the unique nature of TDG, load allocations for dam spills are not directly expressed in terms of mass loading. Like loading capacity, load allocations for each dam will be made in terms of ΔP defined site-specifically for each dam. A load allocation is also specified for the upstream boundary of the TMDL area. The wasteload allocation under this TMDL is zero, because no NPDES-permitted sources produce TDG.

Long-term compliance with load allocations for dam spills will be at the downstream end of the aerated zone below each spillway. Distances are specified for the compliance location at each dam. As a result, the load allocation must be met in the spill from each dam individually at a specified compliance location, with allowance made for degassing in the tailrace below the spillway and above the compliance location.

Compliance with load allocations are tied to structural changes at each dam, and are intended as long-term targets. Short-term compliance will be established under the implementation plan, and will be based on operational management of spills, implementation of the “fast-track” DGAS

structural modifications, and compliance with Endangered Species Act requirements and TDG waiver criteria.

Margin of Safety

A margin of safety is supplied implicitly by use of conservative critical conditions for ambient barometric pressure. The common occurrence of wind-induced degassing in the TMDL area also provides a margin of safety. The TDG criterion itself provides a margin of safety due to its stringency as compared to site-specific effects documented by extensive site-specific research on TDG and aquatic life in the Columbia River. Due to extensive data collection in the TMDL area, the margin of safety for data uncertainty is small.

Seasonal Variation

Spills and associated high TDG levels, although most likely to occur in the spring and early summer, can potentially occur at any time. Therefore, TMDL load allocations apply year-round. Seasonal effects have been evaluated in the development of critical conditions, but seasonal variations appear to be small. The TMDL only applies for flows below the 7Q10 flood flows, which have been calculated for each dam.

Monitoring Plan

Long-term compliance with load allocation will be monitored at the compliance location below the aerated zone with special studies in the tailrace of the dam, following structural modifications. Also, continuous monitoring will be used for long-term compliance by determining the statistical relationship between continuous monitors and conditions at the compliance location. Monitoring of implementation and operational controls in the short term will use continuous monitoring at fixed monitoring station sites.

Implementation Plan

The Implementation Plan incorporates actions described and analyzed by the National Marine Fisheries Service in the Biological Opinion and by the U.S. Army Corps of Engineers in its Dissolved Gas Abatement Study. Both short-term (Phase I) and long-term (Phase II) measures are described with specific TDG and spill reduction measures. Phase I is in effect through 2010. Phase II begins in 2011 and continues until 2020. The Implementation Plan has been developed in consultation with the National Marine Fisheries Service, so that TMDL implementation will be coordinated with requirements of the Endangered Species Act.

Reasonable Assurance

Structural work has already been carried out to reduce TDG at the four Lower Columbia River dams. Both the Oregon Department of Environmental Quality and the Washington State

Department of Ecology have regulatory authority over the four federal dam projects. However, both are confident that the collaborative effort with the dam operators toward reducing gas will continue and be enhanced through this TMDL. The track record for Congressional funding for these projects is good, and there is reason to believe that further funding of projects will continue.

Public Participation

Extensive public involvement activities, organized by the inter-agency TMDL Coordination Team, have occurred under this TMDL for over a year. Activities have included websites, focus sheets, coordination meetings, stakeholder meetings, conference presentations, and public workshops. Public hearings were held in March 2002 (see *Summary of Public Involvement* section of this report).

Introduction

State water quality standards establish criteria at levels that ensure the protection of the water's beneficial uses. Water that fails to meet water quality standards triggers a state action in Oregon and Washington. The Oregon Department of Environmental Quality and Washington State Department of Ecology are charged to assess, manage, and protect the beneficial uses of the waters of their respective states.

A number of waterbodies fail to meet water quality standards. Oregon and Washington are charged with returning waterbodies to standards. The requirement under the federal Clean Water Act for achieving this is known as a Total Maximum Daily Load (TMDL).

Oregon and Washington have established criteria for total dissolved gas (TDG), which at high levels has deleterious effects on fish and other aquatic life. This document details a TMDL approach for TDG in the mainstem Columbia River from the mouth of the Snake River to its mouth at the Pacific Ocean (Figure 1). This report will explain what TDG is, why high TDG is a problem, and a strategy for managing it so water quality standards will be met.

Collection

Item	Description	Quantity	Value
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Purpose of, and Authority for, TMDL

Compliance with Clean Water Act

The border between the states of Washington and Oregon follows the geographic center of the Columbia River mainstem for most of the river from the Wallula Gap (a few miles below the confluence of the Snake and Columbia rivers) to its mouth. Both states have adopted water quality standards for TDG to protect aquatic life. This entire reach of the river is out of compliance with the TDG water quality standard both for the state of Oregon and the state of Washington. In both states the river is listed on their 1998 lists of waterbodies failing to meet standards pursuant to Section 303(d) of the federal Clean Water Act. As a result of the standards exceedances and subsequent listings, this TMDL is being prepared jointly by Oregon and Washington.

Although Oregon and Washington only have authority over the waters within their boundaries, under federal law each state must meet the standards of the other where the waters are shared, such as in the Lower Columbia River. Therefore, the goal of this TMDL is to provide a single TMDL analysis and implementation plan that both states agree to, which will then be implemented by each state with their unique authorities.

A TMDL determines the quantity (load) of a pollutant that can enter a waterbody and still meet water quality standards. This load is then allocated among the various sources. An implementation component (in Washington, Summary Implementation Strategy or SIS) is included to identify actions that appropriate agencies and stakeholders (in Oregon, Designated Management Agencies or DMAs) will undertake to achieve the allocated loads.

The TMDL, as described in this document, must be submitted to the U.S. Environmental Protection Agency (EPA) for their approval. Oregon and Washington each operate under a Memorandum of Agreement with EPA, which guides the TMDL submittal. This document has been organized by Oregon's guidelines, but Table 1 outlines the components of Washington's TMDL submittal and how they match up.

Table 1: Comparison of Oregon's and Washington's TMDL Submittal Format

State of Oregon	State of Washington
Table of Contents	(Optional)
List of Tables	(Optional)
List of Illustrations	(Optional)
Acknowledgement	(Optional)
Executive Summary	(Optional)
Introduction	Introduction
Purpose of, and Authority for, TMDL	Introduction
Geographic Extent	Background
TDG Water Quality Standards	Applicable Criteria
Basin Assessment	Background
Deviation of Ambient Conditions from Water Quality Standards	Water Quality and Resource Impairments
Loading Capacity	Technical Analysis; Loading Capacity
Identification of Sources	Technical Analysis
Load Allocations	Load and Wasteload Allocations
Margin of Safety	Margin of Safety
Seasonal Variations	Seasonal Variation
Implementation Plan	Summary Implementation Strategy
References and Bibliography	References Cited

Coordination with Endangered Species Act

In Oregon and Washington, a TMDL is a planning tool, not a rule of law or other stand-alone enforceable document. It does not take precedence over the federal Endangered Species Act, Indian Treaties, or federal hydropower system enabling legislation. It takes no action that would trigger a review under the National Environmental Policy Act or Washington State Environmental Policy Act. TMDLs may be used to condition exemptions, modifications, variances, permits, licenses, and certifications.

There is much overlap between this TMDL established pursuant to the federal Clean Water Act and anadromous fish passage for salmonids listed as threatened or endangered under the Endangered Species Act, administered by the National Marine Fisheries Service (NMFS). It is therefore important that there is a clear understanding of the requirements of this TMDL relative

to measures required by Biological Opinions issued in relation to the threatened and endangered species of the Snake and Columbia rivers.

The 2000 Federal Columbia River Power System (hydrosystem) Biological Opinion requires that the action agencies (U.S. Army Corps of Engineers, Bonneville Power Administration, and the U.S. Bureau of Reclamation) meet specific hydrosystem biological performance standards for both adult and juvenile salmon. The purpose of these standards is to help reverse the downward trend in listed salmon populations and therefore ensure viable salmon resources in the Columbia River Basin. The juvenile hydrosystem goals are one part of a three-tiered approach to assessing performance of implementation of the Reasonable and Prudent Alternative Section items presented in the Biological Opinion. These hydrosystem standards are combined with standards for harvest, habitat, and hatcheries and other life stage indicators to arrive at a population level standard.

The hydrosystem survival performance standards can be met by a combination of controlled spills, fish passage facilities to divert juvenile salmon from passing through the turbines, or juvenile transportation by truck or barge. Due to the current configuration of the hydroelectric projects along the Columbia and Snake rivers, NMFS sees spill as the safest, most effective tool available. However, these performance standards are not being met at the current implementation level of the spill program. Therefore, in the short-term, structural gas abatement solutions may result in higher spills rather than lower TDG levels. But as new, more effective fish passage facilities are completed and evaluated, their contribution to the attainment of hydrosystem performance standards will hopefully allow spill levels for fish passage and associated TDG levels to be reduced, but only as long as the performance standards are met.

Spills for fish passage under the Biological Opinion cause TDG supersaturation above the 110 percent criterion. The state water quality standards are meant to be sufficiently protective so as to prevent damage to beneficial use of the state waters. The effects of elevated dissolved gas on migrating juvenile and adult salmon due to voluntary spill have been monitored each year of spill program implementation. Based on five years of data from the biological monitoring program, the average incidence of gas bubble disease signs has been low, although the state-allowed maximum TDG due to spill was 120 percent in the tailrace and 115 percent in forebays. From 1995 to 1996, only 1.6 percent of all the juveniles sampled, nearly 200,000 fish, showed signs of disease (Schneider, 2001). These results suggest that, in weighing the benefit gained in increased salmon survival by spills for fish passage against the benefit to the beneficial use from strict adherence to the standard, it would be reasonable to find flexibility in application of the standards.

In summary, the provisions of both Acts must be met. Notwithstanding that, it is not the purpose of the Clean Water Act to usurp functions properly undertaken pursuant to the Endangered Species Act. On the contrary, the Endangered Species Act contains provisions that encourage EPA to consult with NMFS prior to approval of a TMDL that affects ESA-listed species to ensure the TMDL is consistent with species recovery goals. The 2000 Biological Opinion issued pursuant to the Endangered Species Act requires attainment of certain fish passage performance standards. One of the means of attaining these is through spilling water over hydroelectric dam spillways. This action, though, results in elevated TDG. Control of TDG is the purpose of this

TMDL. The Clean Water Act does not envisage trade-offs of fish passage for TDG; it requires, rather, attainment of water quality standards. This is one of the significant challenges posed by this TMDL.

This TMDL must be written to reflect ultimate attainment of the TDG water quality standard. Fish passage requirements can be facilitated under an implementation plan, but the clear expectation of the Clean Water Act is that water quality standards will be attained in a limited amount of time. NMFS and EPA have been discussing how to meet biological performance standards under the Endangered Species Act at the same time as meeting the water quality standards of the Clean Water Act. However, the primary purpose of this TMDL must be to comply with the Clean Water Act, although finding a means of compliance with both laws is also a goal.

Geographic Extent

This TMDL applies to the Columbia River mainstem from the confluence of the Snake and Columbia rivers to its mouth at the Pacific Ocean.

The laws of the state of Oregon apply to the river's southern half from its point of entry into Eastern Oregon from the state of Washington. This takes in seven river segments as follows:

- The mouth to Tenasillahe Island. Segment number COLU0
- Tenasillahe Island to Willamette River. Segment number COLU037
- Willamette River to Bonneville Dam. Segment number COLU102.
- Bonneville Dam to The Dalles Dam. Segment number COLU146.
- The Dalles Dam to John Day Dam. Segment number COLU191.6.
- John Day Dam to McNary Dam. Segment number COLU215.6.
- McNary Dam to the Washington border. Segment Number COLU292.

These seven segments fall on the Columbia River mainstem. The hydrologic unit code for the Columbia Basin is 1707. All of these waters have been identified as impaired and have been included on Oregon's 1998 303(d) list.

The laws of the Washington apply to the entire Columbia River from the mouth of the Snake River to the Oregon border in Wallula Gap, and to the northern half of the river from there to the mouth. All of these waters have been included on Washington's 1996 303(d) list, and have been identified as impaired or have been included on Washington's 1998 303(d) list. The segments covered by this TMDL are listed in Table 2, along with the Water Resource Inventory Area (WRIA) and Waterbody Identification (WBID) numbers.

TMDLs are also planned for the Lower Snake River (Clearwater River to confluence with the Columbia River), and for the Mid-Columbia River (Canada border to confluence with Snake River). Those two TMDLs at their downstream end will address compliance with this TMDL at its upstream end.

Table 2: Washington's Lower Columbia River TDG Listed and Impaired Segments

Segment description	WRIA	WBID	1996 303(d) listings	1998 303(d) listings	1998 impaired but unlisted
Bonneville Dam to Mouth	(24 – 28)	WA-CR-1010	1		
Willapa	24	NN57SG		1	
Grays-Elokoman	25	NN57SG		1	
Cowlitz	26	NN57SG			1
Lewis	27	NN57SG		1	
Salmon-Washougal	28	NN57SG		6	
McNary Dam to Bonneville Dam	(28 – 31)	WA-CR-1020	1		
Salmon-Washougal	28	NN57SG		2	
Wind-White Salmon	29	NN57SG			1
Klickitat	30	NN57SG		3	
Rock-Glade	31	NN57SG		3	
Oregon Border to McNary Dam	(31)	WA-CR-1026	1		
Rock-Glade	31	NN57SG		2	
Snake River to Oregon Border	(31 – 32)	WA-CR-1028			
Rock-Glade	31	NN57SG			1
Walla Walla	32	NN57SG			1
Totals			3	19	4

Total Dissolved Gas Water Quality Standards

For waters that are shared by two states, water quality must meet the standards of both states. For this TMDL, the standards of the two states are virtually identical.

State of Oregon Standards

Oregon's Water Quality Standards are contained in Oregon Administrative Rules (OAR) 340, Division 41. The standards relevant to the total dissolved gas (TDG) TMDL [OAR 340-041-0205(2)(n)] are:

- (A) *The concentration of total dissolved gas relative to atmospheric pressure at the point of sample collection shall not exceed 110 percent of saturation, except when stream flow exceeds the ten-year, seven-day average flood. However, for Hatchery receiving waters and waters of less than two feet in depth, the concentration of total dissolved gas relative to atmospheric pressure at the point of sample collection shall not exceed 105 percent of saturation;*
- (B) *The Commission may modify the total dissolved gas criteria in the Columbia River for the purpose of allowing increased spill for salmonid migration. The Commission must find that:*
 - (i) *Failure to act would result in greater harm to salmonid stock survival through in-river migration than would occur by increased spill;*
 - (ii) *The modified total dissolved gas criteria associated with the increased spill provides a reasonable balance of the risk of impairment due to elevated total dissolved gas to both resident biological communities and other migrating fish and to migrating adult and juvenile salmonids when compared to other options for in-river migration of salmon;*
 - (iii) *Adequate data will exist to determine compliance with the standards; and*
 - (iv) *Biological monitoring is occurring to document that the migratory salmonid and resident biological communities are being protected.*
- (C) *The Commission will give public notice and notify all known interested parties and will make provision for opportunity to be heard and comment on the evidence presented by others, except that the Director may modify the total dissolved gas criteria for emergencies for a period not exceeding 48 hours;*
- (D) *The Commission may, at its discretion, consider alternative modes of migration.*

"Commission" means the Oregon State Environmental Quality Commission.

State of Washington Standards

Washington's Water Quality Standards, Chapter 173-201A Washington Administrative Code (WAC), classify the reaches of the Columbia River covered by this TMDL as Class A. The following standards specifically apply to this TMDL:

WAC 173-201A-030:

Total dissolved gas shall not exceed 110 percent of saturation at any point of sample collection.

WAC 173-201A-060:

(4)(a) The water quality criteria herein established for total dissolved gas shall not apply when the stream flow exceeds the seven-day, ten-year frequency flood.

(b) The total dissolved gas criteria may be adjusted to aid fish passage over hydroelectric dams when consistent with a department approved gas abatement plan. This gas abatement plan must be accompanied by fisheries management and physical and biological monitoring plans. The elevated total dissolved gas levels are intended to allow increased fish passage without causing more harm to fish populations than caused by turbine fish passage. The specific allowances for total dissolved gas exceedances are listed as special conditions for sections of the Snake and Columbia rivers in WAC 173-201A-130 and as shown in the following exemption:

Special fish passage exemption for sections of the Snake and Columbia rivers: When spilling water at dams is necessary to aid fish passage, total dissolved gas must not exceed an average of one hundred fifteen percent as measured at Camas/Washougal below Bonneville dam or as measured in the forebays of the next downstream dams. Total dissolved gas must also not exceed an average of one hundred twenty percent as measured in the tailraces of each dam. These averages are based on the twelve highest hourly readings in any one day of total dissolved gas. In addition, there is a maximum total dissolved gas one hour average of one hundred twenty-five percent, relative to atmospheric pressure, during spillage for fish passage. These special conditions for total dissolved gas in the Snake and Columbia rivers are viewed as temporary and are to be reviewed by the year 2003.

(c) Nothing in these special conditions allows an impact to existing and characteristic uses.

The “ten-year, seven-day average flood” or “seven-day, ten-year frequency flood” are usually termed the “7Q10” flood flows.

The criteria in WAC section 173-201A-060 are sometimes termed the “waiver” TDG limits for fish passage. Oregon establishes “waiver” limits on an annual basis using the procedures outlined above. Since the Oregon waiver limits are established annually, and the Washington waiver limits are to be viewed as temporary, this TMDL cannot use the waiver limits as a compliance endpoint. TMDLs must by law ensure compliance with the existing permanent standards. There are separate processes to revise the water quality standards and establish new criteria. If the TDG standards are ever revised in a way that affects this TMDL, then the TMDL would need to be revisited and modified at that time.

Basin Assessment

Total dissolved gas (TDG) levels can be increased above the water quality criteria by spilling water over spillways of dams on the Columbia River. These are the major sources of elevated TDG in the Columbia mainstem. There are a variety of other ways that TDG may be elevated: passage of water through turbines, fishways, or locks; and natural processes such as a low barometric pressure, high water temperatures, or high levels of biological productivity. However, the vast majority of the high TDG levels found in the Columbia River are caused by spills from dams. Man-made sources other than spill are minor, and can be considered negligible. Natural processes may have a significant effect on TDG, and are addressed in setting load allocations.

Spill at dams occurs for several reasons:

1. To enhance downstream fish passage (to meet “Performance Standards” for fish survival under the Endangered Species Act).
2. To bypass water that exceeds the available hydraulic capacity of the powerhouse due to:
 - High river flows.
 - Lack of power market.
 - Maintenance, break-down, or other reasons.

The first type of spill is sometimes called “voluntary spill”, while the second types are termed “involuntary spills”. Figure 2 illustrates the typical configuration of a dam on the Lower Columbia River.

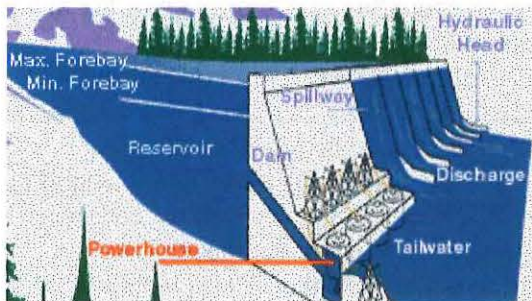


Figure 2: Typical Dam Configuration

Spill for Fish Passage

Spill for purposes of fish passage involves water deliberately released over dam spillways, rather than being discharged through turbines or fish bypass facilities. The intent is to reduce turbine and bypass mortalities. For example, Schoeneman et al. (1961) found that mortality in Chinook juveniles spilled over McNary Dam (Columbia River) and Big Cliff Dam (Santiam River) was

less than two percent. Subsequent studies confirmed this estimate, and research is ongoing. The requirement for spring and summer spills to pass juvenile salmon was included in the 1995 and 2000 Biological Opinions for the Columbia River dam operations. To comply with these Biological Opinions, Oregon and Washington have established the waiver TDG limits to allow limited fish passage spill.

In Oregon, the Environmental Quality Commission has granted variances to the TDG standard to enable spill for salmonid juvenile passage for species listed under the federal Endangered Species Act. This has occurred annually since 1994. Variances usually require TDG levels not exceed 120 percent saturation relative to atmospheric pressure in the tailrace of the spilling dam, and 115 percent TDG saturation relative to atmospheric pressure as measured in the forebay of the next dam downstream. Variance periods usually extend from the middle of April through the end of August each year. Additional variances have been granted each year for spill over Bonneville Dam for up to ten days each March to assist with passage of the Spring Creek National Fish Hatchery Tule Chinook release. One variance has also been given for John Day Dam to enable testing of flow deflectors.

Washington's approach to conform with the Biological Opinion was to adopt a rule revision specifying the TDG criteria for fish passage spill (see above). These waiver limits have generally been identical to Oregon's annual variances.

Involuntary Spill

Like spills for fish passage, involuntary spill involves water being discharged over dam spillways. The causes and intended consequences, though, are different. As its name suggests, there is no choice involved in "involuntary" spill. At times of very high river flows, the quantity of water exceeds the capacity of a dam to either temporarily store the water upstream of the dam or pass the water through its turbines. In these circumstances, water is released over the spillway, because there is nowhere else for it to go. The Columbia River hydropower system in Washington and Oregon is somewhat unique in that regard. With the exception of Washington's Grand Coulee Dam, it contains very little storage potential relative to the quantity of spring runoff. At times of rapid runoff, the dams cannot constrain the quantity of water, and it is spilled with attendant high TDG levels. Often dissolved gas levels from involuntary spill exceed those experienced during periods of spill for fish. However, high river flows under these circumstances are often in excess of the 7Q10 high flow, in which case the TDG standard would not apply.

Involuntary spill as a result of lack of power market is a variant of the above. In this scenario, the power marketing authority cannot sell any more power, and even though turbines are available, water is released over the spillway because there is nowhere for electricity generated to go. Running water through the turbines with no load increases wear and tear with attendant higher maintenance costs, and also may reduce fish survival. Lack of power load demand can occur at times of both high and low flows (e.g., in the spring or fall when power demands are low both in California and the Pacific Northwest). Also releases from upstream storage dams during high load times (morning and evening) can result in high flows at downstream dams during low load times (middle of the night), causing an involuntary spill.

Involuntary spill can also occur at low flows when powerhouses are taken off-line for maintenance, breakdown, or other needs. Maintenance is usually scheduled to prevent a spill, by doing maintenance on one or two generating units at a time during low power demand periods. Nonetheless, releases from upstream dams can complicate management of spills during powerhouse maintenance. Also, unscheduled maintenance and repairs sometimes occur, which may require a powerhouse shut-down and involuntary spill.

In general, involuntary spill conditions at the “run of the river” dams may result from reservoir control and power marketing decisions made by the federal project operators having storage capacity upstream. Improved accuracy in water forecasting could help avoid understating or overstating available water supply, which could cause the federal project operators to spill water because they left too little or too much room in the reservoirs. Additionally, a water management plan could also identify uncoordinated releases and manage intra-day fluctuations in river flows. These events often result in isolated involuntary spill events, because reservoir elevation must be maintained within limits at run of the river projects.

Deviation of Ambient Conditions from Water Quality Standards

TDG Generation from Spills

Spills for fish passage typically occur during the spring and summer months. During periods of fish spills, deviations of ambient conditions from the water quality standard are frequent but usually small. This is because spill quantities are managed to meet the waiver levels for fish passage: either variances granted by the state of Oregon or Washington's Special Conditions (described above). For the past six years, Oregon has granted a variance to its water quality standard for TDG to facilitate fish passage. These variances are virtually identical to Washington's Special Conditions, which allow TDG levels to rise to 120 percent of saturation relative to atmospheric pressure in the tailrace of the dam that is spilling, and 115 percent in the forebay of the next dam downstream.

The excursions beyond this level usually have been no more than one or two percent above the variance request, and occur as a result of the imprecision in reproducing exact TDG levels at specific spillway gate set points due to all the sources of TDG variability described. Generally, the fishery management agencies have sought spill quantities in order to remain right at the TDG variance limit at the fixed monitoring station sites. Any small change in conditions that influence TDG, such as change in barometric pressure, water temperature, incoming gas, total river flow or tailwater elevation will cause an exceedance when operated this way. Also, these levels do not meet the 110 percent criterion of either state.

Involuntary spills can occur at any time. Involuntary spills caused by river flows above powerhouse capacity are most likely to occur from late fall to early summer, depending on rainfall or snowmelt in the tributary watersheds. However, high flows could also occur due to releases from upstream dams with significant storage, such as Grand Coulee or the Canadian dams. Involuntary spill due to low power demand is most likely in the spring, although this is also dependent on regional power management by the Bonneville Power Administration. Loss of powerhouse capacity to maintenance or repair is usually scheduled so that no more than one or two turbines are out at any given time, but an emergency powerhouse shutdown and spill could occur at any time as the result of a fire or other disaster.

At times of involuntary spill, exceedances above the standard can rise dramatically, peaking above 130 percent of saturation, and even 140 percent. Absolute TDG pressures at these levels, which usually only occur in shallow waters, can be lethal to fish. Usually fish are protected from fatal pressures in deeper waters by compensation from hydrostatic pressures, which reduces absolute TDG levels.

For all spills, the highest TDG levels, and therefore the area most likely to exceed standards, is directly below the spillway. In this area, the plunging and air entrainment of the spill (aerated zone) generates high levels of TDG, but then quickly degasses while the water remains turbulent

and full of bubbles. However, as this water moves from the stilling basin into the tailrace, degassing slows and the TDG levels stabilize.

In the pools, gas exchange rates increase as wind speeds rise, which produces degassing. If conditions are still and TDG concentrations are constant, the percent saturation of TDG can increase if the water temperature increases or barometric pressure drops (Figure 3). Also, primary productivity (periods of algal growth) can increase dissolved oxygen levels, which results in a higher TDG percent saturation. However, because oxygen is metabolized by the aquatic life, the physical effects of supersaturated oxygen are minor compared to nitrogen and can be considered *de minimus*.

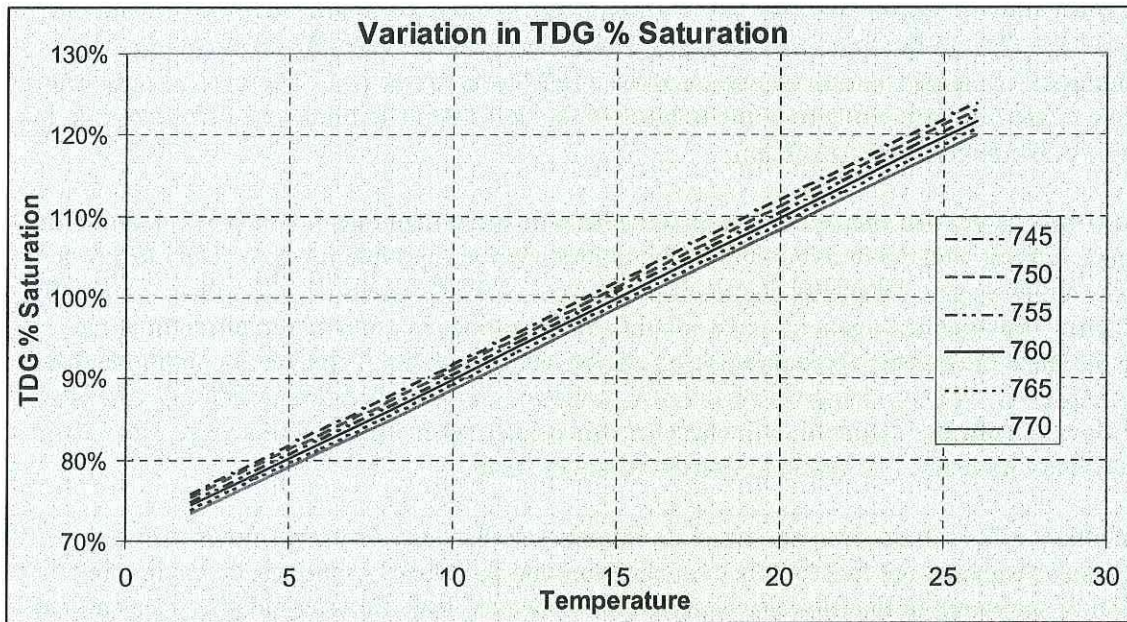


Figure 3: Variation in TDG Percent Saturation with Temperature and Barometric Pressure at Constant Concentration

Due to the hydraulic properties of the spill, a proportion of the powerhouse flow entrains with the spill and is aerated as if it were part of the spill. This amount may be negligible where physical structures separate powerhouse from spillway flows, such as islands at Bonneville Dam. The rest of the powerhouse flow mixes with the spillway flows at varying rates, sometimes quite slowly, as the river moves downstream from the dam. Powerhouse TDG levels are typically identical with forebay TDG levels – very little gas exchange occurs as water passes through the powerhouse. Therefore, if the forebay TDG levels are lower than levels below the spillway, the powerhouse flows that mix slowly and farther downstream will reduce the TDG levels in the spillway waters by dilution.

TDG Impacts on Aquatic Life

Fish and other aquatic life inhabiting water supersaturated with TDG may tend to display signs of difficulty, especially if higher dissolved gas pressure gradients occur. Gas bubbles form only when the TDG pressure is greater than the sum of the compensating pressures. Compensating pressures include water (hydrostatic) and barometric pressure. For organisms, tissue or blood pressure may add to the compensating pressures. Gas bubble development in aquatic organisms is then a result of excessive uncompensated gas pressure. The primary actions which will enhance the likelihood of bubbles forming in the fish are (1) continued exposure to the highly saturated water, (2) rising higher in the water column bringing about a higher pressure gradient (decreased hydrostatic pressure), (3) decreases in barometric pressure, and (4) increasing water temperature.

The damage caused by release of gas bubbles in the affected organism is termed gas bubble trauma or gas bubble disease. There is a wide body of research on this condition. Effects of gas bubble trauma include emphysema, circulatory emboli, tissue necrosis, and hemorrhages in brain, muscle, gonads, and eyes (Weitkamp and Katz 1980). Nebeker et al. (1976) found that death in adults was due to massive blockages of blood flow from gas emboli in the heart, gills, and other capillary beds. Investigators in the 1970s reported many and varied lesions in fish exposed in the 115%-to-120% TDG range in shallow water. At higher gas exposures (e.g., 120% to 130% TDG) death frequently ensued before gas bubble trauma signs appeared (Bouck et al. 1976). External signs of gas bubble trauma (e.g., blisters forming in the mouth and fins of fish exposed to chronic high gas) often disappeared rapidly after death. The signs were largely gone within 24 hours (Countant and Genoway 1968).

Water quality standards for TDG were set at 110 percent, the threshold for chronic effects found in the literature. The severity of gas bubble trauma increases as the absolute TDG level increases, until at higher levels lethality can occur swiftly. However, there are a number of factors that affect a particular organism's response to high TDG levels. Different species respond to changing TDG differently, and the response also varies by life stage. Juvenile salmonids appear to be relatively resilient compared to adults or to non-salmonids.

The duration of exposure to high TDG appears to have an impact on the severity of gas bubble trauma symptoms. Although the standards are not specific on this issue, defining a duration of exposure to be applied to the criteria is appropriate. The waiver limits developed for fish passage provide two levels: a one hour maximum, and the average of the twelve highest hourly readings in any 24-hour period. Based on the 110 percent criteria representing chronic impacts, use of the longer averaging period is appropriate.

Extensive research has been conducted on the effects of TDG on anadromous fish in the Columbia River. It is beyond the scope of this TMDL to review that literature. The Clean Water Act requires compliance with existing standards, although existing research can be used to aid in interpretation of those standards. A review of the standards to look at adoption of different criteria, duration, frequency, and spatial application, if appropriate, would occur through a completely separate process. If new standards were adopted, then the TMDL could be reviewed and possibly revised.

It is possible that TDG became elevated under historical natural conditions in the Columbia River, such as below Celilo Falls. However, elevated TDG probably dissipated quickly as it passed over shallows and rapids. Conditions different from natural conditions exist at the Columbia dams that create high TDG levels. These conditions include the height of the dams, the shape of the spillways, and the presence of the long deep pools below the dams. Allowing a point of compliance below the aerated portion of the tailrace can be considered to reflect gas generation patterns in a natural system.

Monitoring of TDG

Routine monitoring of instream TDG levels occur at fixed monitoring station (FMS) sites above and below each dam. The tailwater FMS sites in some cases may be a mile or two downstream of the dam. The FMS sites have been the primary point of compliance and assessment of TDG levels, especially for compliance with waiver limits during fish passage spills. The locations have been chosen for a variety of reasons, a primary one being the logistics and feasibility of long-term monitoring. However, studies suggest that some of these sites are not collecting data that are representative of river conditions. The FMS sites will continue to be the primary location for determining compliance with waiver limits used for fish passage management. For the purposes of TMDL compliance, TMDL requirements do not need to drive FMS siting issues.

The interagency Water Quality Team manages issues regarding the fish passage program and FMS. The Water Quality Team is jointly chaired by NMFS and EPA. It is charged with providing technical advice and guidance on temperature and total dissolved gas water quality in the context of the NMFS 2000 Biological Opinion relating to the Columbia River Hydropower System. A subgroup of that team has been addressing concerns with the FMS sites, and the appropriateness of the current FMS locations has been the subject of vigorous debate between the resource agencies and U.S. Army Corps of Engineers within the subgroup. The subgroup has concluded that the “representativeness” of FMS data is a very difficult characteristic to define. The TDG measurements at a given location in the river are influenced significantly by environmental factors such as water temperature, biological productivity, barometric pressure, and wind, as well as the spill. The Water Quality Team will continue to study and discuss these issues in order to achieve a mutually satisfactory monitoring end product.

To gain additional knowledge of TDG conditions in the river, the Corps has conducted a number of detailed special studies of TDG levels below the dams (e.g., Schneider and Wilhelms, 1996; Wilhelms and Schneider, 1997a; Wilhelms and Schneider, 1997b; Schneider and Wilhelms, 1999). These studies have shown that TDG levels measured at the FMS sites are usually lower than levels longitudinally upstream towards the spillway, may be lower than levels laterally across the river if powerhouse flows are not fully mixed, and in some conditions may be lower than levels longitudinally downstream.

Loading Capacity

Analysis of TDG generation processes

Introduction

The discussion that follows is taken (sometimes verbatim) from the Dissolved Gas Abatement Study conducted by the U.S. Army Corps of Engineers, and in particular from Appendix G: "Spillway Discharge Production of Total Dissolved Gas Pressure" (USACE, 2001a).

The material in this section provides a general overview of TDG generation processes at the Lower Columbia River dams. Specific details may change over time as structural changes are made to these projects. These processes provide the basis for the determination of loading capacity.

The TDG exchange associated with spillway operation at a dam is a process that couples both the hydrodynamic and mass exchange processes. The hydrodynamics are shaped by the structural characteristics of spillway, stilling basin, and tailrace channel as well as the operating conditions that define the spill pattern, turbine usage, and tailwater stage. The hydrodynamic conditions are influenced to a much smaller extent by the presence of entrained bubbles.

