EQCMeeting1of2DOC20070621

Part 1 of 2

OREGON
ENVIRONMENTAL QUALITY
COMMISSION MEETING
MATERIALS 06/21/2007

State of Oregon
Department of Environmental Quality

Insert in EQC binder

KELLY Toneasha

From: LOTTRIDGE Helen [Helen.Lottridge@state.or.us]
Sent: Wednesday, July 11, 2007 10:16 AM
To: KELLY Toneasha
Subject: FW: Today's EQC Meeting

Please make this part of the official record for the June EQC meeting.

Thanks!

Helen

-----Original Message-----
From: KEITH GREEN [mailto:keith_mary4953@msn.com]
Sent: Friday, June 22, 2007 7:47 AM
To: LOTTRIDGE Helen
Subject: Today's EQC Meeting

Dear Ms. Lottridge,

As we understand it, the Commission will meet today and consider Lane Regional Air Protection Agency's request for a 2-year ban on field burning. We urge your office to PLEASE approve of this ban. Field burning is archaic, makes many of us ill for the remainder of the summer, and inhibits tourist use of the western foothills of the Cascades bordering the Willamette valley. Who can see the beauty of the mountains through the smoke, and who wants to try to hike to what should be spectacular views through the smoke? If I was on vacation traveling along I-5, I'd hurry through this area when fields are up in smoke.....It would certainly NOT be an area that I'd want to stop and explore a bit.

There are aesthetic, health and financial reasons why this ban would benefit Oregon rather than be a detriment to the dollars brought in by the remaining 150 farmers who insist on burning. If the rest of the area farmers have

been able to change without huge financial loss, these few remaining should be able to, also. Is it right for 150 people to despoil the countryside, foul the air tens of thousands of us breathe (increasing health care costs), and reduce tourist dollars spent in the area? I would say the financial

gain to OR would be substantial and those of us who breathe this fouled air will all breathe a lot easier this summer!

Thank you for taking time to consider our viewpoint.

Regards,
Keith P. and Mary A. Green
5327 Glenn Ellen Drive
Eugene, OR 97402

Please Sign In

Environmental Quality Commission Meeting
Portland, Oregon June 21, 9:00AM - 4:15PM 6/21 & 22

Name	Organization	Phone/Email
Regina Chichizola	Klamath Riverkeeper	Klamath@riseup.net
Ray Jackson	MWVCoG/SKATS	rjackson@mwvcog.org
LISA HANSON	ODA	lhanson@oda.state.or.us
MARK BAGDOVITZ	U.S. FISH & WILDLIFE SERVICE	503/872-2763
Margaret Filardo	Fish Passage Center	mfilardo@fpc.org
David Wills	USFish & Wildlife Service	david_wills@fws.gov
Dan Feil	BPA	dnfeil@bpa.gov
JOEL SMALLEY	US EPA	503 326 2653
Lynn Matthews	ODA	503 986-4792
Susan Braley	WA Dept of Ecology	360-407-6414
Chris Maynard	WA Dept Ecology	360 407 6484
SCOTT MANZANO	ORDEQ	503-229-5185
CARL MERKLE	CTUIR	541-276-3449
KATHRYN BRIGHAM	CTUIR	541-276-3165
John Sayen	NRU	503 233 5823
Shauna McReynolds	PNUCC	503 294-1264
Tom Haymaker	PNGC	503-288-5550
Kathi VanderZanden	PNGC Power	503-288-5561
Ritchie Graves	NMFS	503-231-6891
Mark Schneider	NMFS	503-231-5414?
Lee Corum	PNUCC	503-294-1259
Bo Downen	PPC	503.595.9772
Liz Hamilton	NSIA	nsializ@aol.com
RICK Lawrence	SOS	503-230-0421, x18
Kathryn VanNatta	NWPPA	NWPPA@QWEST.NET - 503.805.8511
Kathleen Feehan	CTUIR	541-966-2357

Please Sign In

Environmental Quality Commission Meeting
Portland, Oregon June 21, 9:00AM - 4:15PM 6/21 & 22