The air entrainment will influence the density of the two-phase flow and impose a vertical momentum component associated with the buoyancy in the entrained air. The entrained air content can result in a bulking of the tailwater elevation and influence the local pressure field. The transfer of atmospheric gasses occurs at the air-water interface, which is composed of the surface area of entrained air at the water surface. The exchange of atmospheric gases is greatly accelerated when entrained air is exposed to elevated pressures because of the higher saturation concentrations. The pressure time history of entrained air will, therefore, be critical in determining the exchange of atmospheric gases during spill.

The volume, bubble size, and flow path of entrained air will be dependent on the hydrodynamic conditions associated with project releases. The bubble size has been found to be a function of the velocity fluctuations and turbulent eddy length. The bubble size can also be influenced by the coalescence of bubbles during high air concentration conditions. The volume of air entrained is a function of the interaction of the spillway jet with the tailwater. The entrained bubble flow path will be dependent upon the development of the spillway jet in the stilling basin and associated secondary circulation patterns. The turbulence characteristics are important to the vertical distribution of bubbles and the determination of entrainment and de-entrainment rates.

Physical Processes

The exchange of TDG is considered to be a first order process where the rate of change of atmospheric gases is directly proportional (linear relationship) to the ambient concentration. The driving force in the transfer process is the difference between the TDG concentration in the water

and the saturation concentration with the air. The saturation concentration in bubbly flow will be greater than that generated for non-bubbly flow where the saturation concentration is determined at the air-water interface. The flux of atmospheric gasses across the air-water interface is typically described by Equation 1.

$$J = K_l(C_s - C) \quad \text{Equation 1}$$

Where:

- J = gas flux (mass per surface area per time)
- K_l = the composite liquid film coefficient
- C_s = the saturation concentration (mass per volume)
- C = the ambient concentration in water (mass per volume)

The rate of change of concentration in a well-mixed control volume, $\frac{dC}{dt}$, can be estimated by multiplying the mass flux by the surface area and dividing by the volume over which transfer occurs as shown by Equation 2:

$$\frac{dC}{dt} = K_l \frac{A}{V} (C_s - C) \quad \text{Equation 2}$$

Where:

- A = the surface area associated with the control volume
- V = the volume of the waterbody over which transfer occurs

This relationship shows the general dependencies of the mass transfer process. In cases where large volumes of air are entrained, the time rate of change of TDG concentrations can be quite large, as the ratio of surface area to volume becomes large. The entrainment of air will also result in a significant increase in the saturation concentration of atmospheric gases, thereby increasing the driving potential over which mass transfer takes place. Outside of the region of aerated flow during transport through the pools, the contact area is limited to the water surface and the ratio of the surface area to the water volume becomes small, thereby limiting the change in TDG concentration. The turbulent mixing will influence the surface renewal rate and hence the magnitude of the exchange coefficient K_l .

Equation 2 can be integrated, provided the exchange coefficient, area, and volume are held constant over the time of flow. The initial TDG concentration at time=0 is defined as C_i and the final TDG concentration time=t is defined as C_f shown in Equation 3. The resultant concentration C_f exponentially approaches the saturation concentration for conditions where the

term $K_t \frac{A}{V}$ is large. The final concentration becomes independent of the initial concentration under these conditions.

$$C_f = C_s(1 - e^{-K_t \frac{A}{V} t}) + C_i e^{-K_t \frac{A}{V} t} \quad \text{Equation 3}$$

Modeling TDG Transfer

The TDG exchange process involves the coupled interaction of project hydrodynamics and mass transfer between the atmosphere and the water column. Mechanistic models of TDG transfer must simulate the two-phase (liquid and gas phases) flow conditions that govern the exchange process. Several mechanistic models have been developed to simulate the TDG exchange in spillway flows.

Orlins and Gulliver (2000) solved the advection-diffusion equation for spillway flows at Wanapum Dam for different spillway deflector designs. Physical model data were used to develop the hydraulic descriptions of the flow conditions throughout the stilling basin and tailrace channel. The model results were also compared to observations of TDG pressure collected during field studies of the existing conditions.

A second model developed by Urban et al. (2000), used the same mass transport relationships together with the hydraulic descriptions associated with plunging jets. This approach does not require the specific hydraulic information to be derived from a physical model, but it can be applied to any hydraulic structure that has plunging jet flow. This model accounted for the TDG exchange occurring across the bubble-water interface and the water surface. This model was calibrated to observations of TDG exchange at The Dalles Lock and Dam (The Dalles) and was developed as part of the U.S. Army Corps of Engineers Dissolved Gas Abatement Study (DGAS). This model successfully simulated the absorption and desorption exchange caused by the highly aerated flow during spillway operations.

As a part of its DGAS study, the Corps decided to use empirically derived equations of TDG exchange, based on the recognition that data were not available to support mechanistic models of the mass exchange process at all the projects in the Columbia/Snake River system. The greatest unknowns associated with the development of a mechanistic model of highly aerated flow conditions in a stilling basin revolve around the entrainment of air and subsequent transport of the bubbles. The surface area responsible for mass transfer will require estimates of the total volume and bubble size distribution of entrained air. In addition, the roughened water surface is thought to contribute to the net exchange of atmospheric gasses. The pressure time history of entrained air would also need to be accounted for to determine the driving potential for TDG mass exchange.

A description of the highly complex and turbulent three-dimensional flow patterns in the stilling basin and adjoining tailrace channel would need to be defined for a wide range of operating conditions. The influence of turbulence on both the mass exchange coefficients and redistribution of buoyant air bubbles would also need to be quantified throughout a large channel reach and for a wide range of operating conditions.

The flow conditions generated by spillway flow deflectors have been found to be sensitive to both the unit spillway discharge and submergence of the flow deflector. The presence of flow deflectors has significantly changed the rate of energy dissipation in the stilling basin and promotes the lateral entrainment of flow. These entrainment flows are often derived from powerhouse releases, which reduce the available volume of water for dilution of spillway releases.

TDG Exchange Formulation

The accumulated knowledge generated through observations of flow conditions during spill at Columbia/Snake River projects and in-scale physical models at the Waterways Experiment Station in Vicksburg, MS, along with mass exchange data collected during site-specific near-field TDG exchange studies and from the fixed monitoring stations, has led to the development of a model for TDG exchange at dams throughout the Columbia/Snake river system for the federal hydropower projects. The general framework is based upon the observation that TDG exchange is an equilibrium process that is associated with highly aerated flow conditions that develop below the spillway. It recognizes that flow passing through the powerhouse is not generally exposed to entrained air under pressure and, therefore, does not experience a significant change in TDG pressure. It also recognizes that powerhouse releases can directly interact with the aerated flow conditions below the spillway and experience similar changes in TDG pressure that are found in spill.

The large volume of air entrained into spillway releases initiates the TDG exchange in spill. This entrained air is exposed to elevated total pressures and the resulting elevated saturation concentrations. The exposure of the bubble to elevated saturation concentrations greatly accelerates the mass exchange between the bubble and water. The amount and trajectory of entrained air is greatly influenced by the structural configuration of the spillway and the energy associated with a given spill.

The presence of spillway flow deflectors directs spill throughout the upper portion of the stilling basin, thereby preventing the plunging of flow and transport of bubbles throughout the depth of the stilling basin. Spillway flow deflectors also greatly change the rate of energy dissipation in the stilling basin, transferring greater energy and entrained air into the receiving tailrace channel.

Generally, spill water experiences a rapid absorption of TDG pressure throughout the stilling basin region where the air content, depth of flow, flow velocity, and turbulence intensity are generally high. As the spillway flows move out into the tailrace channel, the net mass transfer reverses and component gases are stripped from the water column as entrained air rises and is vented back to the atmosphere. The region of rapid mass exchange is limited to the highly aerated flow conditions within 1,000 feet of the spillway.

In general, downstream of the aerated flow conditions, the major changes to the TDG pressures occur primarily through the redistribution of TDG pressures through transport and mixing processes. The in-pool equilibrium process established at the water surface is chiefly responsible for changes to the total TDG loading in the river.

One of the more important observations regarding TDG exchange in spillway flow is the high rate of mass exchange that occurs below a spillway. The resultant TDG pressure generated during a spill is almost entirely determined by physical conditions that develop below the spillway and is effectively independent from the initial TDG content of this water in the forebay. The TDG exchange in spill is not a cumulative process where higher forebay TDG pressures will generate yet higher TDG pressures downstream in spillway flow. The TDG exchange in spill is an equilibrium process where the time history of entrained air below the spillway will determine the resultant TDG pressure exiting the vicinity of the dam.

One consequence of this observation is that spilling water can result in a net reduction in the TDG loading in a system if forebay levels are above a certain value. This was a common occurrence at The Dalles during the high-flow periods during 1997 where the forebay TDG exceeded 130 percent saturation. A second consequence of the rapid rate of TDG exchange in spill flow is that the influence from upstream projects on TDG loading will be passed downstream only through powerhouse releases. If project operations call for spilling a high percentage of the total river flow, the contribution of TDG loading generated from upstream projects will be greatly diminished below this project.

Given the conceptual framework for TDG exchange described above, the average TDG pressures generated from the operation of a dam can be represented by the mass conservation statement using TDG pressure shown in Equation 4:

$$P_{avg} = \frac{(Q_{sp} + Q_e)P_{sp} + (Q_{ph} - Q_e)P_{ph}}{Q_{sp} + Q_{ph}} \quad \text{Equation 4}$$

Where:

Q_{sp}	=	Spillway discharge [thousands of cubic feet per second (kcfs)]
Q_{ph}	=	Powerhouse discharge (kcfs)
Q_e	=	Entrainment of powerhouse discharge in aerated spill (kcfs)
Q_{se}	=	$Q_{sp} + Q_e$
	=	Effective spillway discharge (kcfs)
Q_{tot}	=	$Q_{sp} + Q_{ph}$
	=	Total river flow (kcfs)
P_{ph}	=	TDG pressure releases from the powerhouse [mm Hg]
P_{sp}	=	TDG pressure associated with spillway flows (mm Hg)
P_{avg}	=	Average TDG pressure associated with all project flows (mm Hg)

This conservation statement assumes the water temperature of powerhouse and spillway flows are similar, and that the heat exchange during passage through the dam and aerated flow region is minimal. Some projects have other water passage routes besides the powerhouse and spillway, such as fish ladders, lock exchange, juvenile bypass systems, and other miscellaneous sources.

These sources of water have generally been lumped into powerhouse flows and are not accounted for separately.

Equation 4 contains three unknowns: Q_e = powerhouse entrainment discharge, $P_{sp} = TDG$ pressure associated with spillway flows, and $P_{ph} = TDG$ pressure associated with powerhouse releases. The TDG pressure associated with the powerhouse release is generally assumed to be equivalent to the TDG pressure observed in the forebay. Numerous data sets support the conclusion that turbine passage does not change the TDG content in powerhouse releases. All of the near-field TDG exchange studies have deployed TDG instruments in the forebay of a project and directly below the powerhouse in the water recently discharged through the turbines. An example of this type of data is shown in Figure 4 during the 1998 post-deflector John Day Lock and Dam (John Day) TDG exchange study (Schneider and Wilhelms, 1999a).

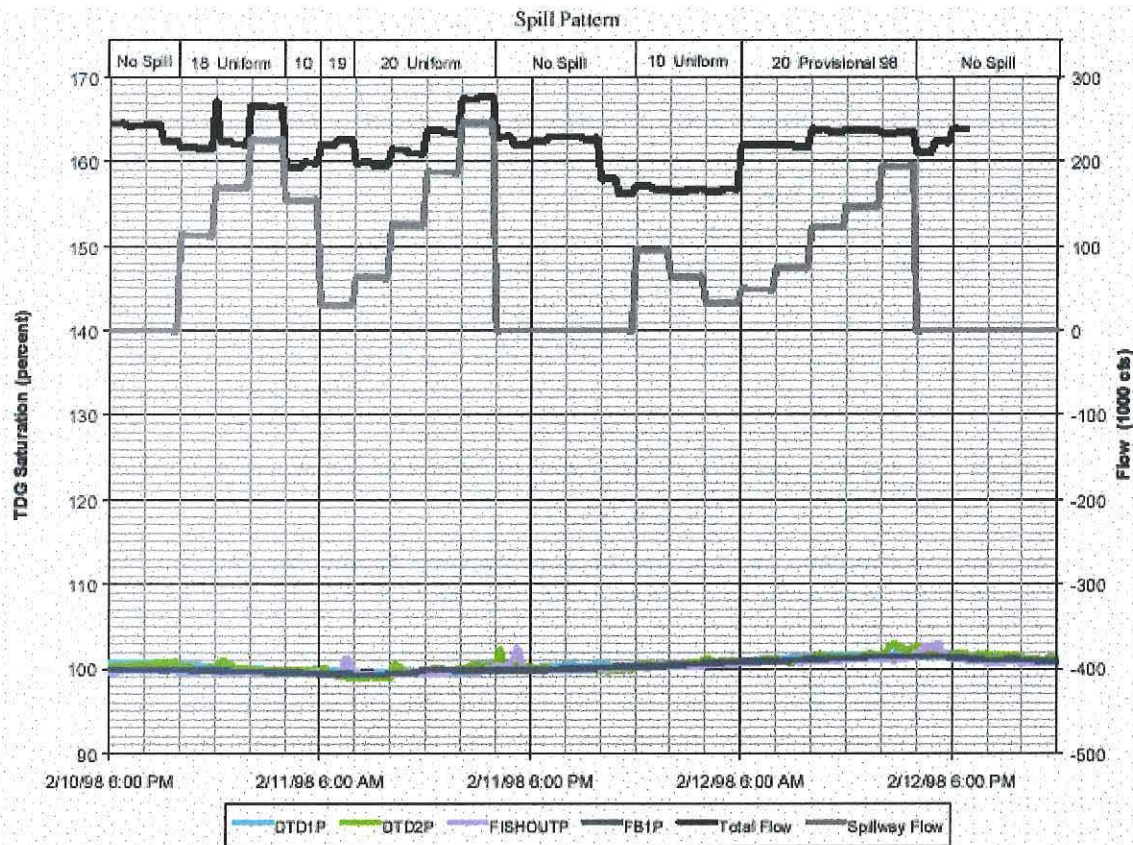


Figure 4: TDS Saturation in the Forebay and Below the Powerhouse Draft Tube Deck of John Day Dam, February 1998

The TDG instruments were deployed in the forebay of John Day (station FB1P) and in the tailwater below powerhouse draft tube deck (station DTD1P and DTD2P), near the fish outfall (FISHOUTP). The TDG pressure was logged on a 15-minute interval at each of these stations

throughout the testing period. All four stations recorded the same TDG saturations throughout the testing period, even during operating events calling for spilling nearly the entire river on February 11 and 12. The TDG pressure from the forebay and tailwater fixed monitoring stations should also be similar during periods of no spill, provided that these stations are sampling water with similar water temperatures. In cases where a turbine aspirates air or air is injected into a turbine to smooth out operation, the above assumption will not hold.

Spillway TDG Exchange

The TDG exchange associated with spillway flows has been found to be governed by the geometry of the spillway (standard or modified with flow deflector), unit spillway discharge, and depth of the tailrace channel. The independent variable used in determining the exchange of TDG pressure in spillway releases is the delta TDG pressure (ΔP) defined by the difference between the TDG pressure (P_{tdg}) and the local barometric pressure (P_{atm}) as listed in Equation 5. The selection of TDG pressure as expressed as the excess pressure above atmospheric pressure accounts for the variation in the barometric pressure as a component of the total pressure.

$$\Delta P = P_{tdg} - P_{atm} \quad \text{Equation 5}$$

Restating the exchange of atmospheric gases in terms of mass concentrations introduces a second variable (water temperature) into the calculation. The added errors in calculating the TDG concentration as a function of temperature and TDG pressure were the main reasons for using pressure as the independent variable. The TDG concentration would also vary seasonally with the change in water temperature.

The TDG pressure is often summarized in terms of the percent saturation or supersaturation. The TDG saturation (S_{tdg}) is determined by normalizing the TDG pressure by the local barometric pressure as expressed as a percentage. The delta pressure has always been found to be a positive value when spillway flows are sampled. The TDG saturation (S_{tdg}) is determined by Equation 6.

$$S_{tdg} = \frac{P_{tdg}}{P_{atm}} * 100 = \frac{(P_{atm} + \Delta P)}{P_{atm}} * 100 \quad \text{Equation 6}$$

Unit Spillway Discharge

The TDG exchange associated with spillway flows has been found to be a function of unit spillway discharge (q_s) and the tailrace channel depth (D_{tw}). The unit spillway discharge is a surrogate measure for the velocity, momentum, and exposure time of aerated flow associated with spillway discharge. The higher the unit spillway discharge, the greater the TDG exchange during spillway flows. An example of the dependency between the change in TDG pressure and unit spillway discharge is shown in Figure 5 at Ice Harbor Lock and Dam (Ice Harbor).

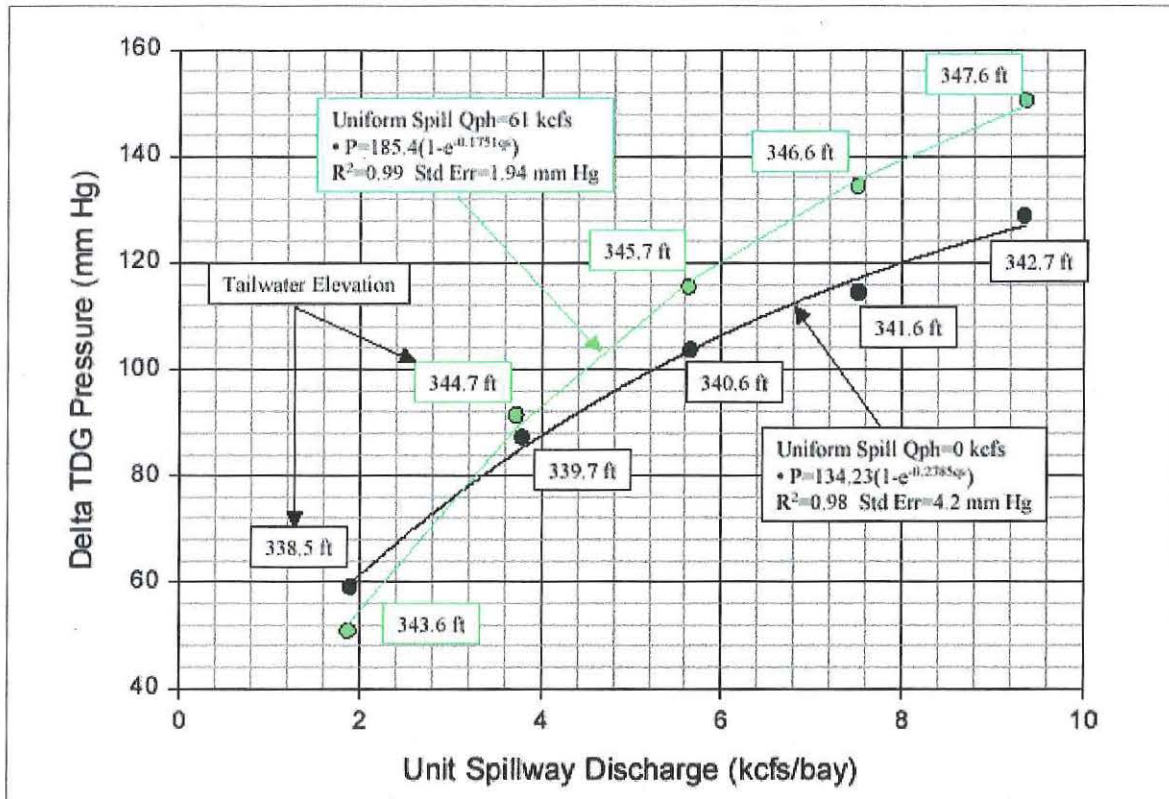


Figure 5: TDG Pressure (Delta P) as a Function of Unit Spillway Discharge and Tailwater Elevation at Ice Harbor Dam, March 1998

This figure shows two sets of tests involving a uniform spill pattern over eight bays with flow deflectors. The two sets of tests were distinguished only by the presence of powerhouse releases. In both cases, the resultant spill TDG pressure was found to be an exponential function of the unit spillway discharge. The determination of a single representative unit discharge becomes problematic in the face of a non-uniform spill pattern. The flow-weighted specific discharge was found to be a better determinant of spillway TDG production in cases where the spill pattern is highly non-uniform. The flow-weighted unit discharge places greater weight on bays with the higher discharges. The following Equation 7 describes the determination of the specific discharge used in the estimation of TDG exchange relationships:

$$q_s = \frac{\sum_{i=1}^{nb} Q_i^2}{\sum_{i=1}^{nb} Q_i} \quad \text{Equation 7}$$

Where:

- q_s = Specific discharge (flow-weighted unit discharge)
- Q_i = Flow for spill bay i (for nb number of bays)

Depth of Flow

The large amount of energy associated with spillway releases has the capacity to transport entrained air throughout the water column. In many cases, the depth of flow is the limiting property in determining the extent of TDG exchange below a spillway. An example of the influence of the depth of flow on TDG exchange is shown in Figure 4 at Ice Harbor. The only difference between the two sets of data in this figure was the presence of powerhouse flow. The events with powerhouse flow resulted in higher TDG pressure than comparable spill events without powerhouse releases at higher spillway flows. The observed tailwater elevation is also listed in Figure 4 for each test event. The tailwater elevation was about five feet higher during the events corresponding with powerhouse operation.

The depth of flow in the tailrace channel was hypothesized to be more relevant to the exchange of TDG pressure than the depth of flow in the stilling basin because of the influence of the flow deflectors and resultant surface jet, and the high rate of mass exchange observed below the stilling basin. The average depth of flow downstream of the spilling basin was represented as the difference between the tailwater elevation as measured at the powerhouse tailwater gauge and the average tailrace channel elevation within 300 feet of the stilling basin. The tailrace channel reach within 300 feet of the stilling basin was selected because most of the TDG exchange (degassing) occurs in this region. A summary of project features at the time of the Corps DGAS study are listed in Table 3, including stilling basin elevation, deflector elevation, and tailrace channel elevation.

Table 3: Columbia River and Snake River Project Features (April 2001)

Project	Spillway Crest Elev. (ft)	Number Spillways: Deflectors		Deflector Elevation (ft)	Stilling Basin Elev. (ft)	Tailwater Channel Elev. (ft)	Min. Pool (ft)	Normal Tailwater Pool (ft)
		w/ w/out	w/out					
Bonneville	24	13	5	14/7 ¹	-16	-30	70	20
The Dalles	121	0	23	NA	55	58	155	80
John Day	210	18	2	148	114	125	257	162
McNary	291	18	4	256	228	235	335	267

Source: U.S. Army Corps of Engineers DGAS Study, Appendix G, p. G-8 (USACE, 2001a)

¹Existing deflectors/New deflectors installed 2001-02

The functional form of the relationship between the change in TDG pressure change and the prominent dependent variables unit spillway discharge and tailrace channel depth of flow, takes the same form as the exponential formulation shown in Equation 3. The delta TDG pressure was found to be a function of the product of the depth of flow and the exponential function of unit spillway discharge as shown in Equation 8.

$$\Delta P = C_1 D_{tw} (1 - e^{-C_2 q_s}) + C_3 \quad \text{Equation 8}$$

The coefficients C_1 , C_2 , and C_3 were determined from nonlinear regression analyses. The product of C_1 and the tailwater depth (D_{tw}) represents the effective saturation pressure in Equation 3 while the product of C_2 and the unit spillway discharge (q_s) reflects the combined contribution from the mass exchange coefficient, ratio of surface area to control volume, and time of exposure.

A second formulation used in this study relating the delta TDG pressure and independent variable involves a power series as shown in Equation 9. This equation can also result in a linear dependency between the delta TDG pressure and either tailwater depth or unit spillway discharge. A linear dependency in the tailwater depth occurs when $C_2=1$ and $C_3=0$. A linear dependency between TDG pressure and unit spillway discharge occurs when $C_2=0$ and $C_3=1$.

$$\Delta P = C_1 D_{tw}^{C_2} q_s^{C_3} + C_4 \quad \text{Equation 9}$$

Entrainment of Powerhouse Flow

The interaction of powerhouse flows and the highly aerated spillway releases can be considerable at many of the projects. Observations of the flow conditions downstream of projects where the powerhouse is adjacent to the spillway often indicate a strong lateral current directed toward the spillway. The presence of Bradford and Cascade Islands at Bonneville eliminates the potential entrainment of powerhouse flow into aerated spillway releases.

The clearest example of the influence of the entrainment of powerhouse flow on TDG exchange was documented during the near-field TDG exchange study at Little Goose. The study at Little Goose was conducted during February 1998 when the ambient TDG saturation in the Snake River ranged from 101 to 103 percent. The test plan called for adult and juvenile fish passage spill of up to 60 kcfs with the powerhouse discharging either 60 kcfs or not operating. The cross-sectional average TDG pressure in the Snake River below Little Goose was determined from seven separate sampling stations located across the river from the tailwater FMS. The project operations and resultant TDG saturation are summarized in Figure 6 where the observations from the forebay and tailwater fixed monitoring stations are shown as LGS and LGSW, respectively. The cross-sectional average TDG saturation at the tailwater FMS is labeled $T5_{avg}$, and the flow-weighted average TDG saturation assuming no entrainment of powerhouse flow is labeled FWA (flow-weighted average).

The TDG saturation estimated by assuming that powerhouse releases were available to dilute spillway flows during this test (FWA) were significantly less than estimates derived from averaging information from the seven sampling stations at the tailwater fixed monitoring station ($T5_{avg}$). This study demonstrated that nearly all of the powerhouse flows from Little Goose were entrained and acquired TDG pressures similar to those in spillway flows during this study.

The circulation patterns below the dam during the test clearly supported the TDG data indicating high rates of entrainment of powerhouse flows into the stilling basin.

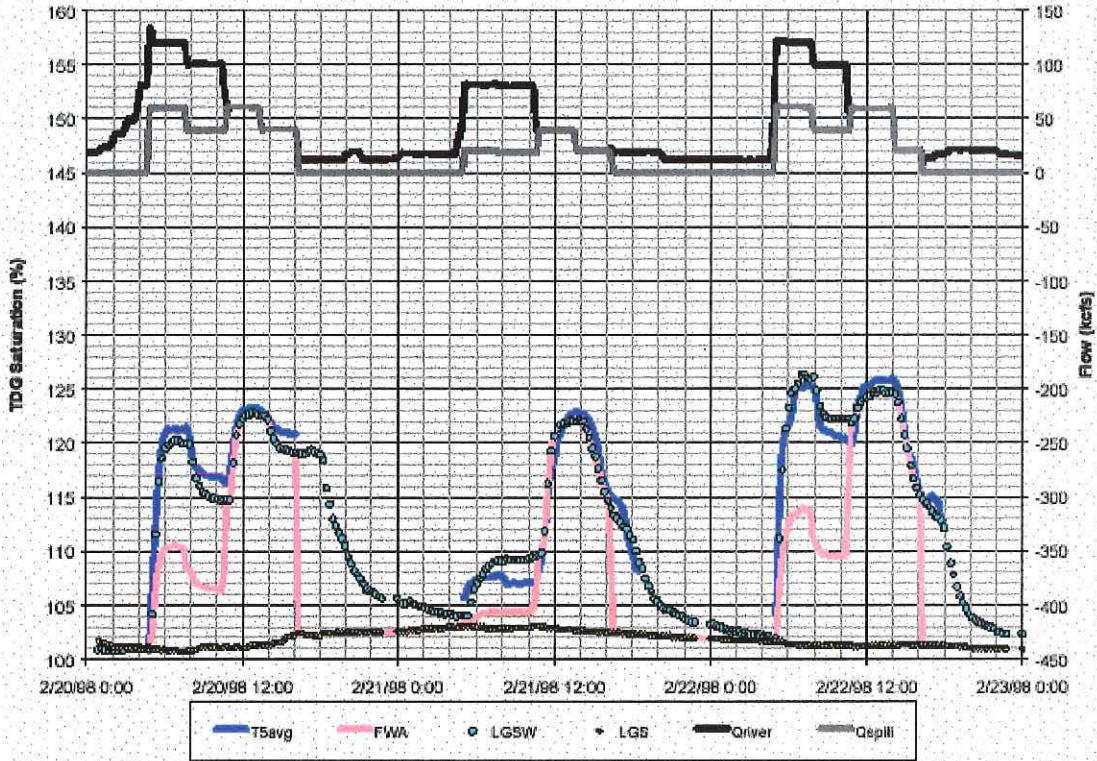


Figure 6: Project Operation and TDG Saturation at Little Goose Dam, February 1998 ($T5_{avg}$ Average TDG Level at Tailwater FMS, LGS- Forebay FMS, LGSW- Tailwater FMS, FWA- Flow Weighted Average Assuming No Entrainment)

The entrainment of powerhouse flow was modeled as a simple linear function of spillway discharge. The relationship shown in Equation 10 was used to estimate the entrainment discharge for each project. The coefficients C_1 and C_2 are project-specific constants. The entrainment of powerhouse flow was assumed to be exposed to the same conditions that spillway releases encounter and, hence, achieve the same TDG pressures.

$$Q_e = C_1 Q_{sp} + C_2 \quad \text{Equation 10}$$

The loading capacity of the river segments identified for this TMDL are the water quality standard, namely 110 percent of saturation relative to atmospheric pressure.

Analysis of TDG Loading Capacity

Linkage of TDG Loading to the Criteria

As discussed above, the fundamental process that elevates TDG is gas transfer between the air and water at the boundary of entrained bubbles, driven by differential gas pressures. For any given spill volume and tailwater depth, the excess pressure over ambient barometric pressure, ΔP , can be predicted. The mass loading of air that is associated with any given ΔP will depend on water temperature. However, this mass loading is of less importance than ΔP , since it is ΔP that drives whether gas bubble trauma will occur. For these reasons, using excess pressure rather than mass loading to express loading capacity is appropriate for this TMDL, and is supported by the Clean Water Act's allowance for the use of "other appropriate measures" in the development of TMDLs.

To determine the TMDL loading capacity, ΔP can be directly related to the TDG water quality criteria, as describe in Equation 6:

$$S_{idg} = \frac{(P_{atm} + \Delta P)}{P_{atm}} * 100$$

If S_{idg} is set at the criterion of 110 percent saturation, the equation can be rearranged to establish a ΔP loading capacity (ΔP_{lc}):

$$\Delta P_{lc} = P_{atm} * 0.1$$

To choose a critical barometric pressure P_{atm} for establishing a loading capacity, the 95th percentile low pressure was determined. This pressure varies from 743 mm Hg at the McNary forebay to 754 mm Hg in the Bonneville tailwater. Therefore, the loading capacity for the Lower Columbia River is set to ΔP of 75 mm Hg.

Identification of Sources

There are four sources of TDG within the geographic scope of this TMDL:

1. McNary Dam
2. John Day Dam
3. The Dalles Dam
4. Bonneville Dam

No other significant sources of elevated TDG exist in the Lower Columbia River, other than increases in TDG caused by natural changes in barometric pressure, temperature, or biological activity. Tributary sources of TDG are negligible.

Water entering the portion of Lower Columbia River covered by this TMDL at times exceeds the TDG standard at the upstream boundary. Future TMDLs for the Mid-Columbia and Lower Snake rivers will address upstream sources and compliance with a load allocation at the upstream boundary of this TMDL. This TMDL addresses those loads of TDG introduced by dams on the Lower Columbia River that fall within both Oregon and Washington below the confluence of the Snake and Columbia rivers.

The discussion of gas generation at each dam provided in this section is based on the U.S. Army Corps of Engineers analysis reported in the DGAS report (USACE, 2001a) and other sources. The information is provided to illustrate processes at the dams with their configuration at the time of the studies described. As structural modifications are made at the dams, the specific gas generation equations will change.

Analysis of Current Conditions

Data Sources

TDG data were available on many of the projects from several sources: the fixed monitoring station (FMS) system; near field (tailrace) and spillway performance tests; and in-pool transport and dispersion tests. Operational data were obtained from each project detailing the individual spillway and turbine discharge on an interval ranging from five minutes to one hour. These sources of data are discussed below. With these data sources, the most appropriate analysis was selected for each project. Individual mathematical relationships were developed on a project-by-project basis.

Data Quality

TDG data collected in the Columbia River has undergone rigorous evaluation for data quality. For the TDG controlled spill studies, Wilhelms, Carroll, and Schneider (1997) reported on a workshop attended by a team of experts who evaluated the quality of data collections and recommended area for improvement. The workshop built on previous data quality evaluations.

The U.S. Army Corps of Engineers and the U.S. Geological Survey collect FMS data jointly following rigorous quality control. Basic data quality procedures are provided in the annual Plan of Action (e.g., USACE, 2001b). Detailed methods and quality assurance data are reported by the U.S. Geological Survey (e.g., Tanner and Johnston, 2001). The Corps annual water quality reports provide detailed data quality analysis (e.g., USACE, 2000). The TDG data quality target for the FMS stations is a precision of no greater than one percent for paired readings.

In general, the data quality assurance/quality control procedures for the source information used in this TMDL meet or exceed the standards applied by the Washington State Department of Ecology and the Oregon Department of Environmental Quality for their own data collection and analysis for TMDL development.

The Fixed Monitoring Station (FMS) Data

The TDG data from the FMSs consisted of remotely monitored TDG pressure, dissolved oxygen, water temperature, and atmospheric pressure from a fixed location in the forebay and tailwater of each project. Data from the FMSs provide a long-term hourly record of TDG throughout the season, capturing detailed temporal and extreme events. However, the FMSs provide only limited spatial resolution of TDG distribution. In some cases, the TDG observed in the tailwater at the FMS location was not representative of average spillway conditions and misrepresented the TDG loading at a dam.

Spillway Performance Tests and Near-Field Studies

Spillway performance tests and near-field tailwater studies were conducted at several projects to define the relationship between spill operation and dissolved gas production more clearly. Water temperature, TDG, and dissolved oxygen were monitored in the immediate tailrace region, just downstream of the project stilling basin. These observations provided a means to relate the local TDG saturation to spill operations directly, and to define gas transfer in different regions of the tailrace area. Manual sampling of TDG pressures in spillway discharges from several bays was conducted downstream of the aerated flow regime at Lower Granite Lock and Dam, Little Goose Lock and Dam, Ice Harbor, and The Dalles (Wilhelms 1995); and John Day, Lower Monumental Lock and Dam, and Bonneville Lock and Dam (Wilhelms, 1996).

In these studies, automated sampling of TDG pressures in spillway discharges during uniform and standard spill patterns was conducted with an array of instruments in the stilling basin and tailwater channel of all the projects in the study area with the exception of Lower Granite. Automated sampling of TDG levels provide the opportunity to assess three-dimensional characteristics of the exchange of TDG immediately downstream of the stilling basin on a sampling interval ranging from five to 15 minutes. The integration of the distribution of flow and TDG pressure can yield estimates of the total mass loading associated with a given event. These tests were of short duration, generally lasting only several days and, therefore, pertain to the limited range of operations scheduled during testing.

In-Pool Transport and Dispersion Studies

During the 1996 spill season, in-pool transport and dispersion investigations were conducted to define the lateral mixing characteristics between hydropower and spillway releases. Water temperature, TDG levels, and dissolved oxygen were measured at several lateral transects located over an entire pool length. These studies focused on the lateral and longitudinal distribution of TDG throughout a pool during a period lasting from a few days to a week. In-pool transport and mixing studies were conducted below Little Goose, Lower Monumental, Ice Harbor, John Day, The Dalles, and Bonneville during the 1996 spill season. In most cases, a lateral transect of TDG instruments was located below the dam to establish the level of TDG entering the pool, with additional transects throughout the pool. These studies provided observations of the TDG saturation in project releases as they moved throughout an impoundment. However, only a limited range of operations was possible during the relatively short duration of these tests.

Operational Data

Operational data were obtained from each project detailing the spillway and powerhouse unit discharge on time intervals ranging from five minutes to one hour. The average hourly total spillway and generation releases, and forebay and tailwater pool elevations were summarized in the DGAS database. The tailwater pool gauge was generally located below the powerhouse of each dam. The tailwater elevation at the powerhouse was found to be within one foot of the water elevation downstream of the stilling basin in most instances.

Data Interpretation

The objective of this analysis was to develop mathematical relationships between observed TDG and operational parameters such as discharge, spill pattern, and tailwater channel depth. These relationships were derived with observations from the FMSs and spillway performance tests. However, before the analysis could be conducted, the monitored data had to be evaluated to determine its reliability for this kind of analysis. For example, the monitored TDG data from the FMSs provide a basis for defining the effects of spillway operation on dissolved gas levels in the river below a dam, but the following limitations should be noted:

- The FMSs sample water near-shore, which may not reflect average TDG levels of the spill. The monitor sites were, in general, located on the spillway side of the river to measure the effects of spillway operation. However, with a non-uniform spill distribution and geometry across the gates of the spillway, the FMS may be more representative of the spillbays closest to the shore. Outside spillbays, without flow deflectors can create elevated TDG levels downstream from these bays compared to adjacent deflected bays. A spill pattern that dictates higher unit discharges on these outside bays can further elevate the TDG levels downstream of these bays relative to the releases originating from the deflected interior bays.
- Depending upon the lateral mixing characteristics, the FMS downstream of a project may be measuring spillway releases that have been diluted with hydropower releases. The tailwater

FMSs below The Dalles and Bonneville are located in regions where substantial mixing has occurred between generation and spillway discharges. Under most conditions, the TDG saturation of generation releases is less than the TDG level associated with spillway releases. The TDG at the tailwater FMS will be a function of the discharge and level of TDG from both generation and spillway releases. Obviously, if there is no spill, then the monitored TDG levels will reflect the TDG saturation released by the hydropower facility.

- Passage of generation flows through a power plant does not significantly change the TDG levels associated with this water. However, there can be a significant near-field entrainment of powerhouse flow by spillway releases at some projects, especially if flow deflectors are present. Observed data suggest that, under these conditions, some portion of the powerhouse discharges will be subjected to the same processes that cause absorption of TDG by spillway releases. In these cases, the TDG levels measured immediately downstream of a spillway will be associated with the spillway release plus some component of the powerhouse discharge.

The observations of tailwater TDG pressure need to be paired up with project operations to conduct an evaluation of the data. A set of filters or criteria were established to select correctly-paired data for inclusion in this analysis. The travel time for project releases from the dam to the tailwater FMS was typically less than two hours and steady-state tailwater stage conditions were usually reached within this time period. Thus, the data records were filtered to include data pairs corresponding with constant operations of duration greater than two hours to exclude data corresponding with unsteady flow conditions. This filtering criterion eliminated data associated with changing operations and retained only a single observation for constant operating conditions equal to three hours in duration.

- *Manual and Automated Inspections for Obviously Inaccurate Observations.* An automated search for values above or below expected extremes identified potential erroneous and inaccurate data in the database. These data were inspected and, if appropriate, excised from the database.
- *Comparison of Measurements from Forebay and Tailwater Instruments During Non-Spill Periods.* During the non-spill periods, downstream measurements should approach the forebay concentration when only the hydropower project is releasing water. Inspection of the data was conducted to identify errors when this condition was not met.
- *Comparison of Measurements from Redundant Tailwater TDG Monitors, if Available.* TDG tailwater data was rejected when measurements of two instruments at the same site varied by more than three percent saturation.

McNary Dam

The TDG Exchange

A TDG exchange field investigation was conducted at McNary during February 11-13, 1996, with the study summarized in Wilhelms and Schneider (1997a). The study consisted of sampling

TDG pressures below the spillway during spillway discharges ranging from 50 to 285 kcfs. Two different spill patterns were investigated during this study, standard and uniform.

The study findings indicated that the TDG production was directly related to the unit spillway discharge. The TDG saturation ranged from 108 to 135 percent during the study for unit spillway discharges ranging from two to 17 kcfs/bay. The influence of the operation of spillway bays without flow deflectors was found to increase the TDG exchange for comparable unit spill discharges. The relatively small total river flows and associated range in tailwater elevations resulted in test spill conditions corresponding with tailwater elevations ranging from 265.5 to 269.0 feet above mean sea level (fmsl).

Regression

The TDG production during spillway releases from McNary, as defined by $P = P_{tw} - P_{bar}$, was found to be a power function of tailwater depth and the specific discharge as shown in Equation 11. The regression equation was based on data collected during the 1997 spill season. The data filtering resulted in 172 observations. The delta TDG pressure ranged from 81.9 mm Hg to a maximum value of 307.6 mm Hg as listed in Table 4. The range in unit spillway discharge ranged from 2.0 kcfs/bay to 21.9 kcfs/bay and the tailwater depth ranged from 30.8 to 40.5 feet.

$$\Delta P = D_{tw}^{0.647} q_s^{0.969} + 82.14 \quad \text{Equation 11}$$

Where:

- ΔP = $P_{tw} - P_{bar}$
- P_{tw} = TDG pressure at the tailwater FMS (mm Hg)
- q_s = Flow-weighted unit spillway bay discharge (kcfs/bay)
- D_{tw} = Tailrace channel depth (feet) ($E_{tw} - E_{ch}$)
- E_{tw} = Elevation of the tailwater (ft)
- E_{ch} = Average elevation of the tailrace channel (320 fmsl)
- P_{bar} = Barometric pressure at the tailwater FMS (mm Hg)

Table 4: Statistical Summary of Regression Variables for McNary Dam

	Delta Pressure ΔP (mm/Hg)	Unit Spillway Discharge q_s (kcfs/bay)	Tailwater Depth D_{tw} (ft)
Number	173	173	173
Minimum	81.9	2.0	30.8
Maximum	307.6	21.9	40.5
Average	191.6	11.7	35.0
Standard Deviation	53.0	5.4	2.2

Source: U.S. Army Corps of Engineers DGAS Study, Appendix G, p. G-29

The unit spillway discharge was plotted against the observed and calculated tailwater TDG pressure difference in Figure 7.

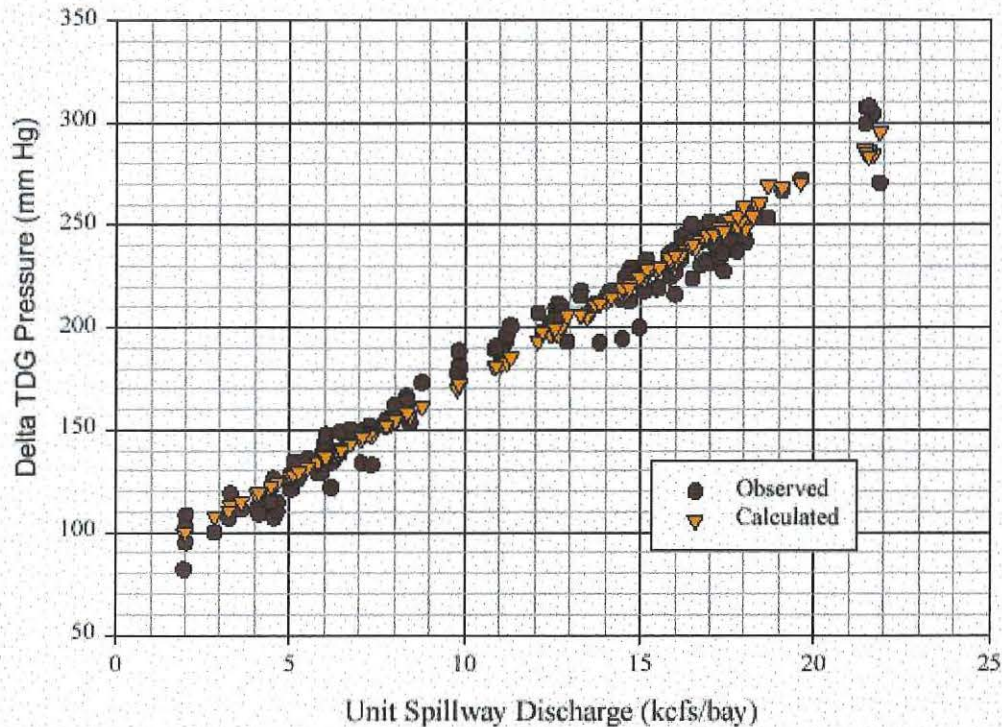


Figure 7: Unit Spillway Discharge versus TDG Pressure Above Barometric Pressure at McNary Dam, 1997

The near linear relationship between the TDG pressure and unit discharge is evident in this figure as the TDG pressure continues to increase as the specific unit discharge becomes large. Much of the variability in the TDG pressure for a constant unit discharge can be accounted for by the variation in the tailrace channel depth. All of the coefficients determined by the nonlinear regression analysis were significant to at least a 99 percent confidence interval as shown in Table 5. This formulation explained much of the variability in the data with an r^2 of 0.97 and a standard error of 9.25 mm Hg.

Table 5: Statistical Summary of Nonlinear Regression at McNary 1997 Spill Season

$\Delta P = D_{tw}^{c1} q_s^{c2} + c3$ Number of Observations n=173 $r^2 = 0.97$ Std Error = 9.26 mm Hg				
Coefficient	Estimate from Regression	Standard Error	t-statistic	Probability
C_1	0.647	0.0693	12.71	<0.0001
C_2	0.969	0.0762	9.35	<0.0001
C_3	82.14	5.89	14.08	<0.0001

Source: U.S. Army Corps of Engineers DGAS Study, Appendix G, p. G-29

A review of the regression coefficients in Equation 11 reveals that the TDG exchange is relatively insensitive to the variation in the depth of flow below McNary. The response surface for TDG pressure above atmospheric pressure as a function of both unit spillway discharge and tailwater stage is shown in Figure 8.

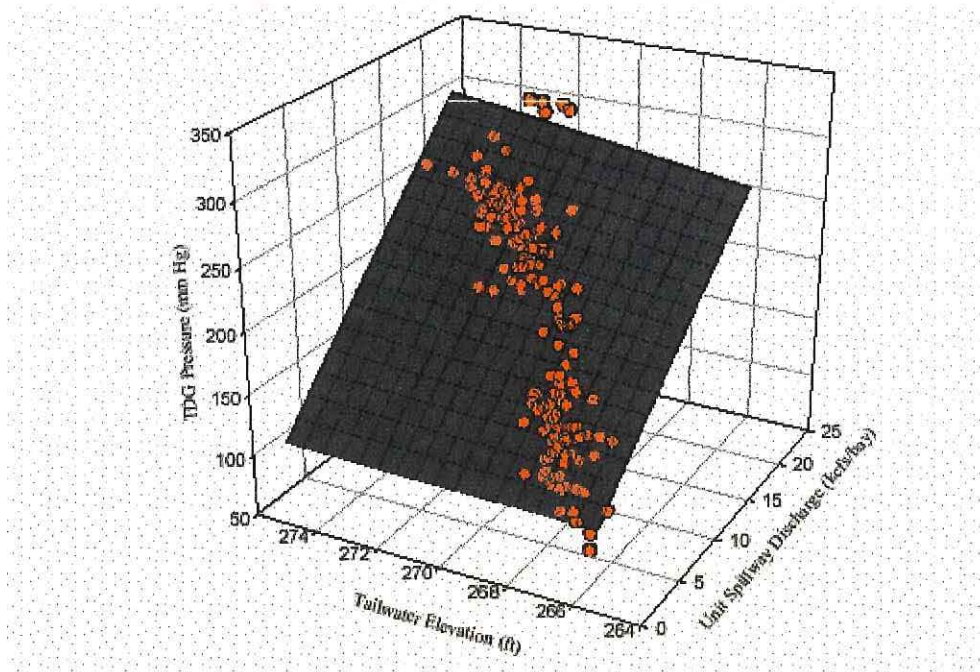


Figure 8: Unit Spillway Discharge, Tailwater Elevation, and TDG Pressure Above Barometric Pressure at McNary Dam, 1997

The response function as defined in Equation 11 was used to create a hindcast of the TDG production observed during the 1997 spill season. The hourly project operation and TDG saturation at the McNary FMSs for June 1998 are shown in Figure 9 along with the estimates of TDG saturation based on Equation 3.

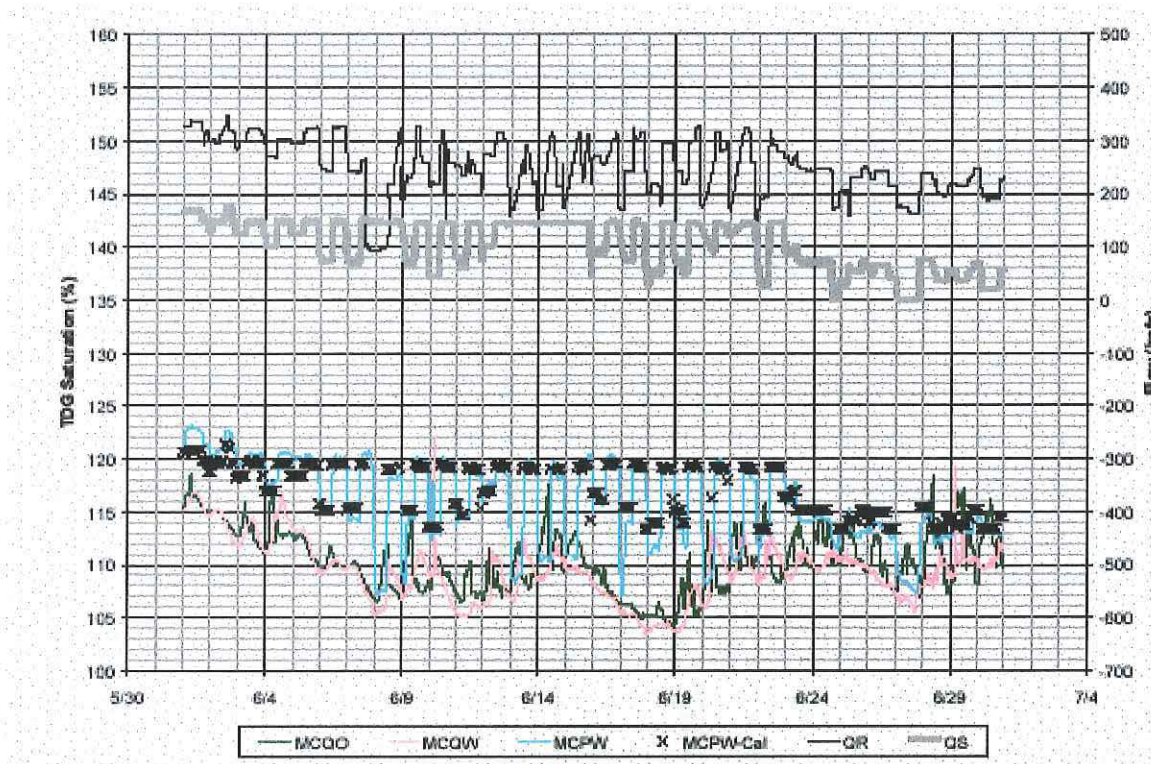


Figure 9: Observed and Estimated TDG Saturation at the Tailwater Fixed Monitoring Station at McNary Dam, June 1998. (MCQO/ MCQW= Observed Forebay TDG, MCPW= Observed Tailwater TDG, MCPW- cal= Calculated Tailwater TDG, QR= Hourly Total River Flow, QS= Hourly Spillway Flow)

In general, the estimated TDG saturation was generally within one percentage point of the observed tailwater TDG saturation. The maximum daily spillway discharge remained constant during much of June with little variation in the production of TDG saturation. The forebay TDG level however, varied. The TDG performance of the spillway bays without flow deflectors was needed to derive the TDG exchange from the exiting spillway. Spillway bays 1, 2, 21, and 22 do not have flow deflectors and are typically operated by raising only the upper leaf of the split leaf vertical gates. This operation results in a jet that plunges into the stilling basin as a fully aerated nap. It should be noted that bay 22 is not typically operated due to absence of a dedicated gate hoist.

The results from the near-field TDG exchange test were used to estimate the TDG exchange characteristics of standard spillway bays. The TDG production resulting from uniform spill

flows from bays 3 through 20 (bays with flow deflectors) was subtracted from the TDG response for the standard spill pattern. The difference in the delta TDG pressure generated between these curves was divided by the discharge from the spillway bays 1, 2, and 21 to arrive at the response relation listed in Equation 12. A linear relationship between the unit spillway discharge and delta TDG pressure was estimated for these end bays at McNary. The non-deflected bays generated TDG saturation about ten percent greater on average than deflected bays.

$$\Delta P = 11.35 q_s + 143.1$$

Equation 12

Powerhouse Entrainment

Estimates of the entrainment of powerhouse flows into spillway discharge were not available from this study because of the limited amount of powerhouse discharge and the absence of flow distribution information. Since direct determination of the entrainment of powerhouse flows into the highly aerated conditions below McNary were not practical, it was assumed for this study that the entrainment characteristics of McNary were similar to John Day. The entrainment of powerhouse flows was estimated to average 35 kcfs at McNary and to be independent of the total spillway discharge.

John Day Dam

The TDG Exchange

The installation of spillway flow deflectors at John Day was completed during the winter of 1997-98. Deflectors were installed in spillway bays two through 19 at elevation 148 fmsl. The flow deflectors significantly changed the TDG exchange properties of releases from John Day. A detailed near-field study of TDG exchange below John Day was conducted during February 10-12, 1998, as described by Schneider and Wilhelms (1999a). The study consisted of sampling TDG pressures below the stilling basin during spillway discharges ranging from 36 to 246 kcfs. Several different spill patterns were investigated during this study: uniform bays two through 19, uniform bays one through 20, provisional standard spill pattern, and uniform bays ten through 19.

The study findings indicated that the TDG production was directly related to the unit spillway discharge. The TDG saturation was found to be an exponential function of unit spillway discharge with 115 percent saturation associated with a unit spillway discharge of four kcfs/bay and 120 percent saturation generated for a unit spillway discharge of nine kcfs/bay for the uniform spill pattern. The main limitation of this TDG exchange study was the small range in tailwater elevations (158.4 to 161.3 fmsl).

The influence of standard operating conditions on TDG exchange was further investigated through analyzing the TDG exchange indicated by the FMS during the 1998-spill season. These conditions involved the newly adopted spill pattern, a wider range in tailwater elevation, and both fish passage and involuntary spill discharges. The observed TDG data at the John Day tailwater FMS were used to generate a description of TDG exchange. The filtering of these data

resulted in a total of 51 observations as summarized in Table 6. The observed delta pressure ranged from 108 mm Hg to 184.0 mm Hg for these 51 events. The unit spillway discharge was found to range from 4.3 to 9.4 kcfs/bay and the tailwater depth was found to range from 33.6 to 42.4 feet.

Table 6: Statistical Summary of Regression Variables

	Delta Pressure ΔP (mm/Hg)	Unit Spillway Discharge q_s (kcfs/bay)	Tailwater Depth D_{tw} (ft)
Number	52	52	52
Minimum	108.0	4.3	33.8
Maximum	184.0	9.4	42.4
Average	152.7	7.1	38.7
Standard Deviation	16.7	1.2	1.9

Source: U.S. Army Corps of Engineers DGAS Study, Appendix G, p. G-31

The functional relationship between TDG production and project operation at John Day was similar to those relationships derived for upper Snake River projects. The delta TDG pressure, as defined by $\Delta P = P_{tw} - P_{bar}$, was found to be proportional to the product of tailwater depth and an exponential function of the specific discharge as shown in Equation 13. Both of the coefficients determined by the nonlinear regression analysis were significant to at least a 99 percent confidence interval as shown in Table 7. This formulation explained much of the variability in the data with an r^2 of 0.84 and a standard error of 6.8 mm Hg.

$$\Delta P = 4.969 D_{tw} (1 - e^{-0.2278 q_s}) \quad \text{Equation 13}$$

Where:

- ΔP = $P_{tw} - P_{bar}$
- P_{tw} = TDG pressure at the tailwater FMS (mm Hg)
- q_s = Unit spillway bay discharge (kcfs/bay)
- D_{tw} = Tailrace channel depth (feet) (Etw-Ech)
- E_{tw} = Elevation of the tailwater (fmsl)
- E_{ch} = Average elevation of the tailrace channel (125 fmsl)
- P_{bar} = Barometric pressure at the tailwater FMS (mm Hg)

Table 7: Statistical Summary of Nonlinear Regression at John Day 1998 Spill Season
(Bays 2 Through 19 With Flow Deflectors)

$\Delta P_{tw} = C_1 * D_{tw} * (1 - \exp(C_2 * q_s))$				
Number of observations n=51 $r^2 = 0.84$ Std. Error=6.78 mm Hg				
Coefficient	Estimate from Regression	Standard Error	t-statistic	Probability
C_1	4.969	0.192	25.908	<0.0001
C_2	-0.2278	0.0221	10.3069	<0.0001

Source: U.S. Army Corps of Engineers DGAS Study, Appendix G, p. G-32

The unit spillway discharge was plotted against the observed and calculated tailwater TDG pressure above the local barometric pressure as shown in Figure 10.

The exponential relationship between the TDG pressure and specific discharge is not as clearly defined at John Day as at other projects with this functional form. Much of the variability in the TDG pressure for a constant unit discharge can be accounted for by the variation in the tailrace channel depth. Equation 13 can be solved directly for the unit specific discharge assuming a delta pressure of 150 mm Hg (120 percent saturation) and a tailwater depth of 35 feet. The resultant unit spillway discharge of about nine kcfs/bay is the solution to this equation. This unit spillway discharge was similar to the spillway capacity determined during the near-field TDG exchange study.

The three-dimensional response surface for Equation 13 is shown in Figure 11 along with the observed data.

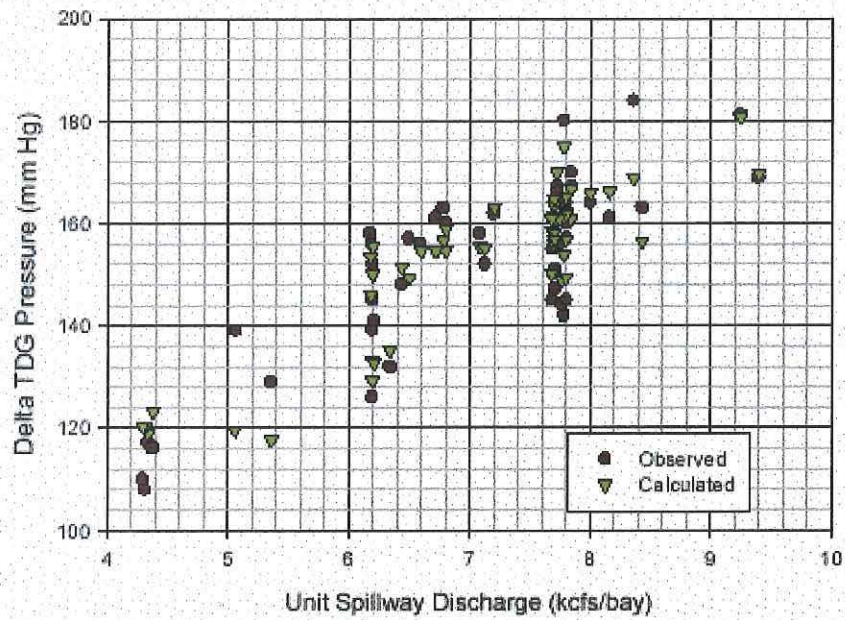


Figure 10: Unit Spillway Discharge versus TDG Pressure Above Barometric Pressure at John Day Dam, 1998

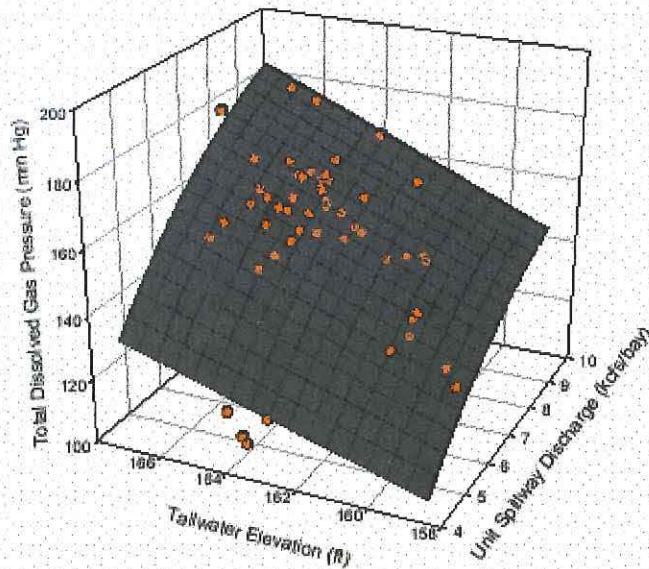


Figure 11: Unit Spillway Discharge, Tailwater Elevation, and TDG Pressure Above Barometric Pressure at John Day Dam, 1998

The TDG pressure increases for a constant unit spillway discharge as the tailrace channel depth increases. The influence of the tailwater depth is significant as evidenced by the slope in the response surface for a constant unit discharge. The upper limit in delta TDG pressure will continue to increase with increasing tailwater elevation. The TDG response during fish passage spill conditions will be different than a comparable spill discharge at a much higher total river flow.

The tailwater TDG saturation as approximated by Equation 13 was used to create a hindcast of the TDG production observed during the 1998 spill season below John Day. The hourly project operation and TDG saturation at the John Day tailwater FMSs (JHAW) for the months of May and June 1998 are shown in Figure 12 along with estimates of the tailwater TDG saturation (JHAW-est).

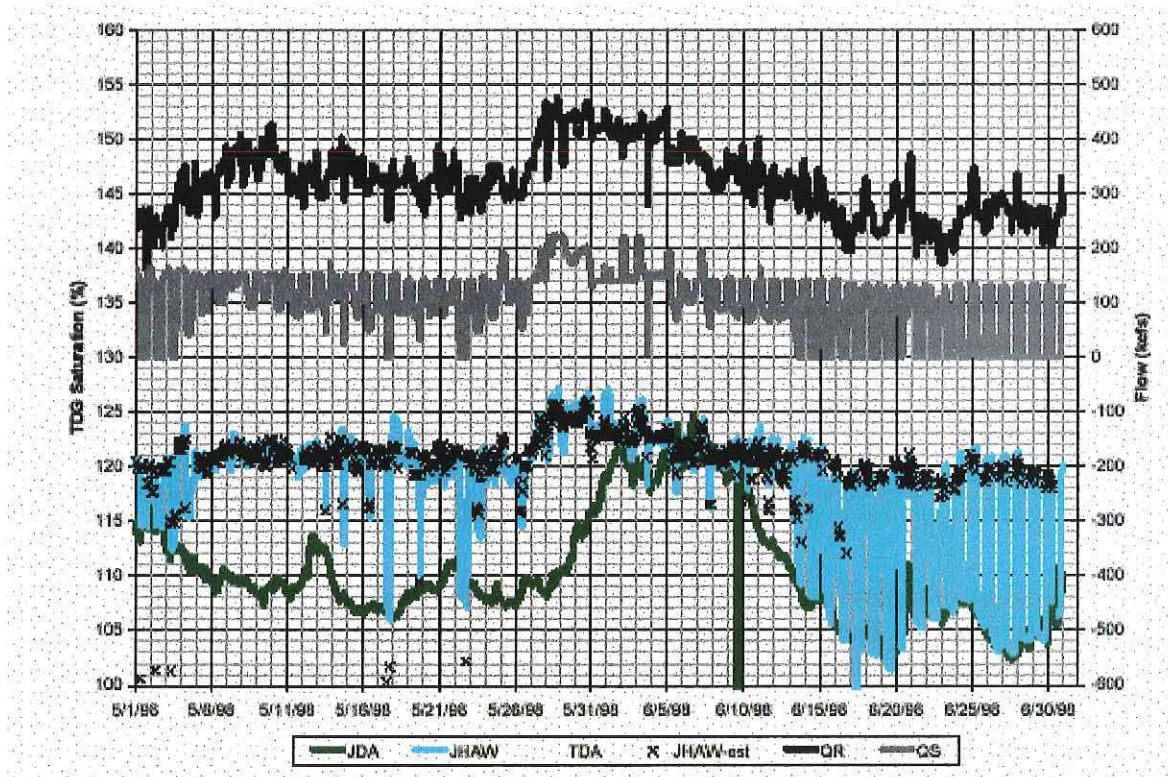


Figure 12: Observed and Estimated TDG Saturation at the Tailwater Fixed Monitoring Station at John Day Dam, May- June 1998. (JDA= Observed Forebay TDG, JHAW= Observed Tailwater TDG, JHAW- est =Calculated Tailwater TDG, QR= Hourly Total River Flow, QS= Hourly Spillway Flow)

In general, the estimated average TDG saturation was generally within seven mm Hg of the observed tailwater TDG pressure. The operating conditions during May 1998 depict both fish passage and involuntary spill conditions. The spill discharges were as high as 230 kcs for total river flows over 400 kcs, resulting in tailwater TDG saturation of about 126 percent. The

nighttime-only spill operations during the last two weeks of June imply fish passage spill conditions. Note the range in TDG response for the constant nighttime spill operations during this period. The nighttime spill on June 21 corresponded with elevated total river flows and high tailwater conditions resulted in TDG saturation exceeding 121 percent. A comparable spill two days later during much lower total river flow and tailwater stage conditions resulted in TDG saturations of only 119 percent.

Regression

John Day has two spillway bays without flow deflectors. The TDG response of these two bays were estimated using tailwater TDG pressures observed prior to the installation of the 18 flow deflectors during the 1996 and 1997 spill seasons. A total of 1,137 hourly observations were pooled from the 1996 and 1997 spill seasons. The presence of two flow deflectors located in bays 18 and 19 during the 1997 spill season were not thought to influence the TDG response at the tailwater FMS below John Day. The delta pressure for these events ranged from 84 to 324 mm Hg as shown in Table 8. The unit spillway discharge ranged from 1.8 to 15.3 kcfs/bay and the tailwater depth ranged from 35.6 to 46.7 feet during this sample period.

Table 8: Statistical Summary of Regression Variables

	Delta Pressure ΔP (mm Hg)	Unit Spillway Discharge q_s (kcfs/bay)	Tailwater Depth D_{tw} (ft)
Number	1137	1137	1137
Minimum	84.0	1.8	35.6
Maximum	324.0	15.3	48.7
Average	223.0	5.8	41.1
Standard Deviation	64.6	3.0	2.3

Source: U.S. Army Corps of Engineers DGAS Study, Appendix G, p. G-33

The delta pressure of a standard spillway bay at John Day was determined to be a function of the unit spillway discharge. The functional form of this relationship is shown in Equation 14 where a threshold delta pressure of 315.3 mm Hg is approached for large unit spillway discharges as shown in Figure 13.

The maximum TDG saturation generated by this relationship approaches 141 percent for a barometric pressure of 760 mm Hg. All of the coefficients determined by the nonlinear regression analysis were significant to at least a 99 percent confidence interval as shown in Table 9. This formulation explained much of the variability in the data with an r^2 of 0.94 and a standard error of 15.9 mm Hg. The TDG exchange for a known spill pattern using bays with and without flow deflectors can be estimated by using both Equations 13 and 14. The average TDG pressure associated with a spill discharge would be determined by calculating a flow-weighted average of the individual spillway bay responses.

$$\Delta P = 315.29 - 519.09e^{-0.365q_s} \quad \text{Equation 14}$$

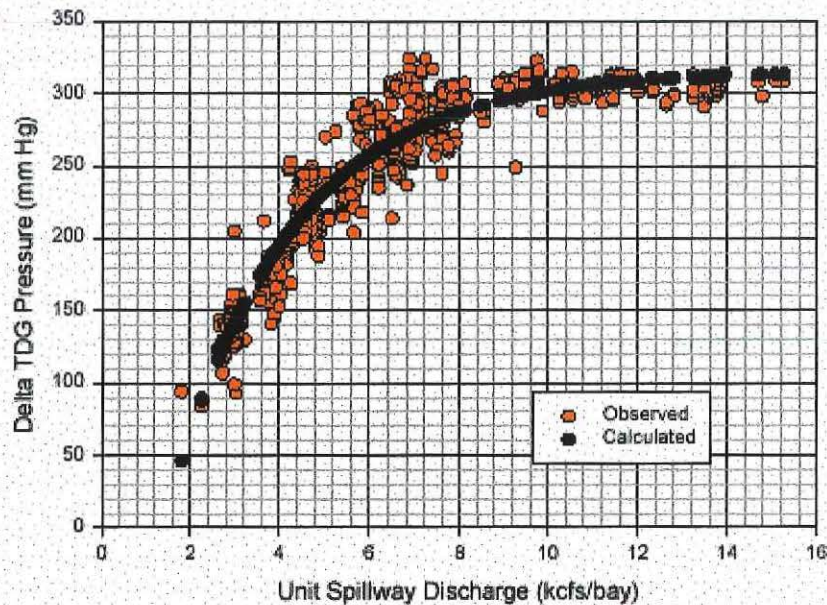


Figure 13: Observed and Calculated Delta TDG pressure at John Day Dam (Standard Spillway – no Deflector)

Table 9: Statistical Summary of Nonlinear Regression at John Day 1996-1997 Spill Season

$\Delta P_{tw} = C_1 - C_2 * (\exp(C_3 * q_s))$ Number of observations = 1137 $r^2 = 0.94$ Std. Error = 15.95 mm Hg				
Coefficient	Estimate from Regression	Standard Error	t-statistic	Probability
C_1	315.29	1.647	191.48	<0.0001
C_2	-519.09	10.3867	-49.975	<0.0001
C_3	-0.3649	0.0084	-43.38	<0.0001

Source: U.S. Army Corps of Engineers DGAS Study, Appendix G, p. G-34

Powerhouse Entrainment

The entrainment of powerhouse flows into the highly aerated flow conditions below John Day was estimated from data collected during the 1998 spillway TDG exchange study (Schneider and Wilhelms, 1999a). The average TDG pressure of project and spillway releases was used with a simple mass balance statement of project flows to provide estimates of the effective spillway

discharge and entrainment of powerhouse flows. The estimates of the entrainment of powerhouse flows were found to range from five to 60 kcfs average and average about 35 kcfs. The powerhouse entrainment discharge was not found to vary as a function of the total spillway discharge.