Name	Organization	Phone/Email
RUDD TURNER	U.S. ARMY CORPS OF ENGINEERS	503-808-3927
Bob Heinith	Col River Inter-tribal Fish Commission	503-238-0667
Bryan Smith	DEQ	503.229.5692
Sarah Greenler	DEQ	503.229.6927
KRISTEN MANSELL	NEDC	Kmansell@nedc.org
[redacted]	[redacted]	[redacted]
Tiffany Zinker	OR Farm Bureau	503.399.1701
Mark Riskedahl	NEDC	msr@nedc.org
Tony Broda	Lane County	
ROB ROCKSTROH	LANE CO. H&HS	541 682-4035
Brenda Wilson	City of Eugene	brenda.s.wilson@ci.eugene.or.us
Kathryn VanNatta	NWPPA	503-805-8511
Dan Gilpern	Western Environmental Law Center	(541) 485-2471
Lisa Arkin	Oregon Toxics Alliance	
Dave Nelson	OR Seed Council	503 585-1157
Mark Bowers	Grass Seed Farmer	541-914-0613
Don Hagan	OR Seed Council	503-224-3092
Kathy Coba	ODA	503-986-4552
Mitch Lies	Capital Press	503-364-4431
Neil Mullane	DEQ-NWR	503-229-5287
Richard Santner	DEQ: NWR	503-229-5219
JOEL SALTER	US EPA	503 326-8326

DRAFT

EQC Meeting Agenda
Thursday, June 21 and Friday, June 22, 2007
World Trade Center – Sky Bridge A & B Meeting Room
Portland, Oregon

Thursday, June 21--*Regular Meeting*

Time	Item	Topic	Presenter/Status
9:00 15 min	A	Preliminary Commission Business: Adoption of Minutes of the February Meeting	
9:15 30 min	B	Informational Item: UMCDF Update	Joni Hammond and Rich Duval
9:45 15 min	C	Greg Geist Heroism Recognition	Lynn Hampton, Nina Deconcini
10:00 45 min	D	Action Item Rule: Title V CPI Adjustment for 2008	Andy
10:45 15 min		Break	
11:00 30 min	E	EQC Involvement Follow Up and Check In	Helen
11:30 45 min	F	Water Quality Fee Increase for Inflation	Lauri
12:15 1 hour 15 min		Working Lunch – Executive Session	
1:30 45 min	G	Salem CO Maintenance Plan	Andy and David
2:15 15 min	H	Extension of MOU with Ag	Scott Manzano
2:30 15 min		Break	
2:45 90 min	I	Total Dissolved Gas	Agnes and Lauri Public Comment-YES
4:15		End of First Day	

Contact: Helen Lottridge (503) 229-6725
Revised 6/11/2007

Friday, June 22--*Regular Meeting*

Time	Item	Topic	Presenter/Status
9:00 2 hours 30 minutes	J	Shilo Inn Appeal	Jane Hickman, Bryan Smith
11:30 45 min	K	Public Forum	
12:15 60 min		Lunch	
1:15 45 min	L	Informational Item: City of Portland Combined Sewer Overflow (CSO) Control Program: Presentation by the City on Current Activities	Dean Marriott City of Portland
2:00 30 min	M	Tax Credits	Maggie
2:30 15 min		Break	
2:45 1 hour 15 min	N	Director's Dialogue and Budget and Legislative Update	Stephanie and Greg and Andree
4:00 15 min.	O	Commissioners' Reports	
4:15		Adjourn	

Contact: Helen Lottridge (503) 229-6725
Revised 6/11/2007

Oregon Environmental Quality Commission Meeting
June 21 – 22, 2007

World Trade Center
121 SW Salmon Street
Sky Bridge A/B Conference Room
Portland, Oregon

Thursday, June 21—Regular meeting begins at 9:00

A. **Preliminary Commission Business: Adoption of Minutes of the April 19 - 20, 2007 Meeting**
The Commission will review, amend if necessary, and approve draft minutes of the April 19 - 20, 2007, Commission meeting.