The Dalles Dam

The TDG Exchange

A TDG exchange field investigation was conducted below The Dalles during August 28-29, 1996, with the study summarized in Schneider and Wilhelms (1996a). The study consisted of sampling TDG pressures below the spillway during spillway discharges ranging from 50 to 200 kcfs. Three different spill patterns were investigated during this study: adult, juvenile, and uniform spill patterns.

The study findings indicated that the TDG production was weakly related to the unit spillway discharge. The TDG saturation ranged from 119 to 124 percent during the study for unit spillway discharges ranging from two to 14 kcfs/bay. The influence of the spill pattern was found to be accounted for by representing the total spillway discharge as defined by unit spillway bay discharge. The main limitation of this TDG exchange study was the small range in tailwater elevation (75.7 to 78.3 fmsl).

Regression

The high river flows and spillway discharges during 1997 generally fell outside of the range of conditions scheduled during the 1996 spillway performance test. The application of the TDG production relationship determined during the 1996 near-field study did not replicate TDG conditions observed below The Dalles during the 1997 spill season.

The observed TDG data at The Dalles from the forebay and tailwater FMS were used to generate an alternative description of TDG exchange. The TDG pressures observed at the forebay FMS were assumed to represent the conditions discharged from the powerhouse. The TDG pressures observed at the tailwater FMS were assumed to reflect the average TDG pressures in the Columbia River. The TDG properties of spillway discharge were estimated by performing a simple mass balance of project releases. The hourly data were filtered to retain only those data having constant project operations for a six-hour duration. This criterion was selected to allow steady-state conditions to develop at the tailwater FMS located three miles downstream of the project. This criterion also allowed the inclusion of a single datum for each extended event.

This data filtering resulted in a total of 87 observations as summarized in Table 10. The estimated delta pressure ranged from 143.3 mm Hg to 203.6 mm Hg for these 87 events. The unit spillway discharge was found to range from 4.3 to 19.0 kcfs/bay and the tailwater depth was found to range from 8.3 to 23.3 feet.

Table 10: Statistical Summary of Regression Variables

	Delta Pressure ΔP (mm Hg)	Unit Spillway Discharge q_s (kcfs/bay)	Tailwater Depth D_{tw} (ft)
Number	87	87	87
Minimum	143.3	4.3	8.3
Maximum	206.6	19.0	23.3
Average	178.4	9.6	14.5
Standard Deviation	14.1	3.6	3.6

Source: U.S. Army Corps of Engineers DGAS Study, Appendix G, p. G-35

The spillway releases from The Dalles, as defined by $\Delta P = P_{tw} - P_{bar}$, was found to be proportional to the product of tailwater depth and the specific discharge as shown in Equation 15. The regression equation was based on data collected during the 1997 spill season. The data filtering resulted in a total of 87 independent observations. The unit spillway discharge was plotted against the estimated and calculated tailwater delta TDG pressure in Figure 14.

The form of the relationship shown in Equation 15 implies the TDG exchange for small spillway discharge will exceed 120 percent as was observed during the 1996 near-field investigation. All of the coefficients determined by the nonlinear regression analysis were significant to at least a 99 percent confidence interval as shown in Table 11. This formulation explained much of the variability in the estimated dependent variable with an r^2 of 0.735 and a standard error of 7.3 mm Hg.

$$\Delta P = D_{tw}^{1.02} q_s^{0.33} + 145.9 \quad \text{Equation 15}$$

The dual dependency of the delta pressure change on tailwater depth and unit spillway bay discharge is shown in Figure 15.

Table 11: Statistical Summary of Nonlinear Regression at The Dalles 1997 Spill Season

$\Delta P_{tw} = D_{tw}^{C_1} q_s^{C_2} + C_3$ Number of observations = 87 $r^2 = 0.735$ Std. Error = 7.34 mm Hg				
Coefficient	Estimate from Regression	Standard Error	t-statistic	Probability
C_1	1.02	0.12	2.69	<0.0086
C_2	0.33	0.12	8.72	<0.0001
C_3	145.9	2.21	66.11	<0.0001

Source: U.S. Army Corps of Engineers DGAS Study, Appendix G, p. G-36

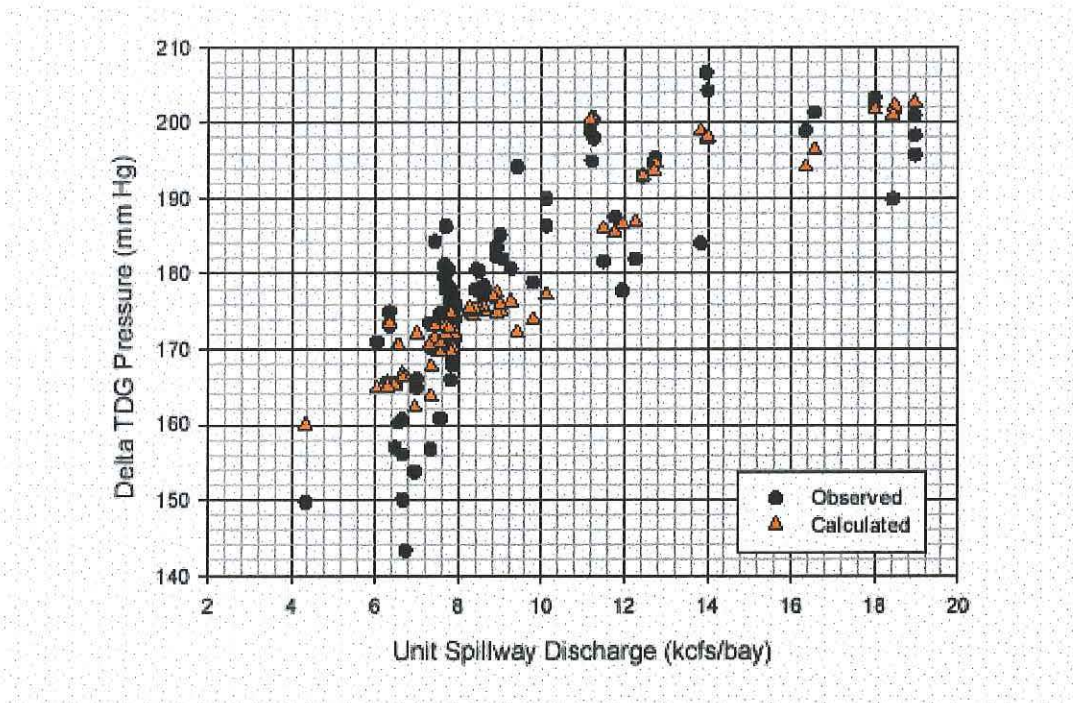


Figure 14. Unit Spillway Discharge versus TDG Pressure Above Barometric Pressure at The Dalles Dam, 1997

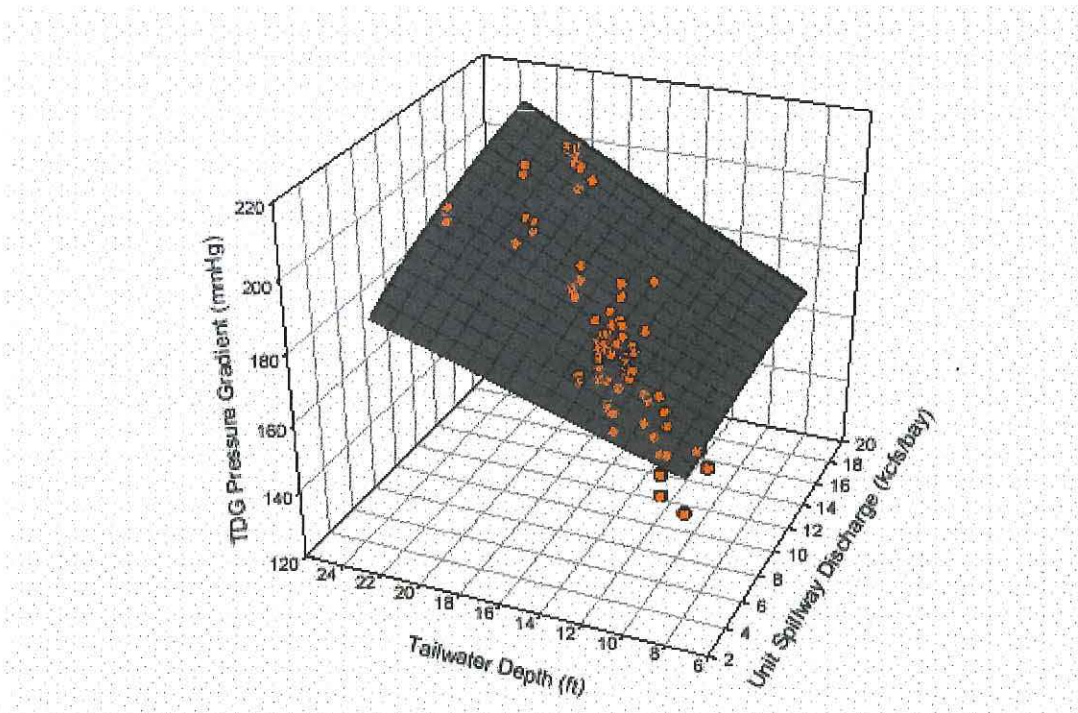


Figure 15: Unit Spillway Discharge, Tailwater Elevation, and TDG Pressure Above Barometric Pressure at The Dalles Dam, 1997

This equation also indicates that the depth of flow accounts for most of the variability in the increase in TDG pressure associated with spillway discharges. The increase in TDG pressure was found to be a linear function of the depth of flow for a constant unit spillway discharge. The tailrace channel depth is a function of the total river flow and the pool elevation of the lower reservoir. This relationship couples the operation of the powerhouse at The Dalles and the storage management in Bonneville pool to the TDG production in spillway releases from The Dalles spillway.

The response function as defined in Equation 15 was used to create a hindcast of the TDG production observed during the 1997 spill season. The hourly project operation and TDG saturation at The Dalles tailwater FMS for June 1997 are shown in Figure 16 along with the estimates of the flow-weighted TDG saturation released from The Dalles based on Equation 15 and observations of TDG pressures in the forebay. In general, the estimated average TDG saturation was generally within seven mm Hg of the observed tailwater TDG pressure.

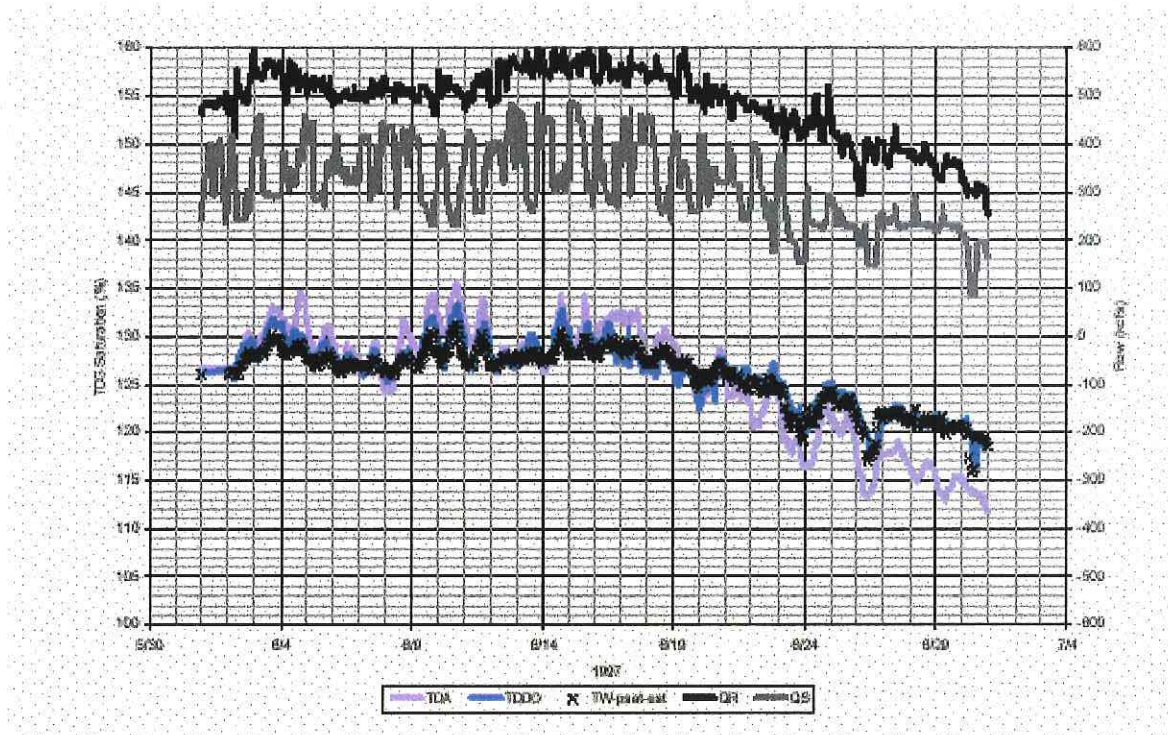


Figure 16: Observed and Estimated TDG Saturation at the Tailwater Fixed Monitoring Station at The Dalles Dam, June 1997. (TDA= Observed Forebay TDG, TDDO= Observed Tailwater TDG, TW-psat-est =Calculated Tailwater TDG, QR= Hourly Total River Flow, QS= Hourly Spillway Flow)

The maximum daily spillway discharge and percent of river spilled varied greatly during June 1997, with spill discharges as high as 480 kcfs. The forebay TDG pressures often were

higher than the tailwater TDG pressures, implying a net reduction in TDG conditions in the Columbia River as a result of the operation of The Dalles. The second half of June found the TDG pressures below The Dalles larger than observed at the forebay station, implying a net increase in TDG conditions in the Columbia River as a result of the operation of The Dalles. The conditions during the latter half of June in 1997 reflect conditions more typical of fish passage spill conditions where spill at The Dalles contributes to higher TDG loading in the Columbia River.

Powerhouse Entrainment

The entrainment of powerhouse water into the aerated spilling basin was assumed to be zero at The Dalles. The powerhouse is located a considerable distance from the spillway. The standard spillway design efficiently dissipates energy in the stilling basin, which minimizes the potential to entrain flow laterally. The extent of aerated flow generally does not extend downstream of the shallow shelf below the stilling basin. The TDG exchange was not found to be large near the downstream limits of the shallow tailwater shelf below the spillway (Schneider and Wilhelms, 1996a).

Bonneville Dam

The TDG Exchange

A description of TDG exchange at Bonneville is needed to evaluate dissolved gas abatement alternatives and develop a system model of TDG properties. The following summarizes the findings of two TDG exchange studies conducted below Bonneville and the TDG production relationships that were derived from this body of work.

The first study was conducted during February 1-4, 2000 and involved measuring TDG pressures and velocities below the Bonneville spillway. The objective of this investigation was to describe the TDG exchange processes associated with non-deflected bays, deflected bays, and a combination of deflected and non-deflected bays as dictated by the standard spill patterns.

The second test was conducted during May 7-June 7 and involved measuring TDG pressures near the exit of the Bonneville spillway channel. The objective of this test was to investigate the role of tailwater elevation changes on the exchange of TDG associated with spillway releases during standard operating conditions.

The TDG pressures and flow distributions were measured near the exit of the Bonneville spillway channel during the first week in February (Schneider, 1999). A total of 11 TDG instruments were deployed across the channel at fixed locations and logged TDG pressure, water temperature, dissolved oxygen, and instrument depth on a 15-minute interval. The velocity field was also measured near this array of instruments using an Acoustic Doppler Current Profiler. The TDG pressures were then integrated with the velocity field to estimate the TDG loading produced during spillway operations.

The test conditions involved spillway flows over non-deflected bays, deflected bays, and a combination of both deflected and non-deflected bays. A total of five spill levels corresponding with gates setting of one, two, three, four, and five dogs were investigated for four different spill patterns. (“Dogs” are pawls or cams that drop into holes on the sides of leaf gates on Bonneville and McNary dams. The leaf gates are hoisted by cranes, the dogs drop in to keep the gate set at one place. They are spaced approximately a foot apart.) The first day of testing used only non-deflected bays two, three, 16, and 17 (day one). The spill pattern for the second day of testing involved only deflected bays eight through 15 with spill flow uniformly distributed (day two). The third day of testing involved a uniform pattern over deflected bays nine through 15, and non-deflected bays 16 and 17 (day three). The spill pattern tested on the fourth day involved the standard 1997 spill pattern (day four).

The non-deflected bays generated the highest TDG saturation for gate setting(s) up through three dogs as shown in Figure 17.

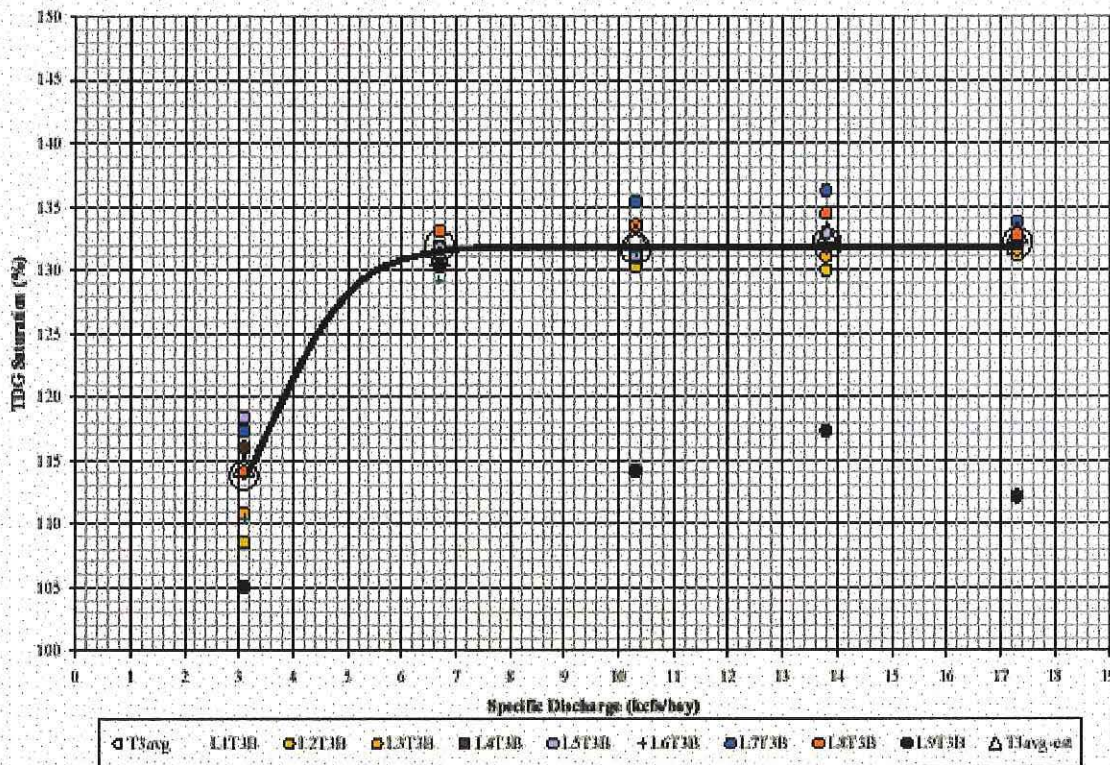


Figure 17: TDG Saturation from Non-deflected Bays at Exit of the Bonneville Spillway Channel, February 1, 1999

The steady-state TDG saturation at nine sampling stations on transect T3 located at the mouth of the spillway channel are shown in this figure. The stations were labeled L1 through L9 from south to north along this transect. The flow-weighted TDG saturation on this transect is labeled

T3avg. During the two-dog setting, the non-deflected bays generated an average TDG saturation of 132 percent or about 12 percent greater than the comparable flows during day two. The TDG saturation associated with non deflected bays remained constant for gate settings of two dogs and higher.

The TDG saturation response to the unit spillway discharge over only deflected bays was nearly linear for gate settings of one through four dogs. This relationship was nearly identical to similar conditions measured during the initial Bonneville spillway performance test (Wilhelms and Schneider, 1997b). The TDG saturation at two dogs was observed to be about 120 percent on all 11 instruments located across the spillway exit channel. Larger lateral gradients in TDG pressure were observed for higher discharges over the deflected bays as shown in Figure 18.

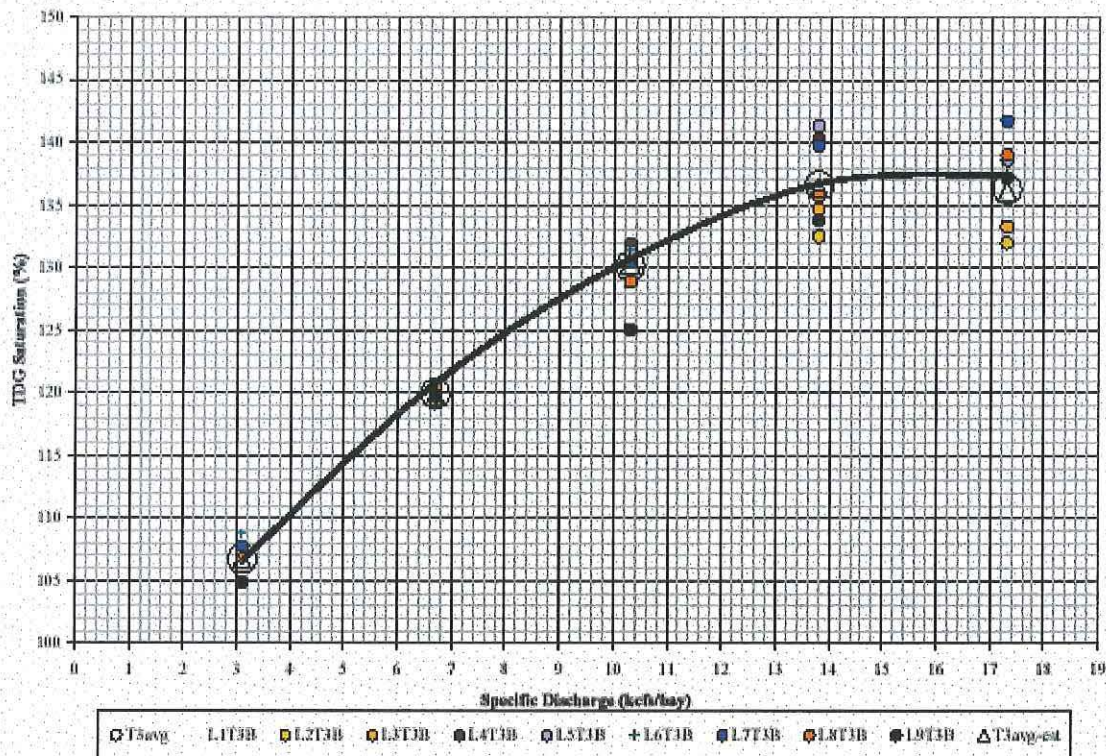


Figure 18: Observed TDG Saturation below Bonneville Spillway during Uniform Flow over Deflected Bays 8-15, February 1-4, 1999

The TDG pressures generated with deflected spillway releases were observed to be greater than conditions for non-deflected bays for spillway flows of four dogs and higher.

A flow-weighted specific spillway discharge was determined for the standard spill pattern because of the non-uniform distribution of flow. This representation of unit spillway discharge

places more importance on flows from bays with larger discharges. The spill patterns during the five test conditions on day four are shown in Figure 19.

The initial discharge of 50 kcfs on day four had a flow-weighted discharge of over 6 kcfs/bay due to the gap-toothed pattern where a highly non-uniform flow distribution was used. The high percentage of flow over the non-deflected bays resulted in nearly a constant TDG saturation for the first three test conditions. The slope of the TDG saturation and unit discharge curve approached conditions observed during the uniform patterns on day 3 during spill over both deflected and non-deflected bays. The TDG saturation associated with the standard spill pattern was 125 percent and higher for all the test conditions.

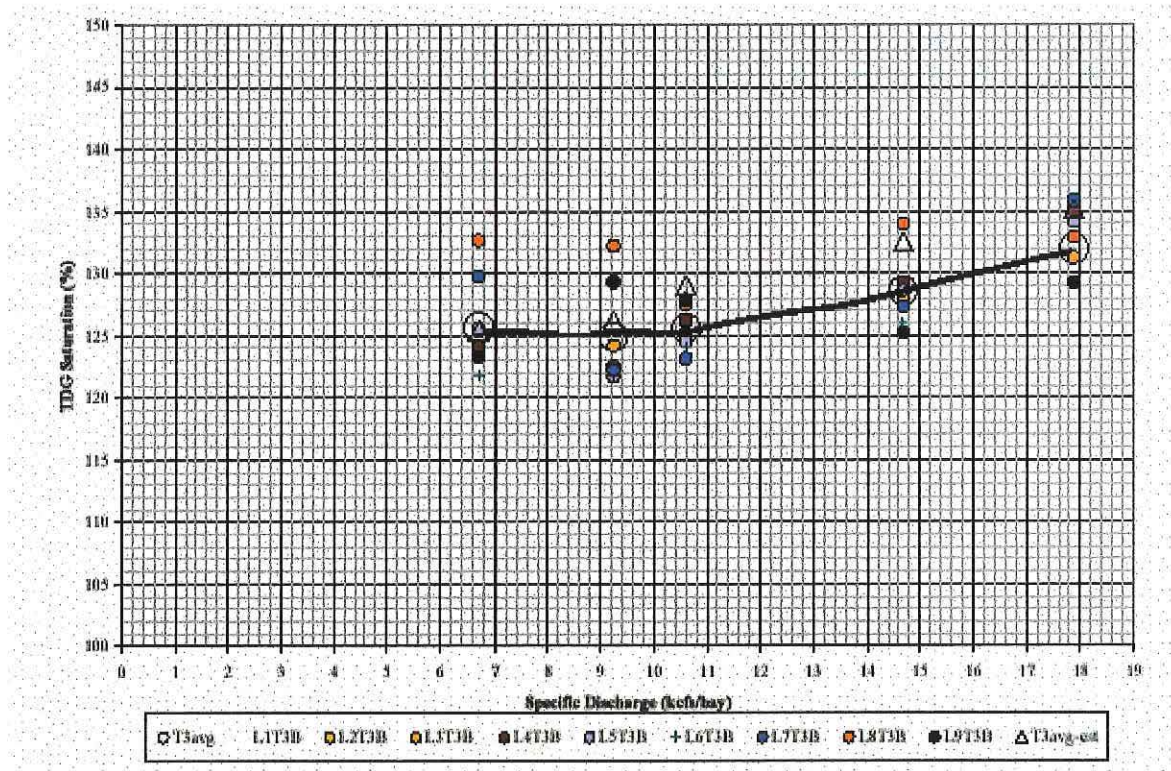


Figure 19: Observed TDG Saturation below Bonneville Spillway During Standard Spill Patterns Over Deflected Bays 4-15 and Non-Deflected Bays 2-3, 16-17, February 1-4, 1999

Regression

Empirical relationships were derived for non-deflected and deflected bay spill conditions. These regression equations were then applied to the individual bays used in the mixed bay spill patterns on the third and fourth day of the test to determine if these properties were additive. An exponential equation was fitted to the five flow conditions observed on the first day (non-deflected bays only). The following equation expresses the increase in TDG pressure

over barometric pressure as a function of the unit discharge. Equation 16 is applicable only to non-deflected bays 1, 2, 3, 16, and 17 at the Bonneville spillway.

$$\Delta P = 255.58 - 1031.58e^{-0.639q_s} \quad \text{Equation 16}$$

Where:

$$\begin{aligned} \Delta P &= P_{tdg} - P_{bar} \text{ (mmHg)} \\ q_s &= \text{Unit spillway discharge (kcfs/bay)} \\ q_s &> 3.0 \text{ kcfs/bay} \end{aligned}$$

A third order polynomial was fit to the five test conditions associated with the uniform spill over deflected bays. A third order polynomial was chosen because of the rapid change in slope of the curve at the higher discharges. Equation 17 expresses the increase in TDG pressure over barometric pressure as a function of the unit discharge. This equation only applies to the deflected bays four through 14 at the Bonneville spillway. This equation is not appropriate for unit discharges less than three kcfs/bay.

$$\Delta P = -0.0567q_s^3 + 0.421q_s^2 + 27.823q_s - 37.067 \quad \text{Equation 17}$$

Where:

$$\begin{aligned} \Delta P &= P_{tdg} - P_{bar} \text{ (mmHg)} \\ q_s &= \text{Unit spillway discharge (kcfs/bay)} \\ q_s &> 3.0 \text{ kcfs/bay} \end{aligned}$$

Equations 16 and 17 were applied to the individual spillway bay discharges observed during the third and fourth day of testing during the first week in February. The resulting pressures were then multiplied by the ratio of spillway bay discharge to total spillway discharge and summed to determine the flow-weighted pressure change. The barometric pressure was then applied to calculate the TDG saturation. The individual station saturations (L1T3B-L9T3B), cross-sectional average saturation (T3avg), and forecasted aggregate saturation (T3avg-est) are shown in Figure 19 for the standard spill pattern. The forecast of the TDG saturation associated with the standard pattern followed the general trend in the data. The forecasted TDG saturation overestimated the observed average conditions for the higher gate settings. The forecasted value falls within the range of observed values of TDG saturation downstream of the highly aerated flow regime.

The two-equation flow-weighted average formulation was also applied to the operations data gathered during the supplemental TDG test conducted below Bonneville from May 7-June 7. Equations 16 and 17 were applied to the observed spillway bay discharge and average TDG saturation for spillway releases was determined using a flow-weighted approach. The average

spillway TDG saturation was plotted with project operations, forebay FMS TDG saturation, tailwater FMS TDG saturation, and auxiliary station TDG saturation as shown in Figure 20.

The average TDG saturation released from Bonneville was estimated using the formulation presented above for the spillway contribution. The TDG loadings associated with powerhouse releases were estimated by the product of powerhouse discharge and forebay FMS TDG saturation. The estimated loading from the spillway was determined by the product of the spillway discharge and estimated spillway TDG saturation. The flow-weighted average TDG saturation released from Bonneville is shown in Figure 20 under the heading of TDG-tw-est. The estimated average TDG saturation closely followed the observed data at the tailwater FMSs during most of the study period. The TDG distribution at the tailwater FMS is often not uniform and, therefore, cannot be used as a rigorous validation of this formulation. However, this comparison does lend additional credence to the formulation cited above.

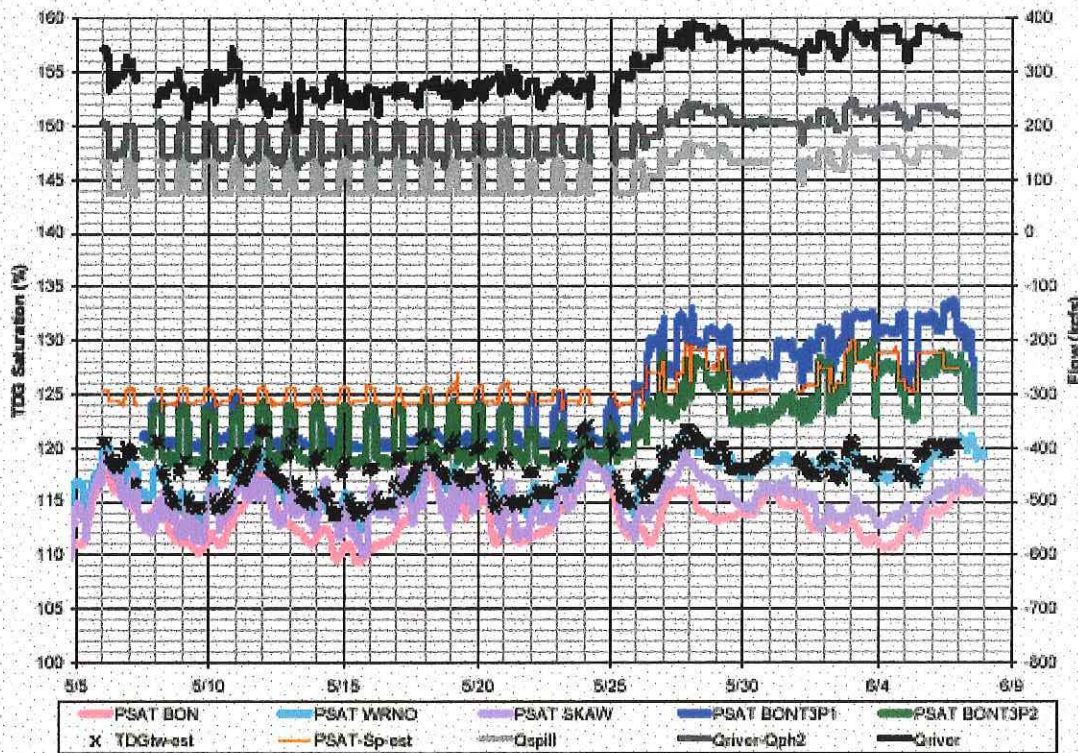


Figure 20: Observed and Estimated TDG Saturation Below Bonneville Spillway During Spill Season, May 5 – June 8, 1999

Powerhouse Entrainment

The entrainment of powerhouse flow was assumed to be zero at Bonneville because of the physical barriers created by Bradford and Cascade Islands. The TDG exchange was not found to extend below the spillway channel during near-field investigations.

Load Allocations

For the purpose of this TMDL, each dam will be provided with a load allocation, because no NPDES permits will be issued to the dams to regulate TDG caused by spills¹. This approach is also reasonable for several reasons:

- Spills entrain air to reach a polluted state, much like a high-energy release of water might erode a stream bank.
- Dams are essentially very large instream structures that will require modifications to achieve compliance with water quality standards.
- The level of improvement expected from any specific structural or operational modification is uncertain, and therefore a series of modifications may be needed to achieve the desired outcome, with effectiveness monitoring to assess results.

Wasteload allocations in this TMDL are zero, because there are no NPDES-permitted point sources that contribute to elevated TDG in the Lower Columbia River.

Table 12 shows the load allocations for each of the four dams on the Lower Columbia River. Because of the unique nature of TDG, load allocations are not directly expressed in terms of mass loading. Like loading capacity, allocations are in terms of ΔP applied site-specifically for each dam.