B. **Informational Item: Update on the Status of the Umatilla Chemical Agent Disposal Facility (UMCDF)**
Joni Hammond, DEQ Eastern Region Division Administrator, and Rich Duval, Administrator of DEQ's Chemical Demilitarization Program will give an update on the status of recent activities at the Umatilla Chemical Agent Disposal Facility (UMCDF). In August 2004, the Commission gave approval to start chemical weapon destruction at UMCDF and DEQ's Chemical Demilitarization Program continues close oversight of work at the facility.
Joni Hammond and Rich Duval, Department of Environmental Quality

C. **Informational Item: Recognition of DEQ Employee Greg Geist's Heroism Award**
Nina Deconcini, Department of Environmental Quality

D. **Rule Adoption: Oregon Title V Operating Permit Program: Consumer Price Index Fee Increase for Fiscal Year 2008 (July 1, 2007 – June 30, 2008)**
Oregon's Title V Operating Permit Program contributes to the prevention of air pollution and helps reduce the number of unhealthy air days and the risks from air toxics. The federal Clean Air Act requires each state's Title V program to be fully funded by permit fees.

The Department of Environmental Quality increases Title V Operating Permit Fees annually, based on the Consumer Price Index. The proposed increase to Title V Operating Permit Fees will help cover the reasonable costs of the Department in implementing Oregon's Title V Operating Permit Program. Failure to adequately fund Oregon's Title V Operating Permit Program could affect the Department's ability to maintain federal approval of the state program.
Andy Ginsburg, Jerry Ebersole and Andrea Curtis of the Department of Environmental Quality

E. **Informational Item: Follow Up on Implementation of the EQC Involvement Report and Watch List of Emerging Issues.**
In December of 2006, the Department of Environmental Quality presented a report and recommendation for supporting and ensuring the Environmental Quality Commission's desired level of involvement in the policy and direction of the agency. The Department will provide a status report and seek feedback from Commissioners about implementation of actions. During the December discussion, the Commission also directed the Department of Environmental Quality to maintain a Watch List of Emerging Issues and to apprise the Commission on what actions the DEQ can provide within the current level of resources. The Department will update the Commission on the Watch List during this discussion.
Helen Lottridge, Department of Environmental Quality

F. **Rule Adoption: Water Quality Permit Fee Increase and Criteria for Termination of Septic Permits**
This proposed rulemaking provides fee revenue for administering DEQ's National Pollutant Discharge Elimination System (NPDES) and Water Pollution Control Facility (WPCF) permit programs, and simplifies regulation of onsite septic systems.
Lauri Aunan, Annette Liebe and Melissa Aerne, Department of Environmental Quality

Working Lunch
The Commission will hold an Executive Session from 12:15 p.m. to 1:30 p.m. to consult with counsel concerning legal rights and duties regarding current or potential litigation against the DEQ. Only representatives of the media may attend and media representatives may not report on any deliberations during the session.[1]

G. **Rule Adoption: Redesignation of the Salem-Keizer Carbon Monoxide Nonattainment Area**
Carbon Monoxide (CO) is a colorless, odorless, poisonous gas produced by incomplete combustion. The Salem-Keizer area easily meets the National Ambient Air Quality Standards (NAAQS) for CO and has done so for over twenty years. However, the area still carries its initial nonattainment area designation and is subject to requirements meant for areas with high CO levels. This CO Maintenance Plan demonstrates to the public that CO levels have been and are expected to remain well within public health standards. The plan also allows the Environmental Protection Agency (EPA) to lift the nonattainment designation for the Salem area and redesignate the area to attainment for CO. Under Oregon law, the Salem-Keizer area would become a CO maintenance area. Redesignating the area to attainment will also change the emission control requirements for new and expanding industry away from the most stringent controls possible to requirements more appropriate for areas with good air quality. Redesignation will also simplify local transportation planning requirements for evaluating air quality impacts of new transportation projects.
Andy Ginsburg, David Collier and Dave Nordberg, Department of Environmental Quality

H. **Action Item: Amendment to Extend Memorandum of Understanding for Confined Animal Feeding Operations**
The Confined Animal Feeding Operation (CAFO) permitting program protects water quality by preventing CAFO wastes from contaminating surface and ground water. In Oregon, wastewater discharges from CAFOs are co-regulated under a Department of Environmental Quality (DEQ) permit administered by the Oregon Department of Agriculture (ODA) under the terms of a Memorandum of Understanding (MOU).

The current MOU authorizing ODA to administer the requirements for the National Pollutant Discharge Elimination System (NPDES) permitting program related to CAFOs expires on June 30, 2007. This amendment extends the MOU until June 30, 2009. By that time, DEQ and ODA intend to renew the existing Confined Animal Feeding Operation NPDES General Permit and modify the MOU as needed to address any changes in permitting approach. Extending the current MOU authorizes ODA to continue administering the NPDES permitting program as provided under Oregon Revised Statute 468B.217 and 2001 Oregon laws Chapter 248.
Lauri Aunan, Annette Liebe, Scott Manzano of the Department of Environmental Quality

I. **Action Item: Request from U.S. Army Corps of Engineers for Renewal of a Waiver to the Total Dissolved Gas Water Quality Standard on the Columbia River**
When water plunges over the spillway of a dam additional air is forced into the water. This results in an amount of total dissolved nitrogen and oxygen gasses that is greater than the saturation amount (greater than the maximum amount which can remain dissolved in water for a long period). Over time, the excess dissolved gas will return to the atmosphere. Until then, the water is referred to as "supersaturated." Total dissolved gas is measured in terms of the percentage of gas in excess of the saturation amount.

Oregon adopted the US Environmental Protection Agency's total dissolved gas standard of 110% of saturation. The 110% of total dissolved gas protects beneficial uses of the Columbia River, including protection of aquatic life and fish, such as endangered and threatened salmonid species.

On November 30, 2006 the Department received a proposal from the U.S. Army Corps of Engineers (ACOE), with USFWS and NOAA Fisheries, requesting a renewal of the waiver to the State's total dissolved gas standard. The two current USFWS and ACOE waivers are being combined into one. The current total dissolved gas waiver issued in 2003 for a five-year period will expire at midnight on August 31, 2007.

The Commission will hear presentations from the Department of Environmental Quality, the Army Corps of Engineers and the US Fish and Wildlife Service, followed by an opportunity for the public to comment on this agenda item. Then, the Environmental Quality Commission will decide whether or not to grant the waiver.
Lauri Aunan, Gene Foster and Agnes Lut of the Department of Environmental Qualit

Friday, June 22—Regular meeting begins at 9:00

J. **Action Item: Contested Case No. WQ/D-ER-06-054 regarding Shilo Management Corporation**
The Oregon Department of Environmental Quality (the Department, or DEQ) implements environmental protection laws. Most people voluntarily comply with the laws; however, sometimes the Department must assess civil penalties and orders to compel compliance or create deterrence. When a person or business does not agree with the Department's enforcement action, they have the right to an appeal and a contested case hearing before an Administrative Law Judge (ALJ).

On April 28, 2006, the Department issued Shilo Management Corporation (Respondent) a Notice of Violation, Department Order and Assessment of Civil Penalty (Notice and Order, Attachment K) alleging three violations. On May 12, 2006, Respondent appealed the Notice and Order, and a contested case hearing was held on October 17, 2006. The ALJ issued an Amended Proposed Order (Attachment G) on November 20, 2006, and on December 15, 2006, the Department appealed the Amended Proposed Order.

The Environmental Quality Commission will hear the Department's appeal and make a determination.
Jane Hickman and Bryan Smith of the Department of Environmental Quality

K. **Public Forum**
The Commission will provide members of the public an opportunity to speak to the Commission on environmental issues that are not part of the agenda, or for which there is otherwise no public testimony at 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.