Table 12: Load Allocations for TDG in Lower Columbia River

Location Name	Load Allocation*
Upstream Boundary	75
McNary Dam spill	75
John Day Dam spill	75
The Dalles Dam spill	75
Bonneville Dam spill	75

* as excess pressure above ambient (ΔP), mm Hg

Load allocations for spills are equal to loading capacity. An analysis was conducted to evaluate the possibility of applying background load allocations that represent an increase in TDG percent saturation caused when ambient water temperatures increase as water moves downstream through the pool of the downstream dam. This can occur because, if gas exchange is negligible (such as occurs on windless days), an increase in water temperature will decrease the saturation concentration. As a result, a fixed mass of TDG in the pool will represent a higher TDG percent saturation if water temperature increases.

¹ The Courts have determined the characterization of dams as point sources for which NPDES permits will not be issued for certain parameters. The current policies of the states of Washington and Oregon are to not issue NPDES permits for TDG.

The potential temperature increase in each pool was evaluated. For each dam the time of travel was estimated from the application of EPA's RBM-10 model (USEPA, 2001) for a 10-year period. The 90th percentile travel time (in days) for each month was then used to determine the maximum temperature increase for that travel time. The increase in TDG for highest 90th percentile seasonal temperature increase was then determined. However, it is likely that windy conditions in the TMDL cause sufficient degassing to offset increases in TDG from water temperature increases. Average daily wind speed was evaluated and plotted against temperature increases (shown in Figure 21 for The Dalles). Then the potential degassing effect was evaluated from several of the equations used in TDG modeling as summarized in Appendix B of Cole and Wells (2001). This analysis indicates that the concurrence of increasing temperature with low rates of degassing is relatively rare. Therefore, the effect of water temperature increases on TDG is not included in this TMDL.

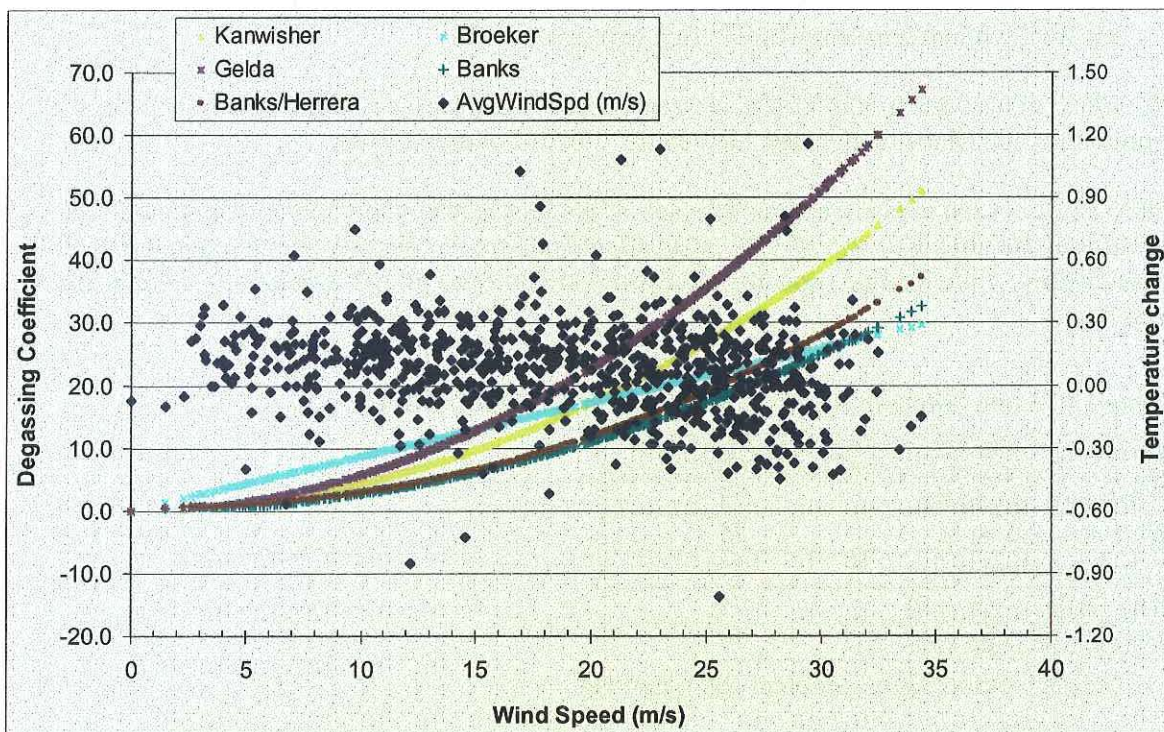


Figure 21. Comparison of Water Temperature Increases to Wind Speed

Given the clear mathematical relationship between spill quantities, the load allocations (ΔP), and TDG percent saturation, compliance with load allocations will be met by specifying operational and structural goals for spills that prevent the load allocation from being exceeded. In general, the long-term goal of meeting water quality standards must be met with structural modifications to the dam projects. In the short-term, operational methods will be used to protect beneficial uses to fullest extent and meet standards whenever possible.

Long-term Compliance with Water Quality Standards

Compliance with Standards for All Spills

Federal and state laws and rules require compliance with state water quality standards, and therefore the ultimate goal of this TMDL is to achieve compliance. However, to meet this goal, this TMDL must address several complicating factors.

In much of the literature a distinction is made between “voluntary” and “involuntary” spill. In terms of compliance with water quality standards, this distinction is misleading. Endangered Species Act requirements for spills must be considered to be just as binding as Clean Water Act requirements. And like many other situations in the environmental field, the solution for a problem impacting one resource may cause problems to another resource. As an example, chlorine may be added to wastewater to provide disinfection to protect public health. But chlorine also can create a problem with toxicity in the effluent for fish and other beneficial species. This conflict does not mean the dischargers get to stop disinfecting, it means that they either need to reduce chlorine toxicity by dechlorination or find other non-chlorine methods of disinfection. The goal here is to balance two valued resources, human health and aquatic life. Similarly, the dams have an obligation to both meet water quality standards and Endangered Species Act requirements. If spills are necessary to protect endangered species, then those spills must also meet standards to protect aquatic life in general. The dam operators also have the option of finding alternative ways to protect species without spills.

The point here is that spills for fish passage are not really “voluntary”; rather they are spills required for reasons other than a lack of powerhouse capacity. If the public interest necessitates that spills be required to protect fisheries or other beneficial uses of the water, then dams must meet water quality standards under spills of any volume up to the 7Q10 flood flows. In addition, spills can occur at any time and at any volume due to lack of power demand or powerhouse maintenance or failure. Therefore, this TMDL will be applicable for all spills below 7Q10 river flood flow conditions, regardless of the cause of the spill. (See Table 14 in *Seasonal Variations* for 7Q10 flows.)

Operational versus Structural Solutions

The Lower Columbia River dams, as currently designed, are incapable of meeting the water quality standards for all spill flow levels. Therefore, compliance with this TMDL will require structural changes. The Dissolved Gas Abatement Study (DGAS) report outlines a variety of alternatives for operational and structural changes, which move in the direction of compliance under all spill levels. However, the effectiveness of these changes can only be estimated, and must be assessed after implementation. Also, implementation of structural solutions is dependent on Congressional appropriations. Therefore long-term compliance with this TMDL will take a significant length of time and must take into account a certain level of inherent uncertainty.

Compliance Locations

The compliance locations for dam spills were chosen from several options, illustrated in Figure 22:

1. By a strict interpretation of state water quality standards without any consideration of applying the mixing zone provisions of the water quality standards, the point of compliance would be at the point of maximum TDG. However this is a location that is difficult to identify and monitor in real time, and does not take into account the rapid degassing in the aerated zone.
2. If mixing zone provisions were applied to the aerated zone, then the point of compliance would be at the end of the aerated zone. This location would be easier to identify for regulatory purposes.
3. The point of compliance could be at the FMS sites, but mixing zone provisions would need to be applied to the entire river, including powerhouse flow. The location of the FMS sites area clearly identified, but are inconsistent with respect to the mixing of spills with powerhouse flows.

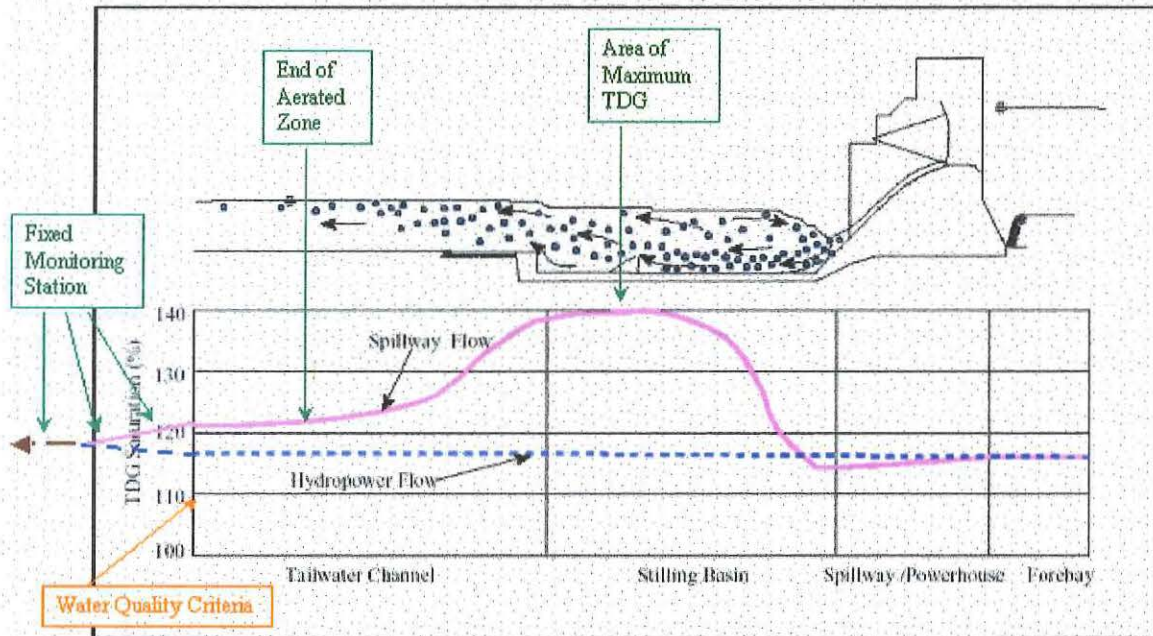


Figure 22: Possible locations of Compliance Locations with Respect to TDG Levels

The point of compliance for load allocations for the dams in this TMDL will be based on application of the mixing zone to the aerated zone immediately below the spillways of the dams. The water quality standards for the states of Washington and Oregon provide an allowance for a mixing zone, and compliance with standards is required at the boundary of the mixing zone.

There are several reasons that use of a mixing zone is appropriate in this situation:

- TDG levels rise immediately below the spillway, but then degas for some distance downstream. The points of compliance were determined from U.S. Army Corps of Engineers research which identified the location where degassing was mostly complete. This is a local area of impact with very dynamic conditions.
- Because the area below the spillway is very dynamic, TDG levels are difficult to accurately assess.
- Extensive fisheries research has shown that most anadromous fish are able to pass through this area below the spillway quickly without ill effects.
- Because of the turbulent flow associated with the spill above the compensation depth, little or no resident fish habitat is available in this area. (The zone below the compensation depth is in compliance with standards.)
- Provision of a mixing zone and deviation from the size requirements are appropriate because of the public interest in ensuring that water quality standards are applied appropriately to the dam projects.

The compliance locations for load allocations are shown in Table 13. The load allocation for the upstream boundary applies below the Snake River confluence, and will be addressed in the TMDLs for the Mid Columbia and Lower Snake rivers. The compliance location for each spill load allocation will be at the end of the aeration zone in the tailrace of each dam, at the location specified in the Table 13. The pool above each dam also must comply with the load allocation for the upstream dam, which is equal to the loading capacity.

Monitoring of Compliance

For monitoring of long-term compliance, it will be necessary to monitor at the loading capacity compliance locations in the tailrace. However, it is not expected that these locations will lend themselves to a permanent remote monitoring setup. Compliance will be determined in two ways: (1) periodic synoptic surveys, especially after structural changes have been completed, and (2) continuous monitoring, using a statistical relationship between the continuous monitor and conditions at the compliance location. This allows long-term monitoring to be managed separately from monitoring for short-term operational needs.

For short-term compliance, the FMS stations can continue to be used, or new FMS stations can be established. This will allow operational management that is linked to easily accessible data, based on overall environmental management needs and the realities imposed by structural characteristics. Thus, short-term compliance can remain adaptive and flexible, while long-term compliance remains fixed to firm goals.

Table 13: Compliance Locations for TDG Load Allocations

Project	Location
Upstream Boundary	Below Snake River confluence (to be linked to upstream TDG TMDLs)
McNary Dam spill	1000 feet below end of McNary spillway ¹
John Day Dam spill	1700 feet below end of John Day spillway ²
The Dalles Dam spill	600 feet below end of The Dalles spillway ³
Bonneville Dam spill	1700 feet below end of spillway ⁴

¹Wilhelms and Schneider, 1997b

²Schneider and Wilhelms, 1999

³Schneider and Wilhelms, 1996

⁴Wilhelms and Schneider, 1997a

Margin of Safety

The margin of safety for this TMDL is implicit in the TMDL analysis through the use of conservative assumptions. A detailed analysis of how the margin of safety is included is provided below.

Critical Conditions

No specific high- or low-flow critical conditions exist for this TMDL. Spills that generate high gas levels can occur in any season and load allocations are applicable to spills at all flow levels below the 7Q10 flood flow.

Certain parameters that are necessary to develop load allocations were established at levels equivalent to critical conditions. As described above, time of travel, temperature, and barometric pressure were all developed at critical levels. This approach introduces several conservative assumptions that provide a margin of safety to the TMDL.

Criteria versus Site-specific Conditions

Probably few river systems have been as extensively studied for the effects of TDG than the Columbia system. Extensive research has been conducted for over 40 years on TDG and aquatic life. Currently federal, state, and tribal fishery agencies all support a more lenient standard than currently in state regulation. Review of EPA guidance also suggests the criterion could be applied with an averaging period, rather than as an instantaneous value. Therefore, the current standards include an implicit margin of safety when applied to this river system.

Data Quality and Quantity

A margin of safety is usually identified in a TMDL to recognize uncertainty in the data used to produce the TMDL. Due to the monitoring requirements imposed by the Oregon Environmental Quality Commission and Washington State Department of Ecology as a part of the fish passage program over the past seven years, there is a great deal of hourly data of TDG levels, barometric pressure, water temperature, tailwater elevation, forebay elevation, total river flow and spill quantity. Fairly rigorous standardized data quality procedures are provide for these data. These data are available on the Technical Management Team homepage, hosted by the Northwest Division of the U.S. Army Corps of Engineers at:
<http://www.nwd-wc.usace.army.mil/TMT/welcome.html>.

Further, the Corps has undertaken an extensive Dissolved Gas Abatement Study (DGAS) over the past five years. The study included near-field TDG monitoring and the development of a mathematical model to describe the production, dissipation, and behavior of TDG in the Columbia system for the federal projects. The data collection also followed standardized data

quality procedures. The production of TDG at the four hydroelectric projects that are the identified sources in this TMDL are, therefore, well understood.

As a result of this monitoring, there are abundant data of good quality for constructing this TMDL. The margin of safety required for data and modeling variability is therefore considered to be small.

Seasonal Variations

Exceedances of the TDG standard occur most commonly during mid-April to the end of August, which is both the fish migration season and the high-flow season in conjunction with spring runoff. One of the determinants of TDG levels is total river flow. When river levels are particularly high, TDG levels rise more rapidly if there is any water spilled over the spillway. During low-flow periods, there is generally not a TDG problem, other than spill for fish passage, as long as all water is passed through the powerhouses.

Occasionally turbine units will be out of service for maintenance, either scheduled, or on an emergency basis. This may require water to be spilled, because there are insufficient turbines available to handle the water in the river. This can occur due to Bonneville Power Administration power purchasing and the sequencing of water releases from upstream storage reservoirs.

Clearly, there is little control over emergency outages. Maintenance is generally scheduled (1) to coincide with low electricity demand periods, and (2) when river flows are such that they will not cause TDG exceedances.

In summary, spills can occur at any time, although they are most likely in the spring and early summer. The TMDL has been written so that the limits apply at any season, since they are based on spill and not on river conditions. The *Margin of Safety* section describes how seasonal critical conditions were applied to the development of load allocations. TMDL limits apply year-round, but they have taken season critical conditions into consideration.

7Q10 Flows

As discussed above, Oregon and Washington's water quality standards only apply when river flows are below the 7Q10 flood flows. These flows, shown in Table 14, were calculated from flows measured and reported by the U.S. Geological Survey. Methodology followed the guidelines of the U.S. Water Resources Council (1981):

- U.S. Geological Survey flows at The Dalles were used for The Dalles Dam and as a starting point for the other three dams.
- For Bonneville Dam, flows from the major tributaries below The Dalles (Hood, Klickitat, and White Salmon rivers) were added on a day-by-day basis to create a synthetic time series for Bonneville, and then followed the process for fitting the distribution and calculating the 7Q10.
- For John Day Dam, Deschutes River flows were subtracted from The Dalles flows, lagging The Dalles data by two days. The lag was determined by the best fit to a linear regression from a series of different lags using the 90 percent highest flows.
- For Mc Nary Dam, John Day River flows and Umatilla River flows were subtracted from the John Day Dam flow series, lagging the John Day Dam and River flows by three days. The lag was determined as described above.

Annual peak 7-day average flows were calculated (using the October-September Water Year from 1975 through 2000), and then the 10-year return flow was determined by the Log-Pearson Type 3 method. The skew coefficient used in the analysis was calculated from the data; the generalized and weighted skew was not determined or used, but the error introduced by this shortcut was probably small to nil.

Table 14: Lower Columbia River 7Q10 flood flows

Site	Flow (cfs)
Mc Nary Dam	447,000
John Day Dam	454,000
The Dalles Dam	461,000
Bonneville Dam	467,000

Summary Implementation Strategy

Overview

The goal of this total dissolved gas TMDL for the Lower Columbia River is to meet Oregon and Washington's water quality standards for TDG. The goal of water quality standards is to protect beneficial uses of the river. While these include such beneficial uses as hydropower generation, irrigation, drinking water, and water contact recreation, the most sensitive use is anadromous salmonids. These species are particularly vulnerable, as they navigate past the dams both as downstream migrating juveniles and as upstream returning adults.

The four dams on the river pass water by spilling over the spillway, by generating electricity through the turbines, and to a much lesser extent by passing water through special fish facilities such as adult ladders and juvenile fish passageways. TDG is generated by spilling water over the spillway. Absent considerations for fish survival, spills are considered "involuntary" since they occur due to lack of powerhouse capacity. Involuntary spills can be caused by flood flows, lack of electric load for powerhouse generation, or turbines being off-line due to maintenance or repair. However, fish survival needs necessitate spills to improve juvenile fish passage.

Up to a point, the danger to fish from exposure to high TDG is overshadowed by the dangers to fish of going through the turbines. In response, the National Marine Fisheries Service performed a comparison risk analysis that forms the basis for modifications to both Washington and Oregon's water quality standard for TDG.

In December 2000, the National Marine Fisheries Service released a Biological Opinion under the federal Endangered Species Act for 12 listed species in the Columbia River. A significant component of this Biological Opinion is the provision of spilled water at the Lower Columbia River hydropower facilities to facilitate fish passage. In addition, spill for juvenile fish passage is beneficial for non-ESA listed species. Clearly, if spilled water is the cause of elevated TDG levels but is required for fish passage, care needs to be taken not to implement gas abatement measures that may benefit water quality, while damaging the beneficial uses, such as juvenile migration, that the federal Clean Water Act was designed to protect.

This implementation strategy therefore must take into account both requirements: to reduce high TDG generated at the dams by spilling water, and to provide the levels of spill under the Biological Opinion to facilitate fish passage. Additional provision for spill is sometimes necessary for non-listed species.

Gas reduction at the four Lower Columbia River dams has been the subject of intensive research over the past six years. Federal fish agencies, tribes, the U.S. Environmental Protection Agency, Bonneville Power Administration, state fish and wildlife departments, and the U.S. Army Corps of Engineers are organized into work groups to address the TDG problems. The result of this is a much enhanced understanding of the generation and dynamics of TDG production. In addition, implementation actions designed to reduce TDG generation have already been undertaken

(e.g., the installation of flow deflectors or “flip lips” at John Day Dam). Further actions are planned, but funding is often dependent on Congressional approval and is linked to basin priorities for the Columbia River.

Implementation Plan Development

The operation of the Columbia River hydropower system is carried out through multiple agencies and governed by several regulatory authorities. The following is a list of these parties:

- The U.S. Army Corps of Engineers operates the dams and provides engineering, contracting and construction authorities (based on funding from Congress) for structural changes at these dams. The Corps provides flood control oversight and responds to the energy, environmental, transportation, and recreational needs of the public. The Corps is required to achieve a balance between these requirements where they conflict.
- The National Marine Fisheries Service and the U.S. Fish and Wildlife Service oversee the protection of endangered species, 12 of which are salmonids found in the Lower Columbia River. Several forums have been established to oversee implementation of the Biological Opinion requirements for these species. These forums include a water quality team which focuses on temperature and TDG management, a technical management team that makes decisions regarding hydropower operations, a system configuration team that makes decisions on structural modifications, and an implementation or policy team to which policy issues that cannot be resolved in the other forums are elevated.
- Tribes have treaty rights to the salmon in the Columbia and are involved on many levels of fish management and environmental protection.
- The Bonneville Power Administration oversees power production and distribution. Revenues help fund fish and environmental mitigation for the impact of the dams.
- Washington and Oregon Departments of Fish & Wildlife work within the forums detailed above, as well as protect and enhance non-listed salmon, resident fish, and wildlife.
- The U.S. Environmental Protection Agency is part of the caucus of federal agencies involved in operation and management of the federal Columbia River hydropower system. Its specific role is to ensure consistency with federal environmental laws and regulations. The agency will ultimately approve this TMDL under Section 303(d) of the federal Clean Water Act.
- Washington State’s Department of Ecology and Oregon’s Department of Environmental Quality will oversee implementation of this TDG TMDL. They will work collaboratively with each other, as well as with the U.S. Army Corps of Engineers, tribal, and other state and federal agencies through existing forums.
- Numerous other agencies are involved in different aspects of river management that can have a bearing on TDG generation. The most prominent include the Northwest Power Planning Council, data gatherers such as the Fish Passage Center and U.S. Geological Survey, upriver

activities and interests that affect gas production such as BC Hydro and the U.S. Bureau of Reclamation, as well as Corps storage facilities in Canada and Lake Roosevelt: the U.S./Canada Treaty power sharing and storage agreement, public utility districts on the Mid-Columbia, and the state of Idaho.

Meeting the load allocations in this TMDL will fall into two phases. Phase I will involve improving water quality, while ensuring that salmonid passage is fully protected in accordance with the National Marine Fisheries Service's Biological Opinion. Phase II will involve structural and operational changes to dams to achieve the water quality standard for TDG.

The short-term actions in Phase I will focus on meeting the fish passage performance standards as outlined in the National Marine Fisheries Service 2000 Federal Columbia River Power System Biological Opinion through spills that generate gas no greater than the "waiver" levels of the water quality TDG standards (Oregon variances or Washington temporary special conditions). Water quality standards are measured at existing fixed monitoring stations managed by the U.S. Army of Engineers and U.S. Geological Survey. This phase will also include short-term structural modifications at the dams to achieve TDG reductions during periods of spill, while ensuring that the fish passage requirements of the 2000 Biological Opinion are met. As part of Phase II, a Detailed Implementation Plan or equivalent will be developed (possibly through the Water Quality Plan under the Biological Opinion).

Phase II will evaluate success from the short-term actions. The second phase will also move toward further structural modifications and reductions in fish passage spill if the Biological Opinion specified performance standards are being met and adequate survival is provided for non-listed species.

Biological monitoring has been required by the states of Oregon and Washington in order to assess gas bubble trauma to fish as a result of spill. Based on six years of data, the results show little trauma to migrating juvenile salmon at TDG levels allowed by the states in their modified water quality standards. As a result, thought has been given to permanently modifying the water quality standards or establishing site-specific criteria for TDG for the Columbia River. The purpose of this TMDL, however, is to allocate loads to meet the existing water quality standard.

Changing water quality standards is a separate process and is not one of this TMDL's implementation strategies. However, the authors of this report support the evaluation of the appropriateness of the water quality standards for these four specific sites on the river in terms of TDG impacts to aquatic species. Any revision would proceed through the normal scientific review of the standard to ensure full beneficial use protection.

Implementation Activities

As the operator of the four Lower Columbia River dams, the U.S. Army Corps of Engineers published its Final Draft Technical Report and Appendices of the Phase II Dissolved Gas Abatement Study (DGAS) in April 2001. This study was undertaken as part of the Columbia River Fish Mitigation Program. This study has been the result of an ongoing collaborative effort between many federal and state fisheries agencies, dam operators, tribes, and environmental

agencies toward reducing TDG in the river in balance with enhancing spill opportunities for juvenile salmon.

As detailed above, this implementation strategy is to be carried out in two phases.

Short Term – Phase I

This phase is already underway, as a result of actions taken by the Corps, and will continue through 2010. As detailed above, the emphasis in this phase will be taking those actions that will result in reductions of TDG, while ensuring the fish passage requirements of the 2000 Biological Opinion are met. The Biological Opinion envisions spill for fish passage under modified water quality standards of Oregon and Washington, as have been provided for the past six years. Included in this program will be the near-term actions that have been identified in the Biological Opinion. Maintenance of required spill at the modified standards to allow for fish passage will be as measured at the fixed monitoring stations both in the forebay and the tailrace of each dam.

This phase will also address the first stages of reducing gas during spills due to high-flow events, turbine outages, and during lack of demand for electrical power. This is outlined in the Corps report, “Final Draft Dissolved Gas Abatement Report,” April 2001.

Table 15 includes specific structural implementation actions (from the National Marine Fisheries Service 2000 Federal Columbia River Power System Biological Opinion) that will be completed during this phase and are directly related to achievement of the water quality standard.

Table 15: Short-term Implementation Activities

2000 Biological Opinion Action Item Description	Completion Date	Action Item #
Ice Harbor Deflectors	Done	134
John Day Deflectors	Done	134
Survival based spill caps at all dams (e.g. 40% at The Dalles).	Done, ongoing	68, 82
Bonneville Endbay Deflectors	2002	134
McNary Endbay Deflectors	2002	134
Lower Monumental Endbay Deflectors	2003	134
Little Goose Endbay Deflectors	2003	134
Chief Joseph Deflectors	2003	136
The Dalles Deflectors	Under Evaluation	134
John Day Endbay Deflectors	Under Evaluation	140
Divider Walls at Appropriate Dams	Under Evaluation	135

Several operational implementation actions are available to minimize involuntary spill that are already in use, or can be evaluated during Phase I and implemented if practical. These include:

- Scheduling routine turbine maintenance and repair during low-power load and river flow periods.
- Preventive maintenance of turbines to prevent breakdown.
- System management of water release from upstream storage reservoirs to minimize involuntary spills at dams in the TMDL area.
- Optimizing power purchasing to allow maximum use of powerhouse capacity and minimization of involuntary spill.

Specific implementation methods for these actions will be provided in a Detailed Implementation Plan, or equivalent.

Table 16 contains additional short-term implementation actions that are indirectly related to achievement of the water quality standard. Implementation of these measures, though, is likely to improve salmonid passage and help achieve the performance standards of the Biological Opinion. Carrying out these actions will enable a decreased reliance on spilling water for fish passage in the near-term period. Voluntary spill levels for fish passage with their associated TDG will be reduced as these actions are implemented, and will result in achieving the survival performance standards contained in the 2000 Biological Opinion.

Table 16: Additional Short-Term Implementation Activities

2000 Biological Opinion Action Item Description	Completion Date	Action Item #
Bonneville Powerhouse 2 Corner Collector	2003 or 2004	66
Bonneville Powerhouse 2 Fish Guidance Efficiency Improvement	2003 - 2004	67
Lower Granite Removable Spillway Weir	2002	80
The Dalles Turbine Intake Blocks	2002 - 2004	69
Lower Monumental Bypass Outfall Relocation	2003 or 2004	76
The Dalles Sluiceway Outfall Relocation	Under Evaluation	70
Bonneville Powerhouse 1 Surface Bypass or Extended Screens	2004 or 2005	61, 62

Long Term – Phase II

This phase will begin in 2011 and proceed through 2020. Actions taken in the previous phase will be reviewed for their efficacy, both in improving TDG levels and for protecting salmonid passage. The Biological Opinion survival goals are being met through fish passage actions other

than spilling water. Reductions in gas entrainment through spill will be realized so that the required final goal of meeting the water quality standard for TDG can be met as measured at the end of the aerated zone below each dam.

Table 17 details those long-term actions that will protect fish passage while moving the system toward attainment of the water quality standard for TDG.

Table 17: Fish Passage Actions That Support TDG Water Quality Goals

2000 Biological Opinion Action Item Description	Completion Date	Action Item #
John Day Surface Bypass (may be Removable Spillway Weir)	Under Evaluation	72
Removable Spillway Weirs at Lower Monumental, Little Goose, and Ice Harbor	Under Evaluation	75, 77
McNary Bypass Improvements (outfall, temperature)	Under Evaluation	74, 142
Lower Monumental Extended Screens	Under Evaluation	78
John Day Extended Screens	Under Evaluation	73
Spill Effectiveness Studies	Ongoing	83
Predator Removal and Abatement	Ongoing	100-103
Improved Operation and Maintenance	Ongoing	58,59,63,144, 145,146
Bonneville Powerhouse 1 Minimum Gap Runners	Ongoing	64
Implement Turbine Survival Program Results	Under Evaluation	88, 90, 91, 92

The U.S. Army Corps of Engineers DGAS study identified a number of structural measures designed to abate TDG. Several of these measures should be evaluated for their efficacy in abating gas and ensuring that they provide safe and effective fish passage. If necessary, those measures found to be effective and safe should be identified for funding and implementation.

Reasonable Assurance

In support of this implementation strategy, structural work has already been carried out to reduce high levels of TDG at the four Lower Columbia River dams. Structural work has also been done on Snake River and Mid-Columbia River dams that can reduce high gas concentrations to the lower river. The track record for Congressional funding for these projects is good and there is reason to believe that further funding of projects will continue. Funding for the more expensive structural modifications of the second phase is entirely dependent on Congressional will, national

and regional priorities, and budgetary availability of funds. Funding to improve fish passage facilities also has a good track record, and there is reason to believe that this will continue to be funded both through Congress and energy revenues.

Both the Washington State Department of Ecology and the Oregon Department of Environmental Quality are responsible for ensuring that water quality standards are met. Both agencies are confident that the collaborative relationship with the dam operators toward reducing gas will continue and be enhanced through this TMDL. The U.S. Army Corps of Engineers has agreed to continue working through the Endangered Species Act forums established to oversee and to carry out the requirements of the Biological Opinion.

Both state environmental agencies have regulatory authority over the four federal dam projects. Washington's regulatory authority comes through the *Federal Clean Water Act*, the *Revised Code of Washington's Pollution Control Act 98-48* and the *Washington Administrative Code's Water Quality Standards 173-201A*. Oregon's authority comes through the *Federal Clean Water Act*, the *Oregon Revised Statutes' Water Pollution Control 468B*, and the *Oregon Administrative Rules' Water Quality Standards and Beneficial Uses 340-041-0001 to 0975*.

Adaptive Management

The process for reviewing the status of implementation of this TMDL will follow the timing and process for the review of the federal Biological Opinion in 2010. The Washington State Department of Ecology will convene an advisory group comprising representatives of tribes and federal and state agencies to evaluate appropriate points of compliance for this TMDL. Based on these findings, further studies may be needed, and structural and operational gas abatement activities will be redirected or accelerated if needed.

Monitoring Strategy

Short-term compliance and the effectiveness of operational implementation actions will be monitored at existing fixed monitoring station sites. The current fixed monitoring station TDG monitoring system consists of tailrace and forebay monitoring stations at each mainstem lower Snake and Columbia River dam and at key locations in some tributaries. While most of these stations do a credible job of reporting meaningful data, some have been shown to be questionable. This system is now undergoing a thorough review by the National Marine Fishery Service's Water Quality Team. Screening criteria will be developed and used to evaluate all existing monitoring stations. Stations that do not conform to these criteria will be relocated to more appropriate locations. This screening process will include consideration of how well the station represents TDG and water temperature in a given river reach and how sensitive the station is to non-spill factors that affect TDG, such as temperature and aquatic plant respiration.

Monitoring of long-term compliance with load allocations and the effect of structural changes will include an evaluation of previous and future near-field transect studies at the compliance location (the end of the aerated zone below each dam). Load allocation compliance monitoring will occur following major structural changes or immediately following the end of Phase I and

Phase II. Also, statistical relationships may be developed between TDG levels at the continuous monitoring location and the compliance location that allow real-time and long-term trend evaluation of compliance. Prior to the initiation of a load allocation monitoring survey, a quality assurance project plan, or equivalent, must be approved by the Washington State Department of Ecology and the Oregon Department of Environmental Quality. The quality assurance project plan should address the safety and stability of the site to support monitoring equipment and activities when subject to the strong hydraulics below the dams. Due to these factors, it is possible that an alternate site may be needed. If so, some correlation to the load allocation compliance point will be necessary.

Potential Funding Sources

A discussion on funding is warranted, given the expensive nature of some of the suggested structural actions. Known funding sources include power generation revenues through Bonneville Power Administration, as directed by the Northwest Power Planning Council and System Configuration Team and the U.S. Congress. State, tribal, and federal agencies will continue to work with their counterparts in Canada in an attempt to reduce the TDG loading coming across the international border. Canada has shown a great willingness to invest in technologies to help reduce TDG loadings.

Summary of Public Involvement

The states of Washington and Oregon developed and implemented the Public Involvement and Outreach strategy for this TMDL project in partnership with the Columbia/Snake Rivers Mainstem TMDL Coordination Team.

These TMDL team members include the U.S. Environmental Protection Agency, Idaho Department of Environmental Quality, Oregon Department of Environmental Quality, Washington State Department of Ecology, Western Governors Association, Columbia Basin Tribes, and the Columbia River Inter-Tribal Fish Commission.

The public involvement period on this proposed TMDL began February 18, 2002 and ended April 15, 2002.

Public hearings were held:

- March 18, in Kennewick, Washington
- March 19, in Pendleton, Oregon
- March 22, in Portland, Oregon and in Vancouver, Washington

Individual outreach meetings were held with the appropriate watershed advisory groups and with primary stakeholders, which included:

- Spokane Tribe
- Confederated Tribes of the Colvilles
- U.S. Army Corps of Engineers (Portland, Walla Walla, and Seattle Districts, and Pacific Northwest Division)
- Grant, Chelan, and Douglas Public Utility Districts
- U.S. Bureau of Reclamation
- Bonneville Power Administration
- National Marine Fisheries Service

In addition, meetings and presentations were held with the National Marine Fisheries Service Water Quality Team that includes federal and state agencies, public utility agencies, tribes, and Bonneville Power.