L. **Informational Item: City of Portland Combined Sewer Overflow (CSO) Control Program: Presentation by the City on Current Activities**
A large part of the City of Portland is served by a combined sewer system that historically discharged large quantities of untreated sewage and storm water to the Columbia Slough and the Willamette River during most rain events. Such overflows are a significant public health and water quality concern.

In 1991, the Commission and the City entered into a legal agreement (Stipulation and Final Order, or SFO) which established the framework for a twenty-year CSO control program that would drastically reduce overflow frequency and volume. The agreement was amended in 1994 (the ASFO).

The City of Portland will provide the Commission with up-to-date information on the implementation of its Combined Sewer Overflow (CSO) control program. Focus will be on major current construction activities and the successful functioning of the recently completed west side Willamette control facilities.
Dean Marriott of the City of Portland Bureau of Environmental Services; Neil Mullane of the Department of Environmental Quality

M. **Action Item: Pollution Control Tax Credit Considerations**
The Environmental Quality Commission's certification entitles the Oregon taxpayer to subtract up to 35 percent of the cost of a pollution control facility from their Oregon tax liability. The Commission approves or denies the certification based on pollution control tax facilities regulations. The Commission will review and act on current applications.
René-Marc Mangin and Maggie Vandehey of the Department of Environmental Quality

N. **Informational Item: Director's Dialogue and Update on Budget and Legislative Outcomes**
Stephanie Hallock and Greg Aldrich will discuss current events and issues involving the Department and provide a budget and legislative update to the Environmental Quality Commissioners.

O. **Commissioners' Reports**

Adjourn

Future Environmental Quality Commission meeting dates for 2007 include:

August 16 – 17 in Northwest Region, location TBD
October 18 – 19 in Western Region, location TBD
December 13 – 14 in Portland

Agenda Notes

* Rule Adoptions: Hearings have been held on Rule Adoption items and public comment periods have closed. In accordance with ORS 183.335(14), no comments may be presented by any party to either the Commission or Department on these items at any time during this meeting.

Staff Reports: Staff reports for each item on this agenda can be viewed and printed from DEQ's Web site at http://www.deq.state.or.us/about/eqc/eqc.htm. To request a particular staff report be sent to you in the mail, contact Toneasha Kelly, Department of Environmental Quality, Director's Office, 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 Ms. Kelly as soon as possible, but at least 48 hours in advance of the meeting.

Public Forum: The Commission will provide time in the meeting during the late morning of Friday, June 22, members of the public to speak to the Commission. 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 the 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.

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.

Lynn Hampton, Chair
Lynn Hampton recently retired as Tribal Prosecutor for the Confederated Tribes of the Umatilla Indian Reservation and previously was Deputy District Attorney for Umatilla County. She received her B.A. at University of Oregon and her J.D. at University of Oregon School of Law. Commissioner Hampton was appointed to the EQC in July 2003 and lives in Pendleton.

Ken Williamson, Commissioner
Ken Williamson is head of the Department of Civil, Construction and Environmental Engineering at Oregon State University and serves as Co-Director of the Center for Water and Environmental Sustainability. He received his B.S. and M.S. at Oregon State University and his Ph.D. at Stanford University. Commissioner Williamson was appointed to the EQC in February 2004 and he lives in Corvallis.

Judy Uherbelau, Commissioner
Judy Uherbelau is a graduate of Ball State University with a B.S. in Economics/Political Science. She received a J.D. from UCLA School of Law and recently closed her law practice with Thomas C. Howser, PC in Ashland. Judy served in the Peace Corps and the Oregon House of Representatives as well as numerous boards and commissions. Commissioner Uherbelau was appointed to the EQC in February 2005 and lives in Ashland.

Donalda Dodson, Commissioner
Donalda Dodson is currently Interim Executive Director of the Oregon Child Development Coalition. Previously, she served as Administrator of the Department of Human Services Office of Family Health and as Manager of the Maternal/Child Health Program at the Marion County Health Department. Donalda has a Bachelor of Science degree in nursing and a master's degree in public health. She has chaired or served on nearly a dozen public health committees and task forces and expresses a strong interest in bringing environmental issues into the public health arena. Commissioner Dodson resides in Salem.