The TMDL team held public meetings to receive input and comments from all interested participants. These meetings included public workshops to accept informal comments for each regional phase of the TMDL project, and public hearings for the formal public comment period.

The TMDL team used public outreach tools such as letters, focus sheets, and other printed materials; websites with short narratives and graphics, downloadable documents and relevant links; news releases and special news articles; and field visits.

Public Involvement Actions

- U.S. Environmental Protection Agency website
- Focus sheets
- News releases
- E water news – Washington State University Water Research Center newsletter article
- Monthly coordination team meetings – EPA, Idaho Department of Environmental Quality, Oregon Department of Environmental Quality, Washington State Department of Ecology, Western Governors Association, Columbia Basin Tribes, Columbia River Inter-Tribal Fish Commission (CRITFC)
- Monthly updates and discussions with the NMFS Water Quality Team
- Presentations to the NMFS Implementation Team
- Periodic meetings with Transboundary Gas Group
- Public workshop in Portland, OR – Nov. 28, 2000
- Columbia River Tribal TMDL workshop – Nov. 17 - 18, 2000
- Meeting with U.S. Army Corps of Engineers, U.S. Bureau of Reclamation, and Bonneville Power Administration – Jan. 30, 2001
- Meeting with Grant County Public Utility District – Feb. 2, 2001
- Meeting with Mid-Columbia Public Utility Districts – Feb. 14, 2001
- Meeting with Pulp & Paper Association – Feb. 27, 2001
- Meeting with East Columbia Irrigation District – March 9, 2001
- Meeting with Mid-Columbia Public Utility Districts – March 13, 2001
- Transboundary Gas Group – April 5, 2001
- Western Governors Association joins the Columbia/Snake TMDL Coordination Team – May 2001
- Public meetings in Spokane, WA and Portland, OR – July 23 - 24, 2001
- Presentations to Southwest Washington Watershed Planning Unit – Sept. 10, 13, 26, 2001
- Presentation to Lower Columbia River Fish Recovery Board – Sept. 12, 2001
- Washington Pulp & Paper – Sept. 14, 2001
- Presentations to CRITFC Tribal Water Quality Conference – Sept. 26 - 28, 2001
- Public meetings in Lewiston, Idaho and Pasco, WA – October 29 - 30, 2001
- Meetings with Spokane and Colville Tribes – Nov. 5 - 6, 2001
- Meetings with U.S. Army Corps of Engineers and U.S. Bureau of Reclamation – Nov. 5 & 15, 2001
- Meeting with CRITFC – Nov. 26, 2001
- Meeting with Washington Department of Fish and Wildlife – Dec. 11, 2001
- Meetings with Mid-Columbia Public Utility Districts – Dec. 18 - 20, 2001

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Appendix

**Response to Comments from the
Public Review Period,
February 18 – April 15, 2002**

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Introduction

The public review draft of the *Lower Columbia River Total Dissolved Gas TMDL* was released for public comment on February 18, 2002. A comment period of 45 days was established by public notice issued concurrently with the release of the draft TMDL. The notice scheduled four public hearings and a closing date for the receipt of written comments. A copy of the public notice is attached near the end of this appendix.

Public Hearings

Four public hearings were held:

1. Kennewick, WA.
Washington Department of Ecology Field Office
1315 W. Fourth Avenue

Monday, March 18, 2002
3:30 p.m. Question and Answer Session
4:00 p.m. Public Hearing
2. Pendleton, OR.
Tamastlikt Cultural Institute
72789 Highway 331

Tuesday, March 19, 2002
1:30 p.m. Question and Answer Session
2:00 p.m. Public Hearing
3. Portland, OR.
Oregon State Office Building
800 NE Oregon Street

Friday, March 22, 2002
8:30 a.m. Question and Answer Session
9:00 a.m. Public Hearing
4. Vancouver, WA.
Washington Department of Fish and Wildlife
2108 Grand Boulevard & Fourth Plain

Friday, March 22, 2002
1:00 p.m. Question and Answer Session
1:30 p.m. Public Hearing

No public testimony was offered at these hearings. Sign-in sheets for these four hearings are attached at the end of this appendix.

Written Comments

Written comments were received from the following:

- Steven Hays, Fish and Wildlife Consultant, Chelan County Public Utility District No. 1
- Alexandra B. Smith, Vice President Environment and Wildlife and Roy B. Fox, Manager Federal Hydro Projects, Department of Energy, Bonneville Power Administration
- Jannine Jennings, Watershed Restoration Unit, Office of Water, United States Environmental Protection Agency, Region X
- Liaqat Khan, ENSR International
- Mark J. Schneider, Water Quality Advisor, United States Department of Commerce, National Marine Fisheries Service
- Deirdre Marlarkey
- Gerald R. Bouck
- Stu McKenzie
- Candice J. Irish, Records Management Consultant, NSRI
- Michele DeHart, Fish Passage Center
- Don Sampson, Executive Director, Columbia Inter-Tribal Fish Commission
- Rick Emmert, United States Army Corps of Engineers¹
- Mike Schneider, United States Army Corps of Engineers²

¹ Comments received via e-mail on April 9, 2002.

² Comments received via e-mail on April 11, 2002.

Response to Comments

The following response to comments is organized under the same headings as are found in the draft TMDL. A general section for comments that are overarching precedes them.

General Comments

Comment: Ecology and Oregon DEQ Draft TMDL is Well Written and Technically Adequate. Chelan PUD wishes to compliment the authors for producing a TMDL document that is clearly written, understandable and technically complete. The TMDL document does well in laying out the regulatory and scientific basis for the load allocations, its explanation of the physical mechanisms producing TDG and the discussion of the dilemma of using spill to improve fish survival while attempting to meet water quality standards.

Response: This TMDL has been greatly strengthened by public input and technical and policy input from many people.

Comment: The Public Participation Process has been Thorough. Chelan PUD appreciates the efforts taken by Ecology, Oregon DEQ, and EPA to assure adequate public participation and participation by the regulated community, including the mid-Columbia PUDs. Chelan PUD has reviewed each of the three draft TMDLs and appreciated the time and opportunity given us to follow the development of this TMDL.

Response: Thank you.

Comment: NEPA/SEPA Analysis Is Appropriate Even If Not Required. The role of this TMDL as an action requiring NEPA/SEPA review is somewhat ambiguous in the document. The document states "in Oregon and Washington, a TMDL is a planning tool, not a rule of law or stand-alone enforceable document" (p. 4). However, in the same paragraph it states that "TMDLs may be used to condition exemptions, modifications, variances, permits, licenses, and certifications." The statements appear to be contradictory. While the TMDL itself may not initiate an action, Ecology and other agencies will certainly use it as justification for regulatory actions and may require that agency decisions regarding permits, certifications, licenses and other regulatory procedures conform to the allocations and implementation plans expressed within this TMDL. Given this level of importance, it would be appropriate to treat this TMDL as a significant rulemaking activity that should be reviewed in conformance with the requirements of the National Environmental Policy Act or Washington State Environmental Policy Act. The implementation plan, particularly for long-term compliance, could have significant environmental effects for both aquatic life and other environmental concerns. For example, major structural changes to the projects, such as raised stilling basins and tailraces, side channels, submerged spill and other major changes to the river bed or project structures, may be the only way that the current water quality standard of 110% TDG can be accomplished for involuntary spill at levels approaching the 7Q10 flows. The October 2001 Preliminary Draft TMDL noted that these measures would cost from \$100 million up to over \$1 billion, yet would still likely fail to meet the load allocation at 7Q10 flows. The U.S. Corps of Engineers DGAS Program also identified that a number of these potential options would pose risk of injury to fish. Certainly, the raised tailrace option would have impacts to habitat for sturgeon and other non-salmonid fish

in the Columbia River. While a NEPA/SEPA analysis may not technically be required for the TMDL, the delineation of environmental impacts that could result from measures taken to meet the 110% TDG standard would be an appropriate and responsible action for Ecology to undertake as part of the process for establishing the TMDL and implementation plan. Certainly, the environmental and social consequences of meeting the load allocations established in the TMDL should be reviewed prior to using the TMDL to “condition exemptions, modifications, variances, permits, licenses, and certifications”.

Response: The state environmental agencies do not take any environmental action or decision by preparing and submitting load allocations to the Environmental Protection Agency for their approval. The “exemptions, modifications, variances, permits, licenses, and certifications” that use the TMDL for input are the actions that could trigger NEPA/SEPA. Therefore no National or Washington State Environmental Procedures Act process is required or appropriate. (Oregon has no process analogous to NEPA or Washington’s SEPA.)

Comment: I have not been able to obtain a copy of the draft TMDL.

Response: A copy was sent, along with the URL for the website the same day.

Comment: A TMDL for total dissolved gas should not be adopted until research clarifies whether N₂ or total dissolved gas is a more accurate estimator of safe conditions for fish and aquatic life at low levels of saturation.

Response: A TMDL is required to be written in order to address an exceedance of a current water quality standard. Currently, the standard is specified as total dissolved gas. There is the opportunity to consider a standard change in conjunction with the States’ triennial standards review. The Implementation Plan appended to the TMDL provides for a review of the standard in the long-term actions. This would be an appropriate time to consider the efficacy of changing to N₂.

Comment: How does this TMDL promote the system Water Quality benefits associated with pollution trading? This document seems to be headed towards the preparation of a “TMDL TDG report card for individual projects”. How will system TDG abatement solutions that involve pollution trading fit into this TMDL formulation?

Response: Most pollution trading projects currently in place deal with the cumulative effects of nutrients in waterbodies such as lakes or rivers. The TDG problem is not a cumulative situation and requires a solution that does not allow TDG exceedances above the criteria at any location on the river outside of the mixing zone. (An assumption here is that the sources of TDG have implemented all technology-based requirements for TDG reduction.) Pollution trading does not directly apply due to the nature of TDG generation during spills. Typical spills supersaturate the water with gas then release the gas during travel through the aeration zone. The level of TDG in a parcel of water after passing through a spillway is independent of the level of TDG in the parcel prior to the spill. Each dam is responsible for the TDG effects during spill events at the dam.

In the Lower Columbia, planning to minimize adverse spills at the four dams will continue within the Corps. In future TDG TMDLs there may be situations where TDG is cumulative or where trading can occur as part of the interim implementation period. For example, trading may be able to occur between spill at one dam and power generation at another. These possibilities will be addressed at the appropriate time.

Comment: How will progress towards meeting TMDL objectives be determined? What metric will be used and over what time frame will this evaluation take place? Need to recognize the substantial effort that has already been implemented by CE at lower Columbia River project.

Response: Progress will be measured in two principal ways. The FMS monitoring network will be used to evaluate real-time data. As long as the FMS is reporting TDG levels above the standards, the TMDL objectives have not been achieved. But long term trends could be evaluated to determine progress towards the objectives. Second, as major structural modifications are implemented, near-field monitoring could be conducted under varying spill conditions to determine the effectiveness of TMDL implementation at the compliance location. It is likely that these studies will be performed after major work or at the end of each implementation phase.

List of Figures

No comments received.

List of Tables

No comments received.

Acronyms and Abbreviations

No comments received.

Abstract

Comment: Page vii, PH 1, line 5 – “The entire reach is considered impaired for TDG” What data are you using to say the TDG exceeds 110 percent of saturation to the mouth of the Columbia River? I know of none at the Columbia River mouth.

Response: The data used for the original listing is as follows:

- COE Data (1993);
- WA DOE 303(d) List;
- NMFS (1995);
- 1993 Dissolved Gas Monitoring for the Columbia and Snake Rivers (US Army Corp of Engineers, 1993);
- Fuhrer et al (USGS, 1995).

The Wauna Mill TDG station, at River Mile 42, was the farthest downstream monitoring station. Modeling using MASS1 only extended to River Mile 21. Results from both modeling and monitoring suggest that high gas levels extend downstream considerably farther. For example, during June 1996, when flows were just below 7Q10 flood levels, TDG averaged 125% at Camas and 118% at Wauna Mill. The average drop in gas levels was 7 percentage points in this 80 mile stretch. If gas continued to drop at the same rate, the river would still have been above

110% until the river plume mixed with ocean water. Thus, it is reasonable to infer that impairment of the TDG standards occurs over the entire reach, as stated.

Comment: Page vii, PH 2, line 1 and 2 – “Elevated TDG levels are caused by spill events at four hydroelectric projects on the Lower Columbia River” This suggests that water from the Mid Columbia and Snake Rivers do not exceed 110 percent of saturation? I suggest a reference to the data that shows the high values or alter the wording in this sentence.

Response: The geographic scope of this TMDL is the Columbia River mainstem from the confluence of the Snake River to the mouth of the Columbia River. In this stretch of river, elevated levels of total dissolved gas occur as a result of spill at the lower four hydroelectric projects. However, elevated levels of dissolved gas do arrive at the boundary of this TMDL from both the mid-Columbia River and the lower Snake River. Upstream effects are included in the TMDL as an allocation at the upstream boundary. The sources of upstream TDG will be addressed in separate TMDLs. Wording to clarify this has been added.

Comment: Page vii, PH 2, line 2 – “Water plunging from a spill entrains *air that results in* TDG ...” I do not think the spill entrains TDG.

Response: The suggested amendment has been incorporated.

Comment: Page vii – Abstract “Load allocations are also expressed in terms of excess pressure as referenced to the local barometric pressure, with allocations for each dam,”

Response: The suggested amendment has been incorporated.

Comment: Page vii – Abstract “Other allocations must be met in the forebays of the dams.” This statement is listed in the abstract but I don’t think it is well developed in the following document. If the intent of the TMDL is to comply with the federal WQ standard for TDG of 110% at “any point of measure” then why specify that allocations must be met in the forebays of the dams. It may be more appropriate to recognize that the TDG maximums during the spill season in the Lower Columbia River are most often located within spill waters of main-stem dams and because of this fact should be considered as the limiting point of compliance.

Response: This sentence has been changed to read, “The upstream allocation must be met in the pool above McNary dam.” In Phase 2 of implementation, the standard of 110% total dissolved gas must be met below the aerated zone at each dam and in the pools and forebays. In the short term, the higher gas level “waiver standards” in the forebays of each dam have been established in response to needs of Endangered Species Act protected fish. Structural and operational modifications create the ability to create greater masses of gassed water when spilling for juvenile salmon migration. This often causes forebay waiver standards to be exceeded prior to standards at the fixed monitoring stations in the tailraces.

Comment: Page vii, Paragraph 2, Line 3 “gas bubble trauma” in fish which
delete: which causes chronic or acutely lethal effects insert: which generally results in chronic gas bubble lesions or may lead to acute mortality

Response: This line has been edited to change “cause” to “can cause”. Very high gas levels can be more or less instantly lethal. We agree that gas bubbles can also impair fish health and behavior at lower levels which may lead to death.

Acknowledgements

No comments received.

Executive Summary

Comment: Page ix, PH 1, line 5 – “The entire reach is considered impaired for TDG.” Same as the first comment.

Response: The data used for the total dissolved gas 303(d) listings are cited above. Analysis of the data supports this statement.

Comment: Page ix, PH 2, line 1 and 2 – “Elevated TG (sic) levels are caused by spill events at four hydroelectric projects on the Lower Columbia River.” This suggests that spills on the Snake River dams and Mid Columbia River dams are not contributing. Is this what you are meaning to say?

Response: See the response above. For the geographic extent of this TMDL the events leading to elevated levels of total dissolved gas are spills at the lower four hydroelectric projects. Elevated total dissolved gas levels arrive at the McNary forebay from the Snake and mid-Columbia Rivers. Upstream effects are included in the TMDL as an allocation at the upstream boundary. The sources of upstream TDG will be addressed in separate TMDLs. The language has been edited to clarify this.

Comment: Page x. Description of the Applicable Water Quality Standards and Numeric Target, “However, the implementation plan allows compliance with waiver limits as an interim allowance for compliance with the TMDL in the short-term.” This sentence should specify the time period, such as ten years.

Response: The time period has been specified in the Implementation Plan. However, we have also amended the language in the Executive Summary.

Comment: Page x. A general objectives regarding the proposed point of compliance should be presented.

Response: The general objectives have been included in the main report, and the Executive Summary also mentions the compliance location.

Comment: Page x. Loading Capacity. A scientific description of why 75 mm was selected as a loading capacity should be described.

Response: An abbreviated description of this has been included, as appropriate for the Executive Summary.

Comment: Page x. Pollutant Allocations. Long-term compliance with load allocations for dam spills will be at the downstream end of the aerated zone below each spillway. There will have to be representativeness issues addressed and cross-sectional characterization done at each downstream site. How much of a factor will fish passage considerations in the aerated zone play in the determination of water quality standards compliance?

Response: The long-term compliance location will have to be the most accurately representative place or places below the aerated zone of each dam. Safety of monitoring, hydraulics, representativeness of spill water, and cross sectional characteristics will be taken into consideration. These issues can be addressed specifically in a TMDL effectiveness monitoring plan. Fish passage considerations in the aerated zones will not be taken into account. Fish passage considerations will be taken into account by evaluating TDG levels at the existing fixed monitoring sites in comparison to levels at the long-term compliance locations below the aerated zones, based on alternative fish passage successes.

Comment: Page x, Paragraph 51, Line 2 downstream end of the aerated zone below each spillway delete: each insert italics: downstream end of the aerated zone below *the spillway at spill levels equivalent to flows in excess of powerhouse hydraulic capacity at the 7Q10 flow level.*

Response: Highest regulated flows, such as flows close to 7Q10 flows, would move the compliance location far downriver. During non-7Q10 spills the area between the dam and the compliance location might be excessively large, and there might be the potential for turbine water to influence the gas measurements. Also, no data exists that defines the location of end of the aeration zone at 7Q10 flood flows. By the logic employed in the TMDL, the compliance location might move up and down stream with the end of the aeration zone, but this would be very difficult to use in a regulatory setting. The compliance locations in the TMDL are based on existing data from controlled spill studies, and that is the best data we have to work with. The compliance locations will take into account the cross-section, representativeness of gas-producing spill flows, and distance downstream from the dams. Also, since the implementation plan provides many years before the compliance locations come into effect, this allows time to evaluate alternative approaches and collect the data needed to apply them.

Comment: Page x – “Short-term compliance will be established under the implementation plan and will be based on operational management of spill.” The ongoing fast-track DGAS program involved additional spillway flow deflectors as a means of reducing the TDG exchange associated with spillway discharges.

Response: This comment has been incorporated.

Comment: What is the rationale for not requiring the specific dams, as identified in the Draft Report, to have NPDES permits? As discussed later in the TMDL, there are only four points of total dissolved gas of concern in the Lower Columbia- Bonneville Dam, The Dalles Dam, John Day Dam, and McNary Dam. Since these are the known sources of total dissolved gas (TDG) why does the TMDL or the water quality agencies not require a NPDES-permit? If a NPDES permit is not required for exceedences of total dissolved gas at the dams, then we do not understand why a temporary TDG waiver for total dissolved gas is required from the Corps to implement the yearly fish spill program. The final Report should explain this inconsistency.

Response: The Courts have determined the characterization of dams as point sources for which NPDES permits will not be issued for certain parameters. The current policies of the States of Washington and Oregon are to not issue NPDES permits for TDG. Language has been added to this effect.

Comment: page xi -- It looks like year-round TMDL load allocation is year round. We anticipate that current year round monitoring at Warrendale, Bonneville and McNary is adequate.

Response: We agree.

Comment: Page xi, PH 1, line 4 and 5 – “Due to extensive data collection in the TMDL area, the margin of safety for data variability is small.” This suggests those large amounts of data mean that variability is small. I would suggest that the variability could still be large, but the uncertainty may be small.

Response: Amended wording has been inserted to clarify this.

Comment: Page xi – “The margin of safety is supplied implicitly by use of conservative critical conditions.” Is this the appropriate use of the term critical conditions? Would the usage of compliance threshold conditions be more appropriate in this connotation. The following citation was taken from *Water Quality Standards for Surface Waters of the State of Washington*. "Critical condition" is when the physical, chemical, and biological characteristics of the receiving water environment interact with the effluent to produce the greatest potential adverse impact on aquatic biota and existing or characteristic water uses. For steady-state discharges to riverine systems the critical condition may be assumed to be equal to the 7Q10 flow event unless determined otherwise by the department.

Response: “Conservative assumptions” is a better term, and has been included here. Nonetheless, the definition of critical conditions still apply since temperature, wind, barometric pressure, spill volumes, and total river flow are characteristics that can interact to produce greater impacts. The key term in the citation is “unless determined otherwise by the department”. In this situation we have determined otherwise.

Comment: Page xi. Margin of Safety. Is the margin of safety supplied by the TDG criterion too conservative?

Response: This is not an issue to be addressed in a TMDL. However, in the long-term phase of the Implementation Plan we have indicated that this could be an issue that could be addressed. Also, the apparent stringency of the standards is identified as a source of a Margin of Safety in the Report.

Comment: Page xi. Monitoring Plan. If monitoring of implementation and operational controls in the short term will be accomplished using the fixed monitoring sites, why can't the fixed monitoring sites be used in the long-term instead of using the downstream end of the aerated zone?

Response: The fixed monitoring sites have been established for a variety of reasons, not the least of which is accessibility. Some of them have not been sited in order to monitor a representative site in the river. We believe the edge of the aerated zone provides the most consistent and reliable site at which to measure representative total dissolved gas after it has had a chance to attenuate.

Comment: Page xi – Monitoring Plan - Does this section imply that continuous monitoring will not be needed for the evaluation of long term compliance load allocations?

Response: No, continuous monitoring will still be useful, especially when good relationships can be established between continuous monitoring data and TDG levels at the compliance locations. The language has been edited to reflect this.

Comment: Page xi, Executive Summary – The first sentence under Implementation Plan should read: “...analyzed by the National Marine Fisheries Service in the Biological Opinion and the U.S. Army Corps...”

Response: The sentence has been amended to incorporate this.

Comment: Page xi. Reasonable Assurance. I believe that the statement: “The track record for Congressional funding for these projects is good, and there is reason to believe that further funding of projects will continue.” is too general. For instance, funding for Chief Joseph TDG work in FY 02 was not successfully obtained.

Response: The failure of one project to be funded does not negate the generally good funding for work to attenuate total dissolved gas levels. Flow deflectors at Ice Harbor and at John Day, along with other projects have all been successfully funded.

Comment: The monitoring plan is divided into short-term and long-term compliance and the relationship of and timeline for these periods should be described here as well as in the implementation plan.

Response: This wording has been inserted.

Comment: The TMDL discusses the ability of funding for structural projects required to reduce total dissolved gas production from the dams. While there has been past funding available for these types of projects, future funding is less certain. In 2002, the Columbia River Fish Mitigation Program (CRFMP), is not being funded by Congress to the level necessary to meet all of the reasonable and prudent requirements outlined in the 2000 Biological Opinion. Due to budgetary constraints, the Corps and NMFS are prioritizing projects to reduce dissolved gas levels below the current temporary waiver levels lower than 1) projects that address direct survival for ESA-listed species as well as 2) projects that will attempt to identify future management decisions to promote the best operations in the Columbia for fish passage. Further, there is a possibility that BPA may, in the future, assume full responsibility for funding the CRFMP, and whether or not funding for CWA structural measures for total dissolved gas will be prioritized is uncertain.

While CRITFC has strongly recommended that CRFMP projects which address meeting long-term CWA standards for total dissolved gas and temperature be given priority over other CRFMP projects, the federal hydro operating agencies, including the Corps, have largely disregarded these recommendations. CRITFC has also requested that EPA and the state water quality agencies use their authorities to assure that priority be given to these actions, but the water quality agencies have not consistently responded to these requests. It is vital that the final Report clearly outline to the federal agencies that funding of structural measures to meet CWA standards be given priority status, and that the mechanism to force compliance with these actions is definitive.

Response: No Executive Branch action can force a legislative body to appropriate money. We have indicated to the action agencies that we expect that they will vigorously pursue funding, and are looking at ways to give weight to this message so that the likelihood of funding is improved. However, there is no “mechanism to force compliance” available.

Introduction

Comment: The Draft Report identifies that high levels of total dissolved gas have deleterious effects on fish and other aquatic life. This statement should be quantified and qualified. Significant exposure to high levels of total dissolved gas can impact fish *if they cannot achieve depth compensation*.

Response: Certainly elevated total dissolved gas levels have a deleterious effect on fish if they cannot achieve depth compensation. However, even if depth is available, it is not clear that fish take advantage of it. This is only the introductory statement of the TMDL. Greater detail of the effects of elevated total dissolved gas on fish is contained in the body of the document.

Purpose of, and Authority for, TMDL

Compliance with Clean Water Act

Comment: While these TMDLs have been presented in a single document, the Washington Department of Ecology should issue the TMDLs for waters of Washington State and the Oregon Department of Environmental Quality (ODEQ) should issue the TMDLs for waters of the State of Oregon. This should be indicated in the letter accompanying submittal to EPA.

Response: We will ensure that this is done.

Comment: Page 3. Compliance with Clean Water Act. There should be a discussion about the purpose for regulating the TDG standard is for the protection of aquatic life.

Response: This point was covered on page 15 of the draft. A reference to aquatic life has been included here in the final TMDL.

Comment: Page 3, PH 1, line 3 – “confluence of the Snake [and Columbia] River [s] to its mouth.” My preference of wording.

Response: Wording is difficult here. The clumsiness in the draft was to recognize that we are talking about the length of the Columbia River mainstem from the inflow of the Snake River to the mouth (of the Columbia River). The difficulty with alternative wording is that it can convey the impression that the mouth refers to that of the Snake River.

Comment: Page 3, PH 1, line 3 and 4 – “This entire reach of the river is out of compliance...” Same as first comment.

Response: Same as response to similar comments above.

Coordination with Endangered Species Act

Comment: The Draft Report raises serious conflicts between meeting the provisions of the Clean Water Act (CWA), meeting the requirements of the Endangered Species Act and meeting legal obligations to the treaty tribes, which are not described, nor are means to resolve the conflicts offered.

Response: The draft TMDL takes great care to explain the potential conflicts between the provisions of the Clean Water Act and the Endangered Species Act. The National Marine Fisheries Service and the U.S. Fish and Wildlife Service were intimately involved in designing the Implementation component of the TMDL expressly to avoid these conflicts. The fact that there is an entire section dedicated to the Endangered Species Act in a TMDL required under the Clean Water Act. Means to resolve potential conflicts are offered in the implementation plan through the phased approach.

Comment: We have concerns that the Draft Report fails to reconcile meeting the needs of tribal treaty obligations, ESA requirements and full protection of the beneficial use, i.e., anadromous fish passage, under the Clean Water Act. It is critical that this is fully addressed in the Final Report.

Response: The draft TMDL expressly seeks to reconcile actions under both acts. This issue is well covered the final report.

Comment: Fish passage and the survival and productivity of salmon and other anadromous fish populations must not suffer by taking measures to control total dissolved gas. These conflicts should be identified and fully described in the main portion of the Final Report. How the TMDL meets treaty obligations, the CWA and the ESA must be identified and fully described in the Final Report.

Response: The water quality agencies are well aware of the potential conflicts between protecting water quality and impeding fish passage. That is why we have gone to great lengths in the TMDL to describe the potential conflicts and to construct an implementation plan in a phased way so that these potential conflicts can be avoided. Protection of fish through total dissolved gas levels at standards and survival targets as defined in the 2000 Biological Opinion is the appropriate outcome of this exercise.

Comment: It is not enough that the TMDL be written to reflect achievement of biological performance standards for the NMFS' 2000 Biological Opinion. As noted by CRITFC (CRITFC 2000), these standards are inadequate to recovery salmon populations to healthy, harvestable levels described in the *Spirit of the Salmon*. For example, as opposed to the Opinion juvenile survival standard of 95% per dam, the *Spirit of the Salmon* recommends a short term fish passage efficiency standard of 80% and a long-term fish passage efficiency standard of 90%. These higher standards, combined with increased, normative flow regimes recommended by the tribes, will require more spill volumes over longer periods at the Lower Columbia Dams. Therefore, the final TMDL must be written to reflect actions that will meet these higher productivity levels by identifying and accomplishing higher standards of protecting the beneficial use. It would be very helpful to identify these short term and long- term compliance goals in the main body of the Final TMDL Report and not solely in the implementation plan.

Response: We are unable to address the perceived deficiencies of a federally constructed biological opinion in the TMDL under the Clean Water Act. There is no action in the implementation plan that is inconsistent with the 2000 biological opinion. Great care was taken to work closely with the National Marine Fisheries Service and the U.S. Fish and Wildlife Service to craft an implementation plan that achieved the requirements of the Clean Water Act while not detracting from the provisions of the 2000 biological opinion or the Endangered Species Act. Implementation provisions being incorporated into the body of the TMDL is neither appropriate nor legal. A TMDL is a quantitative evaluation of loading capacity and an

allocation of loads. Implementation is completely separate from that. The former is an action requiring federal EPA approval; the latter is purely a State action.

Comment: It is our understanding that the implementation plan is not a legally defensible document but the TMDL is. Staff is concerned with potential legal ramifications that the TMDL poses as currently written. Language needs to be added to the main body of the TMDL to address the potential conflicts between the needs of the CWA and the needs of the 2000 Biological Opinion to meet the requirements under ESA.

Response: We are unable to alleviate your potential legal concerns with the TMDL. Language already appears in the body of the TMDL addressing the potential conflicts between the Clean Water Act and the Endangered Species Act, and great care has been taken throughout to avoid these potential conflicts.

Comment: On Page 4 of the Draft Report the TMDL is referred to as a, “[p]lanning tool, not a rule of law or other stand-alone enforceable document.” Further the Draft Report states that it does not take precedence over the federal Endangered Species Act, Indian Treaties, or federal hydropower system enabling legislation. The action of reducing spill to meet the TMDL is in direct conflict with the 2000 Biological Opinion spill program, the CRITFC tribes’ spill program described in the *Spirit of the Salmon* restoration plan and the Northwest Power Planning Council’s 1994 *Strategy for Salmon* restoration plan. These spill programs have been identified as critical components of salmon recovery. The implementation plan outlines how the TMDL is to be achieved, and attempts to reduce the conflict between current ESA operations and the need to meet CWA in the short term.

Response: The State water quality agencies have fully supported the spill program for fish passage over the last eight years. There is nothing in this TMDL that detracts from that support. The major focus of the short-term phase of the implementation plan is on involuntary spill. We have, however, indicated that decreased reliance on fish passage spill will also be a feature of the short-term, but only in conformance with achievement of the survival standards detailed in the 2000 biological opinion.

Comment: As previously stated, the relationship between meeting CWA, ESA and tribal treaty responsibilities and protection of the beneficial use needs to be clearly defined in this section.

Response: On page five we make it clear that the provisions of both the Clean Water Act and the Endangered Species Act must be met.

Comment: Page 5. Coordination with Endangered Species Act. “In summary, the provisions of both Acts must be met.” As part of this discussion about meeting both the Clean Water Act and Endangered Species Act, there should be a discussion of how each of the state water quality agencies has made regulatory decisions to selectively favor anadromous fish over resident fish in order to avoid the anadromous fish from becoming threatened or endangered. It should be shown how long-term gassing of the river to save salmon and exposing resident fish to long-term levels of TDG balances “the protection of aquatic life.”

Response: Both states have relied on the National Marine Fisheries Service analysis of impacts versus benefits of spill to resident and anadromous fish to modify respective dissolved gas standards. These modifications have been temporary: yearly for Oregon and to be reviewed in 2003 for Washington. The temporary nature of these modifications reflects the need to better

understand the impacts to resident fish which are in the river the entire year. The temporarily elevated gas levels are designed to protect priority species—anadromous fish which are not in the river the entire spill season but are passing through as migrants. Before more permanent standards can be adopted for the Columbia River, studies will have to show minimal impacts on the ability of resident and non-salmonid migratory species to survive in a river with higher gas levels. Language to this effect has been added to the TMDL.

Comment: “Therefore, in the short-term, structural gas abatement solutions may result in higher spills rather than lower TDG levels.” The structural measures designed to reduce the TDG exchange in spill have resulted in higher volumes of voluntary spill (increased spill capacities at TDG waiver limits) and increased loading of TDG in the Columbia River.

Response: Agree. The structural and operational improvements allow for more water to be spilled before the gas cap is reached. This increases the mass of gassed water but only up to the gas standard. On the other hand, structural and operational improvements at the dams can, up to a point that varies for each dam, keep gas levels lower during spills that occur for lack of power demand or ability to transmit, lack of hydraulic capacity, or other reasons.

Comment: “But as new, more effective fish passage facilities are completed and evaluated, their contribution to the attainment of hydrosystem performance standards will hopefully allow spill levels for fish passage and associated TDG levels to be reduced, but only as long as the performance standards are met.” This statement seems to suggest that spill maybe a long term alternative required to meet fish guidance performance standards that supercedes the requirements set out in the CWA and is at odds with the statement “This TMDL must be written to reflect ultimate attainment of the TDG water quality standard.”

Response: This statement is an acknowledgement that some form of spill may continue to occur in order to meet fish passage requirements of the Bi-Op. The TMDL has to be written with the goal to achieve water quality standards. There is no conflict with CWA requirements so long as the water quality standards are met or there continues to be reasonable progress toward meeting the water quality standard. The TMDL will have to be implemented to best protect the beneficial uses, including endangered salmon. Coordination with anadromous fish concerns is vital toward achieving the ultimate goal of the Clean Water Act which is to have fishable and swimmable waters. If further study shows that resident populations of aquatic organisms are being protected at the higher gas levels that are temporarily approved for juvenile fish passage, higher gas levels may be appropriate for at least portions of this river. This would have to be written into the water quality standards which is outside the scope of the TMDL.

Comment: “The results suggest that, in weighing the benefits gained in increased salmon survival...”. The finding regarding the benefits of spill on guidance of juvenile and adult fish at Lower Columbia projects has been mixed. Efforts to substantiate the benefits of spill on guidance of salmonids will play a substantial role in spill management planning.

Response: We agree. Although spill plays the major role in bypassing turbines, entrainment into spillways varies at each dam. Many other factors also play a role in fish survival through each dam.

Comment: Other than sluiceway/surface bypass development, no other fish passage technologies are apparent for the short or long-term. Even these technologies require attendant spill to move salmon to the systems and to provide good tailrace egress conditions for juveniles to avoid predators. Permitting increased levels of total dissolved gas in the Columbia River in order to implement spill at the Corps dams will better protect the salmon beneficial use than forcing them through turbines and screened bypass systems (Strong 1998; CRITFC 2000a; CRITFC 2000b). Juvenile salmon mortality through turbines has been estimated between 4% and 19% (Whitney et al. 1997; Gilbreath et al. 1993). Adult salmon mortality through turbines has been estimated from 22% -51% (Wagner and Ingram 1973; Buchanan and Moring 1986; Liscom and Sturehrenberg 1985). Recent radio-telemetry studies for steelhead kelts have indicated that no kelts survived downstream passage during non-spill periods (Evans, 2002 personal comm.). Juvenile and adult salmon that are subjected to screen system passage are exposed to and held at temperatures that are significantly warmer than that found in the ambient river (Hoffarth 2000). Temperatures in bypass systems have been found to exceed water quality standards for much of the summer salmon migration (WDFW and ODFW 2000). Further, recent studies indicate that juvenile salmon that must pass through screen bypass systems have a significantly lower smolt-to-adult return rate than juvenile salmon that pass primarily through spill (Bouwes et al. 2002).

Spill will always be required at mainstem dams for fish passage, although sluiceways and surface bypass development may increase fish passage efficiency, therefore reducing some spill levels. Whether or not these levels will meet CWA standards remains uncertain. What is certain is that involuntary spills will continue, and gas abatement structures that are fish passage friendly must be expedited to reduce dissolved gas generated from dams.

The Draft Report discusses TDG monitoring from 1995 – 1996. There has been considerable in-river monitoring since then which should be incorporated in the Final Report. This includes dam monitoring by the Fish Passage Center (FPC 1997-2001), and monitoring contained in scientific reviews by the NWPPC's Independent Scientific Advisory Board's evaluation of gas abatement (ISAB 98-8 *Review of the U.S. Army Corps of Engineers Dissolved Gas Abatement Program*). These reviews found that dissolved gas levels of 120% TGP were conservative and not harmful to salmon in the river. Further, analysis of three years of research from in-river juvenile salmon sampling in the Columbia River indicates that very low incidences of GBT were found in juvenile salmon that were exposed to dissolved gas levels up to 125% saturation (Backman et al. 2000). Specifically, Backman et al. (2001) found no statistically significant relation between total dissolved gas and gas bubble trauma for chinook salmon. Most gas bubble trauma symptoms were minor (>5% fin occlusion) with severe bubbles (>26% fin occlusion) being observed only when total dissolved gas exceeded 126%. Chinook salmon were rarely observed with gas bubble trauma, despite sampling large numbers when total dissolved gas exceeded 130% saturation (Backman et al. 2001). Based upon this information, CRITFC continues to support a 125% total dissolved gas standard in the Lower Columbia River for the short-term to be modified as gas abatement structures are added to dams. The state water quality agencies should immediately pursue a review of the existing 110% TGP standard and the 115%-120% temporary waiver as they relate to protecting fish passage and the beneficial use under the CWA.

Response: The provision to review the water quality standard for total dissolved gas is already contained in the long-term phase of implementation. The water quality agencies are currently

fully committed with reviews of other water quality standards. We always welcome suggestions for standards that are in need of review. Inevitably, the number of standards suggested exceeds our resources at any given time. We also encourage other parties to undertake a full scientific review and submit it to us. The Environmental Protection Agency can provide the process and methodology for such a standards review.

Comment: The final Report should find a means of compliance with the CWA, the ESA and treaty obligations.

Response: This is already fully covered in this section and in the implementation plan.

Geographic Extent

Comment: Page 7, PH 3, line 2 – “All of these waters have been identified as impaired and have been included on Oregon’s 1998 303(d) list.” The fact that a site within each of the reaches has been identified with concentrations greater than 110 percent of saturation does not mean that the entire river within the seven reaches is exceeding the standard. Suggest you try some different wording.

Response: Data shows that plumes of supersaturated water persist for many miles downstream of a project. Elevated levels of total dissolved gas generated at a project show up as elevated levels in the forebay of the next downstream dam. For the geographic extent of this TMDL the river is impaired along its length. Impairment of the reach(es) below Bonneville Dam has been discussed in an earlier response.

Total Dissolved Gas Water Quality Standards

Comment: The Water Quality Standard and TMDL Should be Based on the Greatest Net Ecological Benefit to Support Aquatic Life. The current TDG water quality criterion of 110% is based largely on laboratory studies where fish were held in shallow water and exposed to elevated levels of TDG in relation to the atmospheric pressure. Most aquatic life in the Columbia River does not typically inhabit the upper 3 feet of the river’s depth. The water quality standard and the TMDL should be established to provide the greatest net ecological benefit to support the designated uses. Because TDG is a dynamic, natural process, the goal of the TMDL should be as established for thermal TMDLs, a total maximum daily load that “will assure protection and propagation of a balanced, indigenous population of shellfish, fish and wildlife” (40 CFR 130.7(c)(2)). The use of spill to improve survival of migratory anadromous salmonids, especially for ESA listed species, should be given equal weight to meeting water quality criteria that are set with a conservative margin of safety, as is the 110% TDG criterion. The salmonids, resident fish species, benthic organisms, and other aquatic life forms in the Columbia River all spend most of their time at water depths where TDG saturation levels are less than 100% relative to the ambient hydrostatic pressure, even though the TDG pressure exceeds 110% relative to the atmospheric pressure at the water’s surface. As stated in the Draft TMDL (page 69), biological monitoring to assess gas bubble trauma to fish has shown little trauma to migrating juvenile salmon at TDG levels of 120% (modified water quality standards). This TMDL should provide equal consideration to developing the data to support a permanent, site-specific criteria for TDG

for the Columbia River that supports the designated uses to achieve the greatest net ecological benefit.

Response: Total maximum daily loads present recommended allocations that are implemented through other mechanisms. They are not a rule making activity. Setting new rules for adjusted water quality standards to take into account site-specific needs on the Columbia are beyond the scope of this TMDL. Data needs toward a site-specific gas standard on the Columbia will happen outside the scope of this TMDL. The provision to review the water quality standard for total dissolved gas is already contained in the long-term phase of implementation.

Comment: The state water quality agencies must commit to an effort to review the adequacy of the existing total dissolved gas standard for the mainstem Columbia River with respect to protecting the beneficial use, and this effort should parallel implementation plan efforts.

Response: This has been provided for in the long-term phase of implementation. However, a change in water quality standards is a different exercise than a TMDL.

State of Oregon Standards

No comments received.

State of Washington Standards

Comment: Page 10. State of Washington Standards. "TMDLs must by law ensure compliance with the existing permanent standards. There are separate processes to revise the water quality standards and establish new criteria. If the TDG standards are ever revised in a way that affects this TMDL, then the TMDL would need to be revised and modified at that time." Over the past six years there has been a tremendous amount of data and information showing the Gas Bubble Disease in anadromous fish is not a serious issue above 110%. Is there a public policy issue that needs to be resolved by the states and the National Marine Fishery Service's Biological Opinion determination that 120% is needed to pass fish over the dams and the standard of 110%? Since ESA actions to avoid anadromous fish from becoming threatened or endangered use TDG standards exceedances as fundamental components of a recovery plan, the state standard should be revisited before developing a TMDL?

Response: This is not a public policy issue. National Marine Fisheries Service, U.S. Fish & Wildlife Service and the state fisheries agencies are in agreement that before a permanent standard can be adopted, an analysis of existing literature, some lab studies (such as sensitivity of lampreys), and habitat inventories need to be undertaken to assess the potential impacts to resident species. However, federal rules and court decisions have been clear that TMDLs must proceed in a timely fashion based on existing rules. The phased approach used in the implementation plan allows time for changes in the rules to occur.

Comment: Page 10 - what is the technical definition of tailrace? None of Portland's instruments are in the tailrace or in the area immediately below the bubble zone as mentioned later in the TMDL as the site of compliance.

Response: The "definition" of tailrace for the purposes of the short-term compliance locations was created for the existing fixed monitoring station system under the ESA forums. These

stations may or may not be measuring pure spill water due to turbine mixing and variations in the spill pattern and flow. Monitoring in the tailrace for long-term TMDL compliance will most likely focus on intensive synoptic near-field studies. Any changes in "tailrace" monitoring stations in the long-term will be defined using a combination of criteria and information. These will include hydraulics, lateral and longitudinal variability of TDG at varying flows, and identification of aerated zones. Existing tailrace FMS stations might be adequate for long-term compliance monitoring if good relationships can be determined between those sites and near-field gas levels at the compliance locations.

Comment: "If the TDG standards are ever revised in a way that affects this TMDL, then the TMDL would need to be revisited and modified at that time." The pollutant TDG is ill suited for being handled in a TMDL planning process. The loading capacity as defined in this document as a pressure difference is clearly not a mass loading. The outlined approach does not distinguish between a single spill bay releasing 3 kcfs and generating a TDG saturation of 114% and 20 bays uniformly discharging 60 kcfs at 114%. The conditions resulting in exceedance of TDG standards will be dependent only on the operations at a specific dam and independent of dam operations upstream.

Response: The existing standard is a measurement of a single point and does not usually directly reflect mass loading. The effect of this TMDL is that standards are to be measured to show operational gas inputs at each dam independent of upstream conditions. However, flow levels from upstream operations often directly affect amount of water that is spilled and therefore gas measurements are tied indirectly to upstream dam operations.

Basin Assessment

No comments received.

Spill for Fish Passage

Comment: The bottom line for the treaty tribes is protection of the beneficial use, i.e. salmon and other anadromous fish passage through the Federal Columbia River Hydrosystem. Based on numerous biological studies, many of which the Draft Report fails to discuss, we have serious concerns that the existing standard of 110% TGP and the existing variances of 120% TGP in the dam tailraces and 115% TGP in the downstream dam forebays limits protection of the beneficial use. The federal government should do everything possible to meet their obligations under the CWA, but not at the expense of the beneficial use that the CWA is supposed to be protecting.

Response: Anadromous fish passage is one of a number of beneficial uses to be protected on the Columbia River. The criterion of 110 percent of saturation is designed to protect salmonid and resident fish species. A standard change is a different exercise. We have provided for this in the implementation component of the TMDL in the long-term.

Comment: The study finding from recent studies should be referenced in this section (The Dalles Dam for instance).

Response: This section is not intended to provide an exhaustive or up-to-date literature review. The references illustrate the purposes of fish spill. However, language has been added to mention that studies and research are ongoing.

Comment: Page 12, first paragraph under Spill for Fish Passage – Omit “...or fish bypass facilities” in the first sentence. Bypasses discharge a tiny amount of water compared to spill and water is discharged through turbines for power generation purposes, not for fish passage.

Response: The purpose of this section is to differentiate water spilled over the spillway rather than its passage via other routes. While the quantity of water flowing through the fish bypass system is small, it has historically been differentiated from spillway water for fish passage purposes.

Involuntary Spill

Comment: Water management plans are structured to minimize the occurrence of flood flows in the Lower Columbia River. The amount of storage in the basin is limited with river flows frequently exceeding the powerhouse capacity of Lower Columbia River dams. The need to safely discharge flood flow events through a spillway is a fundamental feature of dams and required to maintain designated beneficial uses of the Columbia River.

Response: This, of course, is true but doesn't contradict the requirement for structures in the river to meet the federal Clean Water Act. The challenge is to find ways for the Corps to meet water quality standards for all types of spills up the seven-day in ten-year flood flow, through planning and implementing projects such as gas abatement structures or increased powerhouse capacity.

Deviation of Ambient Conditions from Water Quality Standards

TDG Generation from Spills

Comment: Page 15 – “The excursions beyond this level usually have been no more than one or two percent above the variance request and occur as a result of the imprecision in setting spillway gates.” The spill gate settings are automated for the most part and actuation of gate opening are highly repeatable. The excursions above the TDG variance are due to the variability in the TDG exchange process, measurement, and barometric pressure.

Response: It would be more correct to say that excursions are due to the imprecision in reproducing exact TDG levels at specific spillway gate set points due to all the sources of TDG variability described. This passage has been revised.

Comment: Page 16 - “In the pools, gas exchange rates are small to negligible except under high wind conditions If conditions are still and TDG concentrations are constant, the percent saturation of TDG can increase if the water temperature increases...” The likelihood of temperature increases resulting in TDG pressure maximums removed from the tailwater channel region are overstated in this document during the spill season. The reduction in TDG pressures

during transport through a pool by air/water interface exchange and mixing between spill and powerhouse flow will result in declining TDG pressures for nearly all situations

Response: To evaluate this and similar comments, temperature increases were compared to wind speeds (The Dalles pool was chosen for this analysis). The analysis indicates that in this reach of the Columbia River, under most conditions the degassing produced by wind offsets the increase in TDG from a water temperature increase. The frequency of low wind speed periods concurrent with water temperature increases is very small at this location. Therefore the allocations for temperature increases have been removed from this TMDL, and the entire allocation for each reach will be placed on the spills and the upstream boundary. It's important to note that future TDG TMDLs may include an allocation for the downstream water temperature increase, depending the results of the analysis for that area.

Comment: "The rest of the powerhouse flow mixes slowly with the spillway flows.". This generalization does not apply to the conditions below The Dalles Dam or to the open channel flow conditions below Bonneville Dam.

Response: This has been edited to avoid over-generalization.

TDG Impacts on Aquatic Life

Comment: Page 17. TDG Impacts on Aquatic Life. "A review of the standards to look at adoption of different criteria, duration, frequency and spatial application, if appropriate, would occur through a completely different process." Same Comment as #9 (Is the margin of safety supplied by the TDG criterion too conservative?).

Response: See earlier responses on this subject. The discussion of Margin of Safety identifies the stringency of the standards as a source of MOS.

Comment: The information provided about total dissolved gas and different levels of total dissolved gas impacts are all derived from laboratory work, which does not adequately represent natural systems. Laboratory studies are very conservative because fish cannot achieve depth compensations. Only data acquired from river studies, as noted above, should be incorporated into the final Report.

It is not clear to us what the water quality agencies' criterion were for developing the two levels of compliance- one hour maximum and the average highest 12 hours? With the current amount of data it seems prudent to determine if these limits are still appropriate. The chronic and acute levels outlined in the waivers should also be further reviewed to determine if the levels are adequate or overly conservative. Restraints from the existing 110% TGP and 115%-120% temporary TGP standards are the major constraints to meeting juvenile passage goals to protect the beneficial use. These levels need to be reviewed as a key component of any short or long-term implementation plan. A review of the acute and chronic levels to determine if more flexibility is available is critical. This could lead to more spill to increase passage of a larger percentage of juveniles and adults.

Response: A review is already provided in the long-term phase of the implementation plan. The criteria for determining the temporal criteria for the total dissolved gas variances are based on applications we receive from the federal agencies.

Monitoring of TDG

Comment: Page 18. All of this page is very qualitative in nature. I suggest you need some quantification of variability; e.g. variability associated with each FMS.

Response: This section of the TMDL – Deviation of Ambient Conditions from Water Quality Standards – is a qualitative description of the problem. The subsection on Monitoring of TDG has been included to describe the monitoring that has been conducted to date. Quantitative analyses of monitoring are included in the Loading Capacity section of the TMDL.

Comment: Page 18. Monitoring of TDG. A recommendation is needed. The use of the existing fixed monitoring sites, with a long history of data collection at each of those sites is appropriate.

Response: This section describes the current situation. Recommendations are provided in a later section (Monitoring of Compliance under Load Allocations, and Monitoring Strategy in the Implementation Plan). We agree that the FMS sites are appropriate in the short term, but their usefulness for long-term TMDL compliance needs further assessment. Long-term monitoring using near-field synoptic surveys also is appropriate.

Comment: Page 18. Monitoring of TDG. “The subgroup has concluded that the “representativeness” of FMS data is a very difficult characteristic to define.” This statement misrepresents the finding of the WQT subgroup. The subgroup has found inconsistencies in the siting of FMS throughout the basin that result in an uneven spill management policy as constrained by the TDG waiver criteria. What is needed is a clear definition of the purpose of the FMS. The CE should be active in promoting a monitoring program that provides reliable and unambiguous measures of the impacts of dam operations on TDG characteristics in the Columbia River.

Response: Since the FMSs were developed through the ESA forums and outside the development of this TMDL, this document proposes to use FMS for short-term fish spill compliance. Further, this TMDL proposes developing less ambiguous monitoring sites and conducting focused near-field studies for the longer term. This monitoring will be used to measure gas being produced at each dam, unmixed with turbine water and far enough from the plunge-pool to not measure in the highly transitory aerated zones.

Loading Capacity

Analysis of TDG generation processes

Comment: Text on page 21 refers to Orlins and Gulliver (2000 and Urban et al (2000), but there is no citation for these in the References.

Response: The full citation for these is:

Orlins, J.J. and J.S. Gulliver, 2000 "Dissolved Gas Supersaturation Downstream of (sic) a Spillway, Part II: Computational Model," Journal of Hydraulic Research, 38 (2), 151-159.

Urban, A.L., D. Johnson, and J.S. Gulliver, 2000 "Preliminary Model for Predicting Dissolved Gas Supersaturation at USACE Spillways on the Snake and Columbia Rivers," Draft Technical Report. U.S. Army Corps of Engineers Waterways Experiment Station, Vicksburg, Mississippi.

These have been included in the Reference section of the TMDL.

Comment: Page 23, PH 1, lines 2 to 4 – “The resultant TDG pressure generated during a spill is determined by physical conditions that develop below the spillway and is independent from the initial TDG content of this water in the forebay.” Is this true when there is entrainment of powerhouse flow? While I agree that the major identified factors are below the spillway, I would think that there could be some minor influences that have yet to be quantified. Suggest saying these are the major controlling processes.

Response: This has been edited to better reflect the uncertain knowledge of these processes.

Comment: Page 26, Figure 5 – The equations in the figure were too faint to read.

Response: Since this figure came from the Corps DGAS report, we are unable to improve it. The equations are not specifically important to the TMDL, and we refer you to the DGAS study for that information.

Comment: Page 28, PH 4, line 10 – “LGSW *respectively*, the...”

Response: The recommended wording has been inserted.

Comment: Page 29, Equation 10 – Define Q_e and Q_{sp} .

Response: These definitions were provided at equation 4.

Comment: Page 29, Ph 3 – Suggest placing on page 30.

Response: The pagination worked better in the draft this way.

Analysis of TDG Loading Capacity

Comment: Page 30. It would be good to include a discussion here about the variability in the FMS data. For example, 1 percent would be 7.5 mm. Page 34 suggests it could be more equal to 3 % or 22.5 mm.

Response: A sentence has been added about the FMS TDG data quality target (in the Data Quality subsection of the Analysis of Current Conditions section). Page 34 refers to filtering used in the spill performance analysis. This should be clear from the context.

Comment: Page 30, First sentence. TDG gas transfer between air and water is driven by differential pressures - atmospheric and hydrostatic pressures, not solely by "gas pressures". Or, do I misunderstand what is being said?

Response: The differential gas pressures are produced by bubbles under atmospheric pressure being subjected to hydrostatic water pressures. But it is the gas pressure gradient that generates increased pressure. This is more detail than is appropriate for the context of this sentence, so the passage will be left as is.

Identification of Sources

Comment: Page 31, PH 1, line 1 – “There are four *major* sources of...” Minor sources could include photosynthesis, tributaries, and temperature effects.

Response: The minor sources listed above are mentioned in the Report text. Temperature effects were originally included in the load allocations, but further analysis indicates that temperature effects are usually offset by degassing by the wind in the Lower Columbia River. Sources of total dissolved gas in the tributaries are sufficiently *de minimus* as to be discounted relative to the contribution of the hydroelectric projects. Photosynthesis may raise dissolved oxygen levels, but because oxygen is metabolized by the aquatic life its physical effects are minor compared to nitrogen, and therefore can also be considered *de minimus*.

Analysis of Current Conditions

Comment: Page 31 and 32, Data Quality section – This section addressed only quantity of data, not quality. I think you can do better.

Response: Reference is made in this section to multiple sources of data quality information, which for succinctness was not repeated in the Report. We could do better, but prefer to allow the reader to reference the original reports which speak for themselves.

Comment: Page 32, PH 3 – Overall a good paragraph. Line 3 – “Data from the FMSs provided a continuous *hourly* record ...”

Response: “Long-term” hourly has been included instead of “continuous”.

Comment: The Draft Report discussed the potential impact of non-deflector bays on the outside of spill patterns. However, CRITFC’s review of the issue indicates that only John Day Dam possesses non-deflector bays in spillbays 1 and 20. After regional discussions, fish managers and hydrooperators reached agreement to avoid using these spillbays, unless they are needed for involuntary spill at levels over the 7Q10.

Response: The discussion of non-deflected bays is included to provide a thorough analysis of the effects of spill management on TDG levels. The implementation plan addresses any agreements made regarding the use or modification of these bays.

McNary Dam

Comment: General comment on McNary – There is no mention of how you used the temperatures in the forebay, that are often too high and would have caused incorrect TDG values in the summer.

Response: A discussion of temperature effects on total dissolved gas saturation is included in the discussion on load allocations.

Comment: Page 35, Equation 11 – Could you provide an R square for this equation?

Response: The correlation coefficient for this equation is provided in Table 5.

Comment: Page 38, PH 3, line 3 and Figure 9 – Line three says June 1998 data are shown and figure 9 says May 1997 data are shown?

Response: This error was also in the DGAS report. The caption was in error and has been changed.

Comment: Page 38, PH 2, line 1 and 2 – “In general, the estimated TDG saturation was [generally] within one percentage point of the observed tailwater TDG saturation.” This is not a very quantitative comparison. It would also be nice to see a statistical comparison between the observed and estimated TDG saturation, such as 5, 10 25, 50, 75, 90, and 95 percentiles; a graph of this information could also be used.

Response: This statement comes directly from the DGAS report and is provided for background. Although we agree that the suggested analysis would be desirable, we did not include it because we do not have the original data, and the analysis would not add sufficient value to this report to justify the effort.

Comment: There is a correction to grammar required under “Powerhouse entrainment.” “Determination” in the third line takes a singular.

Response: This error has been corrected.

John Day Dam

Comment: Page 40, PH 1, line 1 – Why are there only 51 observations? Does this suggest that this relationship has less significance or is less well understood? Does it mean that there are many or most conditions that are not covered by the equation?

Response: This statement comes directly from the DGAS report and is provided for background. Although the questions about the relationship and equation are good, the TMDL does not depend on that equation.

Comment: Page 43, PH 1, Line 4 and 5 – “The TDG response during *voluntary* fish passage spill conditions will be different than a comparable spill discharge at a much higher *involuntary* total river flow.”

Response: We have tried to move away from the concept of voluntary versus involuntary flow, and characterized spill as ‘fish passage’ or ‘involuntary.’ Accordingly, we have inserted the word ‘involuntary,’ but not ‘voluntary.’

Comment: Page 43, figure 12 – Page 39 says that equation 13 is derived from 1998 spill season data. Figure 12 is a comparison of May-June 1998 data. Was the same data used for calibration and checking its performance? If so, say so. If this is the case, I suggest you find another time period to determine the performance of the equation.

Also, there are some very low x values in the figure 12; what do they mean and why are they so low. Again a quantitative comparison would help and provide a basis for how accurate this TMDL is.

Response: This statement comes directly from the DGAS report and is provided for background. Although the questions about “calibration and verification” of the equation are good, the TMDL does not depend on that equation.

Comment: Page 43, PH 3, line 1 – “In general, the estimated average TDG saturation was [generally] ...” What is being averaged?

Response: This statement comes directly from the DGAS report and is provided for background. It appears they were comparing the averages of observed and estimated. Nonetheless, the TMDL does not depend on this information.

Comment: Page 44, Equation 14 – Coefficients C1 and C2 are listed as 315.29 and 519.09. How do you justify 5 significant figures? I suggest rounding to 315 and 519 which is to the nearest mm which is probably much better than your equation. I suggest you review the other coefficients and also consider rounding them as well.

Response: This statement comes directly from the DGAS report and is provided for background. You are probably right about the significant figures, but since this is directly from the report and the TMDL does not depend on this information, the text will not be changed.

Comment: Page 45, Table 9 – I suggest rounding the Std. Error from 15.95 to 16 mm Hg.

Response: See response above about significant figures.

Comment: Page 46, PH 1 – What was the powerhouse entrainment discharges a function of?

Response: As described elsewhere in the text, the powerhouse entrainment is caused by an eddy that occurs because of the spill being deflected horizontally, and appears to be a function of the amount of physical separation (such as occurs at Bonneville and the Dalles), and angle of the deflection, the spill volumes, and tailwater elevation.

The Dalles Dam

Comment: Page 46 and 49 – It appears that 1997 data were used to calibrate equation 15 and observe its performance. Suggest you find data not used for the calibration to determine how well it performs and to provide a statistical comparison, using 5, 10, 25, 50, 75, 90 and 95 percentiles.

Response: See response above for a similar comment regarding McNary.

Bonneville Dam

Comment: Page 51, 52, 53 Figures 17, 18, 19 – Can not read the information at the bottom of the figure identifying the different symbols.

Response: These figures were copied exactly from the DGAS report, but were reduced in size to fit this report’s format. We apologize for the difficulty in reading this –our revisions have improved the readability.

Comment: Pages 53 and 54, Equation 16 and 17 – What are the R squares of these equations?

Response: This statement comes directly from the DGAS report and is provided for background. The r-squares were not provided.

Comment: Page 54, PH 3, Line 3 – “Equations 1 and 2 ...” Do you mean equations 16 and 17?

Response: Yes – this came over from an error in the DGAS report, and has been corrected.

Comment: Page 55, Figure 20 – It was hard to follow the text on page 54 and figure 20. For example, is the average spillway TDG saturation on page 54 the “PSAT-Sp est” in figure 20? Very hard to read the captions at the bottom of figure 20.

Response: It appears that this question refers to Figure 19. (The text had a typo – Figure 19 was identified as Figure 18 in one location.) The revised text explains: “The flow-weighted average TDG saturation released from Bonneville is shown in Figure 19 under the heading of TDG-tw-est.” The text and figure are confusing, but since this came from DGAS, we can’t improve much on it. Our revisions have improved the figures’ readability.

Load Allocations

Comment: The Load Allocation Should Not Be Reduced For Background Increases In TDG With Temperature Changes. The water quality standard is for 110% TDG and the discharge from a hydroelectric project should be allocated that full level of gas entrainment. Increases in TDG background levels due to changes in temperature, either seasonal or daily, occur regardless of whether dams are adding TDG through spill. This also occurs naturally in large rivers and lakes without hydroelectric projects. Dissolved air in water is not a classic “pollutant” and should not be subjected to load allocations as if it were an unnatural component of the water body. As with water temperature and thermal loads, TDG is a dynamic process where the water either absorbs or releases gas to the atmosphere in relation to equilibrium processes that are affected by ambient temperature and pressure. Spill from hydroelectric processes and the deeper water of reservoirs are human-caused changes to the river system that can overload the equilibrium process, causing TDG levels to remain higher than equilibrium at the surface of the water body for extended periods of time and over extended distances. However, a high TDG pressure at the surface is at equilibrium for water that is only a few feet deep. TDG levels in the Columbia River regularly exceed 100%, relative to surface barometric pressure, even at time of year when the hydroelectric projects are not spilling. This background level has never been shown to cause injury to aquatic life and therefore should not be used to reduce load allocations for hydroelectric projects. The compliance TDG level should be set at the 110%, 120% waiver, or future revised TDG criterion at the end of the mixing zone (end of aerated zone at 7Q10 spillway flow).

Response: We have reviewed the allocation to water temperature increases, and concluded that we will remove them and provide the entire allocation to the dams and upstream boundary. However, the reason for change is not the reasons cited above. Analysis determined that wind-induced degassing was strong enough to offset increases in TDG under a high frequency of situations.

Regarding the arguments above, all processes that can affect TDG must be taken into consideration. TDG is a natural component, as are many other pollutants. They become pollutants when human activities produce levels that have adverse effects. The high TDG produced below dams is a function both of the dam spill and the pool it flows into. A dam spilling into a natural rapids might see rapid degassing back to ambient. Conversely, a natural waterfall spilling and generating gas might pose a problem if high TDG levels were maintained by a reservoir below the falls. Therefore both factors must be taken into account. However, in the Columbia and Snake Rivers there are no natural waterfalls or natural pools. Therefore, we

are focusing on the spill as the causing the TDG increase, rather on the pools for prolonging high TDG levels.

The point about the natural variability of TDG is well taken, and must certainly be taken into account in TMDL implementation, monitoring, and compliance.

Comment: Page 57 – The designation of load allocations as a site specific TDG pressure difference is not well founded. The factor of safety is not a realistic correction and is not supported by historic data. The factor of safety described in this document does not take into consideration the dilution of powerhouse and spillway flows nor the off-gassing (air-water exchange at the water surface interface) during transport. This adjustment adds unnecessary complications to the proposed TDG TMDL in the lower Columbia River.

Response: The use of ΔP for load allocations is reasonable, considering the nature of the TDG generation process. It is not clear what “factor of safety” or “adjustment” is being referred to. Dilution by powerhouse flows cannot be taken into account quantitatively because they generally occur far downstream from the dam and cannot be predicted. However, compliance with the TMDL includes any dilution that reduces maximum TDG levels between the dam and the compliance location. The final TMDL also takes into account off-gassing produced by wind in the downstream pool.

Comment: page 57 A listing of the formulas and calculations that were used to determine delta P would be helpful In the Load Allocations Table. Its not clear how the figures were arrived at even though earlier in the document the regression equations are presented. A step-by-step carry through of the calculations would clarify the delta Ps. To me this is a big deal. The whole document is about determining these delta Ps, then suddenly they appear in a table with no equations showing the exact values of the variables that were used to derive them. How do we know the calculations are correct?

Response: The equations for determining the loading capacity are already included. The figures in Table 12 have been revised, and the allocations are now very simple, so the concerns here should be moot.

Comment: Page 57. Loading Allocations. “Because of the unique nature of TDG, load allocations are not directly expressed in terms of mass loading.” Load allocations is a fundamental part of the TMDL process. If allocations cannot be directly expressed, this comment suggest, therefore, that TDG, as a parameter, may not be a pollutant; and it suggest that TMDL process may not be the appropriate vehicle to address concerns.

Response: There are many parameters that do not lend themselves to the rigid use of “loading” in mass per time, such as temperature, turbidity, and bacteria. Nonetheless, these are legally pollutants and must be addressed by standards and TMDLs where necessary. The Clean Water Act takes into account the use of TMDLs to address pollutants using “other appropriate measures”.

Comment: Since there is such a small factor of safety why are the load allocations not set to capacity? Considering the changing levels of spill throughout the season it would be better to allow for flexibility in the load allocations such that the individual projects are held accountable to levels determined at the monitoring point instead of an allocation. The allocation could reduce and impact

the ability of the spill program to meet the fish passage goals set out in the various regional recovery plans. Further, it is unclear as to when this load allocation goes into effect, since there are both short and long-term compliance plans. The current variance process is used to dictate what level of spill a project is allowed. However, the current levels of spill outlined in the 2000 Opinion could be altered under this loading allocation arrangement since this would be based on a set volume of spill that is expected to produce a specific load of TDG at a point of compliance. This appears inconsistent with the short-term implementation plan outlined in the Draft Report's implementation section.

Response: The Clean Water Act requires that TMDLs allocate loads to sources. The load allocations will equal loading capacity for each dam and the upstream boundary. This has been made clearer in the final TMDL. The load allocations go into effect upon approval of the TMDL by the US Environmental Protection Agency. However, full compliance with the load allocations will occur in conformance with the implementation plan. We acknowledge that there will be a period of time required for full compliance with the load allocations. The load allocations are based on a change in pressure, not on a spill quantity. There is full consistency between the load allocations and the measures contained in the implementation plan.

Comment: "Below Bonneville Dam, degassing processes are expected to exceed increases in TDG percent saturation from temperature increases." This statement is not supported by the data. This open river reach experiences significant heat increases during the spring and summer months resulting in large diurnal temperature related fluctuations in TDG pressures. These conditions contribute to the difficulty in managing spillway releases at Bonneville Dam.

Response: Analysis of wind patterns and temperature increases indicates that temperature increases are frequently offset by wind-induced de-gassing in the Lower Columbia River. Also, since the reach below Bonneville is not impounded, more consideration can be given to natural process. Compliance and monitoring will have to take into account the variability of TDG and the travel time between the dams and monitoring stations.

Long-term Compliance with Water Quality Standards

Comment: Page 58. Long term Compliance with Water Quality Standards. "The point here is that spills for fish passage are not really "voluntary"; rather they are spills required for reason other than a lack of powerhouse capacity." Dams are multipurpose water resource projects that have mandates to provide a wide range of benefits to the general public including the production of power. One challenge of Dam operators is to balance competing project purposes. The preservation of fish and wildlife is one purpose that has been promoted through scheduling spillway releases to aid fish guidance. Involuntary or forced spill also can be thought of as aiding fish guidance past main-stem dams in some cases.

Response: This is understood. The Columbia River dam system must be used to satisfy a multiplicity of interests and uses. Maintenance and improvement of water quality is one of many issues. The water quality agencies will continue to work with fisheries agencies, tribes, dam operators, power distributors, and others to move forward with water quality improvements and balanced use of the river.

Comment: Page 58. Compliance with Standards for All Spills. "Endangered Species Act requirements for spills must be considered to be just as binding as, say disinfection requirements for wastewater.Similarly, the dams have an obligation to both meet water quality standards

and ESA requirements.” The analogy is not appropriate because chlorine is used to kill bacteria while promoting public health for humans, while spill is to promote survival of anadromous fish, which in turn, could also have a chronic effect on resident fish. The relative value of bacteria versus humans is more solidly accepted than the relative value of anadromous versus resident fish.

Response: This section has been reworded to avoid confusion. The balance is not between humans and bacteria, but between human health and aquatic life. The value of both are recognized, with one perhaps carrying more weight, such as endangered salmon carrying more weight than impaired but not threatened sucker populations.

Comment: This section should be eliminated or rewritten. The paragraphs referring to compliance with standards for all spills is inconsistent with previous sections that declare that the TMDL does not take precedence over ESA, or Indian Treaty rights. Proposing the fish spill program must be applicable for this TMDL appears to mean that the TMDL takes precedence over ESA and tribal treaty rights. This inconsistency should be addressed in the Final Report. CRITFC agrees that the specified hydroprojects need to comply with the Clean Water Act but not at the expense of the very same beneficial use that the TMDL is trying to protect.

Further, public interest is not what necessitates the fish spill program. Passage protection of ESA-listed and non-listed anadromous fish migrants is what necessitates the spill program.

Response: This section is pertinent, and should remain. Previous sections have stated that the Clean Water Act does not take precedence over the Endangered Species Act. However, neither does the Endangered Species Act take precedence over the Clean Water Act. Both Acts need to be met simultaneously. The Departments respectfully disagree that protecting fish is for other than meeting the public interest.

Comment: In the first sentence under “Point of Compliance,” “chose” should be “chosen.”

Response: This error has been corrected.

Comment: Page 59 and 61 -- Are the points of compliance the FMSs and are these locations providing representative TDG measurements relative to the DGAS study results?