Bill Blosser, Vice Chair
Bill Blosser is owner of William Blosser Consulting. He is employed by, and has held several positions with CH2M Hill in Portland. Bill served as Director of the Oregon Department of Land Conservation and Development from 2001-2002 and was formerly president of Sokol Blosser Winery in Dundee, Oregon. Bill has served on and chaired numerous commissions and task forces, including terms as chair of the Water Resources Commission, chair of the Land Conservation and Development Commission and chair of the Policy Advisory Committee on Water Quality to the EQC. Bill has a Bachelor of Arts degree in history and humanities from Stanford University and a master's degree in regional planning from the University of North Carolina, Chapel Hill. Commissioner Blosser was appointed to the EQC in January 2006 and lives in Portland.

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

Helen Lottridge, Assistant to the Commission
Telephone: (503) 229-6725

[1] This executive session will be held pursuant to ORS 192.660(1)(h) and ORS 192.660(1)(i).

Approved __
Approved with Corrections___

Minutes are not final until approved by the Commission.

Oregon Environmental Quality Commission Meeting
April 19 – 20, 2007

Regular Meeting[1]

The Environmental Quality Commission (EQC, Commission) held a public meeting on April 19 - 20, 2007, at the Riverhouse Resort, 3075 N Highway 97, Bend, Oregon 97701, in the Big Deschutes Meeting Room/Deschutes C

The following members of the Environmental Quality Commission were present:

Bill Blosser, Vice Chair, acting as Chair for Lynn Hampton, who was unable to attend
Kenneth Williamson, Member
Judy Uherbelau, Member
Donalda Dodson, Member

Thursday, April 19—Regular meeting began at 9:00

A. Preliminary Commission Business: Adoption of Minutes of the February 22 – 23, 2007 Meeting

After reviewing the minutes of the February 22 – 23, 2007, Commission meeting, Commissioner Uherbelau moved that the minutes be adopted as submitted; Commissioner Williamson seconded, and the motion passed unanimously.

B. Informational Item: Update on the Status of the Umatilla Chemical Agent Disposal Facility (UMCDF)

Joni Hammond, DEQ Eastern Region Division Administrator, and Rich Duval, Administrator of DEQ's Chemical Demilitarization Program gave an update on the status of recent activities at the Umatilla Chemical Agent Disposal Facility (UMCDF). In August 2004, the Commission gave approval to start chemical weapon destruction at UMCDF and DEQ's Chemical Demilitarization Program continues close oversight of work at the facility.

Immediately following the update, Vice-Chair Blosser congratulated Joni Hammond, Eastern Region Administrator, on completing 20 years of service.

[1] The staff reports for this meeting can be viewed and printed from DEQ's Web site at http://www.deq.state.or.us/about/eqc/eqc.htm. To request a copy to be sent by mail, contact DEQ, Office of the Director, Helen Lottridge, 811 SW Sixth Avenue, Portland, Oregon 97204; phone: (503) 229-5990.

C. Action Item: Review and Approval of Sewage System Plans at Windmaster Corners
Windmaster Corners, an area outside the Urban Growth Boundary (UGB) of the City of Hood River has an ongoing public health concern due to failing onsite waste systems. Hood River County filed a resolution seeking the creation of a sanitary district that would serve this area near the Hood River Airport. Following a discussion of the issues, Commissioner Williamson moved to find that the proposed facilities and schedule adequately remove or alleviate the dangerous conditions at Windmaster Corners under ORS 431.720; Commissioner Uherbelau seconded the motion, which passed unanimously.

At approximately 10:30, the Commission began a tour of the area to see and hear about forest management practices and smoke management efforts. The Environmental Quality Commissioners toured the Metolius Heritage Demonstration Area with several members of the USDA Forest Service, Oregon Dept. of Forestry, The Nature Conservancy, and Friends of the Metolius. Topics discussed included forest management practices and fire ecology, how to conduct a prescribed burn under Oregon's Smoke Management Plan, biomass utilization, and different forest treatment techniques in the demonstration area.