Response: The long-term TMDL compliance locations are independent of the FMS locations. However, some of the FMS sites may be measuring TDG levels equivalent to the compliance locations, while some may not. More information and analysis is needed before conclusions can be drawn about whether the FMS data are representative of conditions at the compliance locations.

Comment: Page 59 Point of Compliance “If mixing zone provisions were applied to the aerated zone, then the point of compliance would be at the end of the aerated zone.”, The application of the mixing zone provision applies to the region where receiving water dilute the effluent discharge. This would apply to the region downstream of aerated flow where spill flows encounter powerhouse releases. The figurative end of the pipe would correspond with the bubble free territory immediately downstream of the aerated flow. The mixing zone in this instance does not apply to the two-phase flow air/water interaction but to the spillway/powerhouse flow interaction. The stated definition of a mixing zone as spelled out by the State of Washington is as follows: "Mixing zone" means that portion of a water body

adjacent to an effluent outfall where mixing results in the dilution of the effluent with the receiving water. Water quality criteria may be exceeded in a mixing zone as conditioned and provided for in WAC 173-201A-100.

Response: We must respectfully disagree with your interpretation. The state regulations that govern mixing zones are being applied to provide some flexibility in the compliance with standards. The figurative end of the pipe is the foot of the spillway where the spill leaves the dam and reenters the free-flowing river. In this TMDL we are designating an “aerated zone” in which the standards do not apply based on our authority provided by the mixing zone language. We are not applying the “mixing zone” to the mixing of powerhouse and spillway flows, except to the extent that this may occur within the aerated zone.

This zone must be limited in geographic scope. For Washington, the greatest mixing zone area is one quarter of a waterbody at most, unless an exception can be granted. The conditions for an exception include: “AKART [all known available and reasonable treatment] appropriate to the discharge is being fully applied”; “all siting, technological, and managerial options which would result in full or significantly closer compliance that are economically achievable are being utilized”; and “the mixing zone would not have a reasonable potential to cause a loss of sensitive or important habitat, substantially interfere with the existing or characteristic uses of the water body, result in damage to the ecosystem, or adversely affect public health as determined by the department”. We have determined that hydraulic characteristics of the aerated zone justify the use of the mixing zone provision in this area. However, because of the lack of full implementation of gas abatement alternatives and possible impacts on habitat and the ecosystem, a mixing zone that extends for miles downstream is not justified.

Comment: “Because the area below the spillway is very dynamic, TDG levels are difficult to accurately assess.” The spatial variation of TDG pressure in the area just downstream of highly aerated flow can be quite large due to non-uniform spill patterns, depth variation, dilution with powerhouse flow, and pressure time history of entrained bubbles. This document does not describe how TDG observations in this area will be used to determine compliance with TMDL criteria.

Response: Research done in support of the DGAS study and subsequent deflector studies has been reasonably successful in mapping TDG patterns in the area below the aerated zone. Future monitoring would build on that experience. The specific description of how monitoring would assess TMDL compliance will be included in monitoring plans developed at the appropriate time in the future.

Comment: “Extensive fisheries research has shown that anadromous fish are able to pass through this area below the spillway quickly without ill effects.” Flow recirculation underneath the spill jet can retain water and fish for a consideration period of time. Physical injury is a concern for fish passing through the stilling basin and adjoining tailwater channel.

Response: This comment has been incorporated into the document to read, “Extensive fisheries research has shown that most anadromous fish are able to pass through this area below the spillway without ill effects.” The possibility that flow recirculation retains and harms fish will need some more study. If the TMDL is fully implemented, and evidence is produced that the aerated “mixing” zone being applied results in “a reasonable potential to cause a loss of sensitive or important habitat, substantially interfere with the existing or characteristic uses of the water

body”, or “result in damage to the ecosystem”, the size of the zone could be reduced or the zone eliminated.

Comment: “Because of the turbulent flow associated with the spill, no resident fish habitat is available in this area.” The data does not universally support this statement. Areas of slack water and recirculating flow has been identified as habitat for resident fish.

Response: This has been reworded to say “Because of the turbulent flow associated with the spill above the compensation depth, little or no resident fish habitat is available in this area. (The zone below the compensation depth is in compliance with standards.)” Also, see previous comment.

Comment: How does the mixing zone definition apply to the highly aerated flow regime associated with major spillway releases from a dam?

Response: The mixing zone definition provides the flexibility to designate an area where rapid physical and chemical transformations of short duration can occur in an area small enough or inaccessible enough to not impact the aquatic resource. This definition is being applied to the zone of aeration below each dam’s spillway. The size of the mixing zone is being set at a specific distance downstream of the dam, based on the near-field studies conducted at the site. The fixed distance is being applied for regulatory simplicity and because of the lack of data to create more complex distance criteria. For spillway releases close to but below the 7Q10 flood flow, compliance with the TMDL is still required at the compliance locations. Compliance in real time would be determined from a fixed monitor, and evaluated by an analysis of the relationship of the fixed monitor to TDG levels at the compliance location. The effectiveness of structural changes to meet the TMDL would be determined by near-field synoptic studies over varying spill levels in the area of the zone of compliance.

Comment: “The forebay of each dam must comply with the sum of the load allocation for the upstream dam and the background load allocation for temperature in the upstream pool, which is equal to the loading capacity.” See the response in paragraph 1.

Response: The TMDL has been modified, so this language no longer applies and the sentence has been edited.

Monitoring of Compliance

Comment: The Point of Compliance Should Be Better Defined. The Draft TMDL expresses the point of compliance with the load allocations alternatively as the end of the aeration zone in the tailrace and at a specific distance below the end of the spillway for each dam. It is unclear at what spill volume the specific distance (end of aerated zone) was determined. The distance below the spillway that the aerated zone will extend varies with changes to spill volumes, the locations of gates that are in operation and possibly with changes in tailwater depth, a function of total flow. Many of the short- and long-term measures described for implementation to reduce TDG loading are also going to change the location of the end of the aeration zone. If the point of compliance were to change from the fixed distance to some point further upstream, following installation of removable spillway weirs or other measures that reduce the total volume of water that is loaded with TDG, the new measurement location may not demonstrate the full benefit of

the structural modification to the TDG level in the river. Since the ultimate requirement is to meet the load allocation at the 7Q10 spill level, the end of the aeration zone at the current spill operations needed to pass that flow volume should be the point of compliance. This can be converted to a fixed distance and thus any modifications that reduce the volume of water being loaded with TDG will be able to demonstrate improvement due to dilution within this fixed mixing zone.

Response: This comment makes some good points. However, the TMDL specifies the compliance location as a single fixed distance for regulatory clarity and simplicity and because of the lack of data to create more complex distance criteria. Simply

Comment: Page 61-Monitoring of Compliance. How will the TDG data within 1700 ft of the spillway be used to determine compliance?

Response: The TMDL anticipates that near-field synoptic surveys will assess TDG levels across the channel and above and below the compliance location under varying spill conditions to evaluate the compliance of structural changes with the TMDL. This data could also be used to determine the relationship of TDG at the compliance location to a real-time fixed monitor, to evaluate compliance from dam operations.

Comment: Page 61, paragraph 1, lines 4-5 Specify that the end of the aeration zone is for spills at the 7Q10 flow level and check the distances in Table 13.

Response: See response above for Executive Summary. Data are not available to determine the size of the aeration zone at 7Q10 levels. A compliance location at a set distance based on observed data has been chosen as the most reasonable approach.

Margin of Safety

No comments received.

Critical Conditions

Comment: Critical Conditions. See the response in paragraph 7.

Response: See earlier response to the comment above.

Criteria versus Site-specific Conditions

No comments received.

Data Quality

Comment: Page 63 and 64, Data Quality – There is no data quality statement here. This is data quantity. Suggest you rewrite and address data quality.

Response: The amount of data available does relate to the margin of safety. However, the comment is accurate in noting that the quality of the data is not mentioned. This section has been revised.

Seasonal Variations

No comments received.

7Q10 Flows

Comment: Seasonal Variations. What years of data were used in the 7Q10 evaluation? What is the scientific rationale for selecting a 7Q10 event to identify exempt conditions? Add a 95 percent confidence interval to Table 14 to help quantify the uncertainty in the design discharge for DGAS abatement measures for short and long-term alternative.

Response: The years of data used to determine a 7Q10 high flow event for the Columbia and Snake, Water Years 1975 through 2000, were selected using best professional judgment. The rationale was that the last of the dams on the Columbia were built in Canada by 1974, before the Clean Water Act was created (1975). These dams reconfigured the hydrology of the river to such an extent that 7Q10 had to be calculated with all the dams in place. The water quality standards often use 7Q10 flows to identify natural droughts or floods that are beyond human control. Since the point of the Clean Water Act and Water Quality laws is to control human activities, extreme natural conditions become exempt from the law. Since the 7Q10 flow is a regulatory value, a 95 percent confidence interval would be confusing. The uncertainty in DGAS abatement measures should be assessed separately.

Comment: Page 66, Table 14 -- Suggest you reduce the flow values to 4 significant figures, which is all the data will support, at best. Also, there is no mention of which water years were used to make this calculation. With climatic change, these calculations may need to be repeated in 10 or so years.

Response: Table 14 has been changed to include 3 significant figures, and the years used for the calculation are now described. Reassessment of the 7Q10 in the future would be reasonable.

Summary Implementation Strategy

Overview

Comment: The timetable for compliance seems vague and open-ended. It doesn't identify a time when compliance will be achieved. The TMDL should identify a point in time when it would be reasonable to expect compliance. Without a timetable, it is possible that efforts to achieve the standard could continue indefinitely.

Response: Identifying a specific point for standards compliance is difficult with this TMDL. One of the major difficulties is that compliance could be specified within a relatively short period, were there not fish passage requirements to be protected. Further, many of the structural measures identified can be numerically and physically modeled, but until they are implemented 'on-the-ground,' actual total dissolved gas improvements are speculative.

As a result of both of these factors, the compliance timetable has been left deliberately flexible. However, there is a clear expectation that compliance will be achieved within the long-term timeframe – *i.e.* by 2020.

Comment: The Draft Report discusses the beneficial uses of the river outlined by the Oregon and Washington’s water quality standard, but none of these uses, except the anadromous fish identified in the Draft Report are impacted by total dissolved gas. Therefore, what constitutes the best operations for the needs of the anadromous and other resident and aquatic species should take precedence when considering the strategy to meet the total dissolved gas TMDL.

Response: Limiting total dissolved gas is designed specifically to address the needs of anadromous and resident fish.

Implementation Plan Development

Comment: Pages 69 and 71, Implementation Plan Development – On these pages references are made to a “Detailed Implementation Plan.” What is meant by a “Detailed Implementation Plan” and how is this different from the title of the document section, *i.e.*, “Summary Implementation Strategy?”

Response: The confusion of terminology here is an artifact of the language contained in each of the States of Washington’s and Oregon’s consent decrees on the TMDL program. For the State of Washington, a TMDL is required to contain an implementation strategy. The State then has a year in which to provide a detailed implementation plan. The State of Oregon is required to provide an implementation plan with the TMDL. The Implementation Plan provided with this TMDL is more detailed than that usually supplied by the State of Washington as a Summary Implementation Strategy. It is, in content, more akin to the plan required of the State of Oregon. The terminology is required so that each State can demonstrate that it has complied with the provisions of its consent decree.

Comment: Page 69, Implementation Plan Development, second paragraph – The first sentence should be changed to read, “The short-term actions in Phase I will focus on meeting the fish passage performance standards as outlined in the National Marine Fisheries Service 2000 Federal Columbia River Power System Biological Opinion through spills...”

Response: This amended wording has been included.

Comment: Page 69, Implementation Plan Development, third paragraph – In the second sentence replace “fish survival rates” with “performance standards.”

Response: This amended wording has been included.

Comment: Page 69, Implementation Plan Development, fifth paragraph – Second sentence should be modified to read, “However, the states of Oregon and Washington support the evaluation...”

Response: The Clean Water Act provides a mechanism under which water quality standards may be reviewed. This is known as a triennial standards review. Any revision of the total dissolved gas standard could take place under this review. However, this will be, in part, dependent on resource availability and the other standards requiring review. Any evaluation of

the total dissolved gas standard will require a full scientific review, and a demonstration that an alternative criterion will be fully protective of designated beneficial uses.

Comment: Page 69. Implementation Plan Development. "As a result, thought has been given to permanently modifying the water quality standards or establishing site-specific criteria for TDG for the Columbia River. The purpose of this TMDL, however, is to allocate loads to meet the existing water quality standards." Same Comment as #9.

Response: See earlier responses.

Comment: CRITFC strongly supports the Draft Report's statement that a review of the standard should take place before the end of the short-term compliance phase. Current data indicates that for the anadromous fish, resident fishes and other aquatic life, the 110% TGP standard is overly conservative. A thorough scientific review and any additional research to verify past findings should be conducted to determine the standard. This review would need to determine if the current level is adequately protecting the beneficial uses. A process to determine if a new level TDG or permanent waiver change for the Columbia Basin would be a better balance for the requirement of the beneficial uses needs to be undertaken. It is critical that CRITFC and its member tribes, as resource co-managers, should be full participants in this review and the short and long-term implementation plans.

Response: The review of the standard, resources permitting, will occur in the long-term phase of implementation. Such data and studies as would be needed to support a review of the standard will be collected in the short-term. The process for changing standards is a public one. The Tribes will be involved in it.

Comment: The Final Report should also include 1) completion of monitoring and other scientific literature relative to the short-term standard, 2) provision for implementing a review of the existing standard in parallel with development of short-term and long-term implementation plans and, 3) inclusion of tribes as co-managers of the resource in development of these actions.

Response: Amendments to the water quality standard are a different exercise and will be fully developed in the appropriate forum. The Tribes are co-managers of the fishery resource, and we always welcome input on managing water quality improvements.

Comment: The TMDL discusses the spill program objective which is to generate spill "no greater" than the waiver levels. To what level does "no greater" mean? Currently there is much debate about how close total dissolved gas levels can be to the waiver levels before spill needs to be reduced. Due to the great benefits of spill and the lack of data that would indicate levels of total dissolved gas at 115%-120 % are harmful to anadromous species, it would seem that some flexibility could be used when managing the spill program at the fixed monitoring sites. There is no discussion of this in the Draft Report. The Final Report should address this important issue.

Response: "No greater than," means "shall not exceed as measured at the fixed monitoring stations." This TMDL has been written to meet the water quality standard as required by the Clean Water Act.

Implementation Activities

Comment: On page 17 (sic) the third paragraph should read “Table 16 contains short-term implementation actions that are not directly related...”

Response: This has been amended.

Comment: The measures that are identified as Phase II, or long-term structural changes to the dams are confusing in terms of their relationship to meeting the water quality standard. Most of the measures listed improve fish passage at the dams, and thereby may, at some time in the future, allow for a reduction in “voluntary” spill to meet fish passage/survival goals at individual dams. And while this may relate to attaining compliance for fish mitigation spill, it is unclear how these measures would ever reduce TDG production at flows up to the 7Q10 levels as specified in the standard. When flows in excess of hydraulic capacity occur, that are above Biological Opinion spill levels and up to but below the 7Q10, these fish mitigation measure will have no effect on TDGS production. Long-term alternatives should be identified that bring the projects into compliance outside the relationship to voluntary or fish mitigation spill. If such measures have not yet been identified, the TMDL should require an effort to develop and implement them. It is at these high flows where the greatest excursions from the standard are likely to occur and concomitantly, when the greatest risk from high TDGS levels to fish health occurs.

Response: Many of the implementation measures identified relate specifically to fish passage. We wanted to ensure that attainment of the water quality standard was achieved concurrently with adequate fish passage. We believe that the structural measures identified will improve total dissolved gas levels both for fish passage and for flows up to the 7Q10 level.

Comment: Both Ecology and ODEQ will continue to work with the Corps of Engineers and others in the lower Columbia River to ensure implementation of this TMDL. A strong presence by both agencies can help to provide additional pressure for the federal action agencies to recognize the provisions of the Clean Water Act and comply with state water quality standards.

Response: Both agencies intend to remain engaged with this issue throughout implementation.

Comment: Page 70, Short-Term – Phase I, Third paragraph – The statement should read “Table 15 includes specific structural implementation actions (from the National Marine Fisheries Services (sic) 2000 Federal Columbia River Power System Biological Opinion) that will be completed during this phase and are directly related to achievement of the water quality standard.”

Response: Amended wording has been included.

Comment: Implementation Strategy. The water quality benefits associated with Activities identified in Table 16 are uncertain.

Response: The language in the paragraph prior to Table 16 has been changed to read, “Table 16 contains additional short-term implementation actions that are indirectly related to achievement of the water quality standard. Implementation of these measures though, is likely to improve salmon passage and help achieve performance standards of the biological opinion.”

Comment: The wording that describes the Long Term Phase II section should be clarified in the Final Report. Reductions in spill would only occur if tribal fish passage goals are being met through surface bypass methods. All structural changes to abate dissolved gas should be implemented and the standard should be reviewed before reductions in the spill program are implemented. It is unacceptable to CRITFC to use turbine or screened bypass operations as a means to reduce fish passage spill.

Response: The actions detailed in the Implementation Plan will be pursued adaptively. We want to ensure that water quality standards are attained, and that the survival standards established by the National Marine Fisheries Service are met.

Comment: Page 72, Long Term – Phase II, paragraph below Table 17 – Delete “do not impede fish passage” in the second sentence and replace with “provide safe and effective fish passage.” In the third sentence add “and safe” between the words “effective” and “should.”

Response: These amendments have been included.

Reasonable Assurance

Comment: The TMDL Does Not Provide Reasonable Assurance that the Load Allocations Will Be Achieved. The TMDL addresses water quality standards for TDG that are probably impossible to meet at hydroelectric projects. While the 110% criterion has been in existence for over 20 years, failure of hydroelectric projects to meet with this water quality criterion during spill events has been largely ignored by Ecology when setting conditions for licenses and certifications. This lack of action was not due to ignorance of the issue or malfeasance, but rather a recognition that technology did not exist to meet the standard when water is spilled from open discharge spillways. The hydroelectric industry has responded in many ways, even without a TMDL, with practical implementation of measures to reduce involuntary spill and limit TDG levels through structural modifications. These measures include expansion of storage capacity upstream from run-of-river dams, expansion of powerhouse hydraulic capacities, implementation of regional monitoring networks for TDG and shifting of energy load and involuntary spill operations (immediate replacement energy spill) to prevent excessive TDG levels in segments of the Columbia and Snake rivers during high flow periods. The U.S. Army Corps of Engineers DGAS program has been extensive, involving millions of dollars and a thorough look at structural modifications to spillway designs typical of the Columbia River hydroelectric projects. Chelan PUD is unaware of any practical and feasible structural modifications identified in the DGAS program that would meet the concurrent requirements of safety to fish and limiting TDG to 110% at the 7Q10 spill level. In this TMDL document, the unit spillway regressions clearly show that the proposed load allocations can't be met even at very low spill levels. The October, 2001 preliminary draft contained additional information not included in the final draft TMDL. That information (Table 10) demonstrated that even flow deflectors and other structural modifications can't meet the load allocations, even when spillway discharge is less than 25% of the 7Q10 flow. In the October 2001 Preliminary Draft TMDL (Tables 13 – 16), a number of extreme structural modifications (discussed above) are listed that theoretically could meet the 110% standard, but that would still potentially fail to meet the load allocation after allowance for natural background increases in TDG due to temperature changes. Also, these more extreme structural measures were observed in model studies by a panel of scientists and evaluated

regarding their potential for causing fish injury. Some of these options were judged likely to have serious potential to injure fish. Any measures taken to meet involuntary spill TDG load allocations must also be safe for passing fish because most involuntary spill occurs during the juvenile salmonid migration period. Similarly, any structural modifications to meet TDG standards for voluntary spill for fish passage must also not limit the ability to meet TDG standards at the higher flows that occur during involuntary spill. Current information indicates that the proposed load allocations cannot be met for the full range of spillway flows, thus the reasonable assurances section of the TMDL should include greater discussion of the need to review the 110% TDG criterion as part of the actions required under this TMDL.

Response: The TMDL currently addresses the concerns raised here as fully as possible. The level of assurance provided is reasonable, given the context of the expenses involved, the uncertainty of outcome, and the goal of steady progress. Many other kinds of TMDLs that involve nonpoint sources, for example watershed temperature TMDLs, involve long-term compliance with uncertain outcomes. (Uncertain here means the extent of improvement is unknown, even though improvement is certain.) The regressions provided in DGAS are based on empirical analysis of existing structures. Because of the hydraulic and physical complexity of spill flows and gas exchange processes, it is impossible to predict with any accuracy the effects of proposed abatement measures. Therefore, the approach taken in the TMDL is the most reasonable, requiring steady progress, but recognizing the uncertainty of the specific level of improvement.

The TMDL process only allows us to focus on meeting existing standards. A separate process is available to evaluate the standards, and is discussed in the Report and in previous comments. In evaluating implementation options, we have three choices: we might be certain that a source cannot meet standards other than be removal of the source, we may be certain that a source can meet standards by using certain cost-effective methods, or we know of a variety of methods but be uncertain of their effectiveness until they are implemented. I believe the last choice is an accurate assessment of this situation. The second choice is not operative. I don't believe the non-federal dams want the first choice to be operative, in light of the requirements of FERC license 401 certification.

Comment: Page 72. Reasonable Assurance. "The track record for congressional funding for these projects is good and there is reason to believe that further funding of projects will continue." Same comment as contained in #6. The past Congressional funding to address TDG has been for ESA reasons; it is not appropriate to expect that the same level of Congressional fiscal support will be awarded to CWA issues.

Response: The perspective is appreciated; however we differ. We expect that over the long-term, congress will equally support the Clean Water Act and the Endangered Species Act.

Comment: Increases of spill and spill efficiency are critical to promote restoration and enhancement of anadromous fish populations in the Columbia Basin that are the foundation of the tribal treaties. The Lower Columbia TMDL should promote protection of the beneficial use by assuring safe dam passage thorough appropriate dissolved gas standards, while requiring the Corps and other federal agencies to prioritize structural measures to reduce the creation of total dissolved gas from federal dams in the Lower Columbia River. We strongly recommend that the state water quality agencies join the tribes in requiring the Corps and other federal agencies to

give top priority to funding of both gas abatement and temperature structures at the Lower Columbia dams.

Response: The function of a TMDL is to return waters to water quality standards. To try and change fish passage past dams is not within the ambit of this TMDL. This should be addressed within a biological opinion under the Endangered Species Act. Indeed, the 2000 biological opinion sets survival standards. This TMDL is consistent with those survival standards. We welcome Tribal support in securing funding for water quality improvements on the Columbia River.

Adaptive Management

No comment received.

Monitoring Strategy

Comment: A clear distinction should be made within the document, between short-term compliance and monitoring versus long-term compliance. Without a clear separation, the document seems to be contradictory regarding such things as the location for measuring compliance, the spill volume that may be allowed based on the measures and others.

Response: Long-term compliance will be established at the edge of the zone of aeration. This will be the point of compliance for this TMDL. However, given the long time series of data obtained from the existing Corps' fixed monitoring stations, and their historic use in relation to fish passage spill, they will continue to be used in the short-term.

Comment: Page 73, Monitoring Strategy, First paragraph – Replace “effective” with effectiveness.” Fourth sentence, delete “Endangered Species Act.”

Response: The amendments have been included. However, to ensure that readers understand the context for the Water Quality Team, the following words have been inserted just before – “National Marine Fisheries Service’s.”

Comment: Page 73, PH 5, line 9 – “the station represents TDG *and water temperature* in a”

Response: This has been inserted.

Comment: page 73 The document seems unsettled about the location of FMS for compliance. It seems to say that the WQT can determine the location of the FMS at sites other than the end of the bubble zone based on "screening criteria" related to "how well the station represents TDG in a given river reach and how sensitive the station is to non-spill factors that affect TDG". But nowhere in the standard are there such criteria other than " at any point of measurement". Then on page 61 there is presented a table showing exact distances downstream from each dam where FMS should be located. I don't think the point of compliance should be turned over to the WQT, instead it should be emphasized that the WQT can make recommendations to the states for approval.

Response: The FMS sites are established by the WQT for the ESA spills program. With the TMDL we are attempting to not interfere with the current process of placing FMS sites. The compliance locations will be evaluated by other means, most likely by synoptic near-field

studies. Nowhere are we requiring FMS sites to be placed at the compliance location. However, in the long run statistical relationships may be established between the compliance locations and FMS sites to allow real-time evaluation. Some FMS sites may already be representative of TDG at compliance locations, while it may be possible to move other sites to representative locations. The TMDL encourages those links, but does not require changes to FMS locations.

Comment: Page 74, Monitoring Strategy, First paragraph – The sentence “The quality assurance project plan should address the safety and stability due to strong...” Safety and stability of what?

Response: This has been amended to show that the plan should address the safety and stability of the site to support monitoring equipment.

Potential Funding Sources

No comment received.

Summary of Public Involvement

No comment received.

Public Involvement Actions

No comment received.

References and Bibliography

No comment received.

Notice of Public Hearing & Comment Period

Lower Columbia Draft TMDL for Total Dissolved Gas & Draft Implementation Plan

The Oregon Department of Environmental Quality (DEQ) and the Washington Department of Ecology are proposing limits to total dissolved gas to protect water quality on the Lower Columbia River.

Notice issued: February 18, 2002

Hearing date(s):

Monday, March 18, 2002

Washington Dept. of Ecology Field Office
1315 W. 4th Ave. (off Olympia St.)
Kennewick, WA

3:30 p.m. Question and Answer Session
4:00 p.m. Public Hearing

Tuesday, March 19, 2002

Tamastlikt Cultural Institute
72789 Highway 331
Pendleton, OR

1:30 p.m. Question and Answer Session
2:00 p.m. Public Hearing

Friday, March 22, 2002

Oregon State Office Bldg.
800 NE Oregon St.
Portland, OR

8:30 a.m. Question and Answer Session
9:00 a.m. Public Hearing

Friday, March 22, 2002

Washington Dept. of Fish & Wildlife
2108 Grand Blvd & 4th Plain
Vancouver, WA

1:00 p.m. Question and Answer Session
1:30 p.m. Public Hearing

Written comments due:

Written comments on the proposed Total Maximum Daily Load and/or the Implementation Plan must be received by 5 p.m. April 5, 2002.

Where can I send comments and get more information?

DEQ and Ecology accept comments by mail, fax and email. Send comments to:

Russell Harding
Oregon DEQ
811 SW 6th Avenue
Portland, OR 97204
E-mail: harding.russell@deq.state.or.us
Phone: (503) 229-5284
Fax: (503) 229-5408

Paul Pickett
Washington Dept. of Ecology
PO Box 47600
Olympia, WA 98504-7600
E-mail: Ppic461@ecy.wa.gov
Phone: (360) 407-6882

(If there is a delay between servers, e-mails may not be received before the deadline.)

What is proposed?

DEQ and Ecology propose to submit the Lower Columbia River Total Dissolved Gas TMDL and Implementation Plan to the U.S. Environmental Protection Agency (EPA) for approval as a total maximum daily load (TMDL). EPA approval would remove water quality limited streams covered by the TMDL from DEQ's and Ecology's "303d" lists of impaired waterbodies.

The Lower Columbia River Total Dissolved Gas TMDL is based on the Clean Water Act, the Dissolved Gas Abatement Study conducted by the U.S. Army Corps of Engineers and the National Marine Fisheries Service's 2000 Biological Opinion for the Federal Columbia River Power System. This public hearing addresses only the TMDL and Implementation Plan that are being submitted to EPA. The purpose of this notice is to invite you to make oral comments on this proposed TMDL at a hearing. You also may comment in writing.

Who is affected?

Users of the Columbia River. People interested in water quality and fisheries, and people interested in DEQ's and Ecology's implementation of Section 303(d) of the federal Clean Water Act.



State of Oregon
Department of
Environmental
Quality

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Phone: (503) 229-5284
(800) 452-4011
Fax: (503) 229-5408
Contact:
Russell Harding
www.deq.state.or.us



**Washington State
Department of
Ecology**
PO Box 47600
Olympia, WA 98504
Phone: (360) 407-6882
Fax: (360) 407-
Contact:
Paul Pickett
www.ecy.wa.gov

Why is this action necessary?

Section 303(d) of the federal Clean Water Act requires development of TMDLs for waterbodies included on states' "303(d)" list.

Where can I review the documents?

The TMDL/Implementation Plan is available for examination and copying at DEQ's Headquarters Office at Oregon DEQ, Water Quality Division, 811 SW 6th Avenue, Portland, OR 97204.

Documents are also available on DEQ's web site at:

<http://www.deq.state.or.us>.

Click on "water quality" then on "water quality program public notices".

The TMDL/Implementation Plan is available for examination and copying at Ecology's Headquarters Office at 300 Desmond Drive SE, Lacey, WA 98503.

Documents are also available at:

<http://www.epa.gov/r10earth/columbiainstemtmdl.htm>

While not required, scheduling an appointment will ensure documents are readily accessible during your visit.

To schedule an appointment in Portland contact Russell Harding at (503) 229-5284.

For an appointment in Lacey, contact Paul Pickett at (360) 407-6882.

To request copies of the TMDL and Implementation Plan call Russell Harding or Paul Pickett at the above phone numbers.

Questions on the proposed TMDL and Implementation Plan should be addressed to Russell Harding or Paul Pickett at the above phone number.

Additional document locations

Copies of the TMDL/Implementation Plan are also available at:

DEQ - Pendleton Office
700 SE Emigrant, Suite 330
Pendleton, OR 97801

DEQ - The Dalles Office
400 East Scenic Drive, #307
The Dalles, OR 97058

DEQ - Northwest Region Office
2020 SW 4th Ave., #400
Portland, OR 97201

DEQ - North Coast Branch Office
65 N. Highway 101, Suite G
Warrenton, OR 97146

DEQ - Hermiston Office
256 E. Hurlburt, Suite 105
Hermiston, OR 97838

What happens next?

DEQ and Ecology will review and consider all comments received during the public comment period. Following this review, the TMDL and Implementation Plan may be sent to U.S. EPA for approval as a TMDL or may be modified prior to submission. You will be notified of DEQ's and Ecology's final decision if you present either oral or written comments during the comment period. If you do not comment but wish to receive notification of DEQ's and Ecology's final decision, please call or write DEQ or Ecology at the above phone numbers/addresses.

Accommodation of disabilities

DEQ and Ecology are committed to accommodating people with disabilities. Please notify DEQ or Ecology of any special physical or language accommodations you may need as far in advance of the hearing date as possible. To make these arrangements, contact Russell Harding at (503) 229-5284 or Paul Pickett at (360) 407-6882. People with hearing impairments can call DEQ's TTY at 503-229-6993 or Ecology's TTD or at Ecology's TDD number (360) 407-6006.

Accessibility information

This publication is available in alternate format (e.g., large print, Braille) upon request. Please contact DEQ Public Affairs at 503-229-5317 or toll free within Oregon 1-800-452-4011 to request an alternate format. People with a hearing impairment can receive help by calling DEQ's TTY at 503-229-6993.

Sign-in Sheet – Public Hearing on March 18, in Kennewick, Washington

WASHINGTON DEPARTMENT OF ECOLOGY
Public Meeting Sign In Sheet

Lower Columbia TDG TMDL

Meeting Topic

3-18-02 Kennewick, WA

Date

NAME: ORGANIZATION:	ADDRESS—Street/P.O. Mailing <u>AND</u> E-mail Note: We hope to provide information to you via e-mail, when possible.	Prefer to receive information via
Jim Irish	1653 E. Heritage Loop LA Center, WA 98629 jirish@BPA.gov	<input checked="" type="checkbox"/> E-mail <input checked="" type="checkbox"/> U.S. Mail
Chris Magan	1135 E. Hillsboro St. Pasco, WA 99303 cmagan@SciBiology.org	<input checked="" type="checkbox"/> E-mail <input checked="" type="checkbox"/> U.S. Mail
Barbara Minton Oregon DEQ	700 SE Emigrant, Suite 330 Pendleton, OR 97801 barbara.minton@deg.state.or.us	<input checked="" type="checkbox"/> E-mail <input type="checkbox"/> U.S. Mail
Emily Withycombe	2815 St. Andrews Loop, Suite C Pasco, WA 99301 ewithycombe@ppc.com	<input checked="" type="checkbox"/> E-mail <input checked="" type="checkbox"/> U.S. Mail
Steve Hays	Chelan PUD	<input type="checkbox"/> E-mail <input type="checkbox"/> U.S. Mail
		<input type="checkbox"/> E-mail <input type="checkbox"/> U.S. Mail

Sign-in Sheet – Public Hearing on March 19, in Pendleton, Oregon

ATTENDEE SIGN-IN SHEET

NAME	ADDRESS/PHONE	REPRESENTING
1.	Frank Nicholson, Smere, Walla Walla Wa	city of
2.	Rick George (541) 276-3449	rgeorge@ctuir.com
3.	CARL MERKLE (541) 276-3449	ctuir carlmerkle@ ctuir
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Sign-in Sheet – Public Hearing on March 22, in Portland, Oregon

ATTENDEE SIGN-IN SHEET

NAME	ADDRESS/PHONE	REPRESENTING
1. Cliff Sears	P.O. Box 878, Ephrata, WA. 98823 (509) 754-6612	Grant PUD
2. Nikole Hampton	P.O. Box 1231, Wenatchee, WA 98801, 509-663-8121	Chelan PUD
3. Mike Herald		WA STECO
4. Mark Schneider	National Marine Fisheries Service 525 - NE Oregon	NMFS
5. Rickelle Harding	201 SE 83rd ARA	Mid-Co PUDs
6. Ross Maza LA	BLM 333 SW 1st PDX	BLM
7. Gary Frederick	NMFS 525 NE Oregon 98271-1855	NMFS
8. Mike O'Bryen	4932 NE L. Hancock PDX 97213	Cl. Bar. Roll
9. Helen Rueda	811 SW 6th PHD	EPA
10. Mary Lou Sosa	EPA 811 S.W. 6th	
11. John Piccininni	BPA-F+W Div ^{P.O. Box 3521, PDX 97208}	BPA-
12. Tom Lore	CRITFC	CRITFC
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Sign-in Sheet – Public Hearing on March 22, in Vancouver, Washington

WASHINGTON DEPARTMENT OF ECOLOGY
Public Meeting Sign In Sheet

Lower Columbia TDS TM DL Vancouver fo
Meeting Topic

March 22, 2002
Date

NAME: ORGANIZATION:	ADDRESS—Street/P.O. Mailing <u>AND</u> E-mail Note: We hope to provide information to you via e-mail, when possible.	Prefer to receive information via
Richelle Harding D. Rohm & ASSOC.	301 SE 83 rd rd Portland, OR 97216 richelledra@ Yahoo.com	<input checked="" type="checkbox"/> E-mail <input type="checkbox"/> U.S. Mail
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