Town Hall Meeting
The Commissioners hosted a public town hall meeting from 6:00 – 7:30 p.m. at the Riverhouse Resort, Big Deschutes Meeting Room C. About 20 people attended and discussed various environmental matters with the Commission and the Department. The predominant issue had to do with onsite septic systems in La Pine. Notes taken at the Town Hall are attached and are part of these minutes.

Friday, April 20—Regular meeting began at 9:00

Prior to taking up the next agenda items, the Commissioners offered some individual reflections on the La Pine issue as discussed at the Town Hall meeting on Thursday evening, and requested that the Department update the Commissioners at their next meeting.

D. Informational Item: Oregon Smoke Management Program
The Department of Environmental Quality and the Department of Forestry (ODF) presented information about the ODF's Smoke Management Plan, including the role of the Commission, legal requirements and recent smoke events in La Grande and Florence.

The Commission invited public comment on this topic:
John Elliott, Klamath County Commissioner, voiced his concern about smoke intrusions in Klamath County, and encouraged alternatives to burning.
Gregory McClarren, Smoke Management Plan Review Committee, and the local Clean Air Committee, emphasized the importance of coordinated, collaborative approaches to smoke management.
Merlyn Hough, Lane Regional Air Protection Agency (LRAPA), urged that the city of Florence be added as a Smoke Sensitive Receptor Area, and also supports reduction of burning through biomass re-utilization.
Mike Dykzeul, Oregon Forest Industries Council, offered to be a resource for the

Commission, including tour opportunities in Western Oregon for the Commission or individual members.

David Cramsey, Roseburg Forest Products, commented on the effects of population growth on higher risk of fires starting and unhealthy impacts at the wrong time of year.

Harold Merritt, Plum Creek Timberlands, observed that the old Smoke Management Plan was not a failure. It met its goals. The smoke intrusion at La Grande was not a failure of the plan; it was a failure to follow the plan. There is a need to consider all sources of smoke. Mr. Merritt supports the new Smoke Management Plan.

Jim Russell, USDA Forest Service/ Bureau of Land Management, welcomed a strong smoke management program. BLM is happy to come to the table. The La Grande incident hurts; it was a problem with following the plan, not the plan itself.

Following the public comments, the Commissioners and Barbara Craig, Board of Forestry member, discussed various smoke management issues. Board Member Craig noted that better support for funding is needed. The Board of Forestry takes the Clean Air Act very seriously. Commissioner Uherbelau urged increased public involvement. Vice Chair Blosser directed staff to make sure they have looked at other coverings besides plastic, as an alternative to burning plastic with slash piles; emphasizing it is important to make sure use of plastic needs to be discussed as part of rulemaking on the Smoke Management Plan.

Working Lunch

The Commission held Executive Session from about 11:45 p.m. to 12:45 p.m. to consult with counsel concerning legal rights and duties regarding current or potential litigation against the Department. No media representatives attended.[2]

E. Informational Item: Update on Mercury Recovery Efforts

The Department presented an update and status report on mercury recovery efforts.

F. Public Forum

The Commission provided members of the public an opportunity to speak to them on environmental issues that were not part of the agenda, or for which there was otherwise no public testimony at this meeting. In accordance with ORS 183.335(13), no comments may be presented on Rule Adoption items for which public comment periods have closed.

Four citizens offered comments:

Michael Neary commented that there is at least a potential problem in La Pine, and something should be done. The best way is for citizens to be involved in the development of a solution. Studies are underway; when they are completed, there needs to be time for citizens to review and do their own studies. There needs to be a solution everyone is behind.

Sandra Neary questioned under what circumstances or criteria can the contract between DEQ and Deschutes County be revoked. EQC Counsel Larry Knudsen noted that Deschutes County is DEQ's agent, but that the County has its own authority as well. Even if DEQ were to revoke the contract, the County ordinance would still apply, unless it falls below DEQ's minimum standards.

Diane Shufelberger stated that the Deschutes County public notice was vague and that the

[2] This executive session was held pursuant to ORS 192.660(1)(h) and ORS 192.660(1)(i).

average person was not able to understand it. What is the underlying reason it's just La Pine? Someone should investigate hot spots in the area. Many citizens want a cluster system. John Boyle reported that he had 20,000 votes, even though he lost the last election for Deschutes County Commissioner, and represents the thoughts of potentially as many citizens. There is taxation without representation in La Pine. There is no one to represent citizens. The current situation is a rip-off of La Pine. They need to stop big developments.

G. Informational Item: Director's Dialogue

Dick Pedersen, DEQ Deputy Director, discussed current events and issues involving the Department and the state with Commissioners.

H. Commissioners' Reports

Commissioner Williamson spent the last week at two national biomass meetings. The United States is committed to replace about 30% of the gasoline supply with corn. Present production is about 5 billion gallons per year, while future production will be about 35 billion gallons per year. Corn prices will rise to about $4.35 per bushel. One gallon per year in gasoline capacity costs about $2.

Beyond the 15 billion gallons, we will look to cellulosic biomass, including all waste from agricultural products, switch grasses that don't need water and municipal solid waste. We will probably have to separate our solid waste. We will reprocess nearly all municipal solid waste in this country, separate it and ship it elsewhere for use.

China is going to base much of their economy on waste, especially waste polyethylene. Dow is developing a biodegradable plastic. It is five times as expensive, but now we can make biodeisel out of it.

The biggest problem with large-scale biodeisel is not having corn for food aid. One billion people depend on the United States for food aid. It gets exported as corn. We need to change the law to allow exporting as money.

The price of beef will double in about two years.

Ethanol in the fuel supply will be mandated. Virtually all biomass waste in the United States will be converted into ethanol.

The meeting was adjourned.

Town Hall Meeting
Hosted by the Environmental Quality Commission in Bend, Oregon
April 19, 2007
Open to the Public

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Here is a transcription of the notes of all comments made during the meeting:

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- Regarding the meetings with Deschutes County and the Department of Environmental Quality on the La Pine topic, citizens are confused about the overlap of responsibility. Is it the county's authority to make decisions and does DEQ stand back? Who has the authority to set the standard?
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- What is the priority for homes not on the sewer that Bend promised a city sewer to? There are a lot of homes using drill holes for sewage disposal. 4-5-6 homes were bypassed. DEQ is working with the City of Bend on this problem.
- Housing developments mess up the air quality. It's got to stop, or our environment will be like China's.
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- A Goal 11 exception is needed to establish a sewer district.
- People don't know about this and they distrust the county.
- We want to know what the problem is. What are nitrates doing to us? We can't find out. We're in the dark.
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- Studies aren't complete, yet CDD is trying to get the rule passed.
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For more information about the Environmental Quality Commission meeting, refer to the minutes.

Approved __
Approved with Corrections___

Minutes are not final until approved by the Commission.

Oregon Environmental Quality Commission Meeting
April 19 – 20, 2007

Regular Meeting[1]

The Environmental Quality Commission (EQC, Commission) held a public meeting on April 19 - 20, 2007, at the Riverhouse Resort, 3075 N Highway 97, Bend, Oregon 97701, in the Big Deschutes Meeting Room/Deschutes C

The following members of the Environmental Quality Commission were present:

Bill Blosser, Vice Chair, acting as Chair for Lynn Hampton, who was unable to attend
Kenneth Williamson, Member
Judy Uherbelau, Member
Donalda Dodson, Member

Thursday, April 19—Regular meeting began at 9:00

A. Preliminary Commission Business: Adoption of Minutes of the February 22 – 23, 2007 Meeting

After reviewing the minutes of the February 22 – 23, 2007, Commission meeting, Commissioner Uherbelau moved that the minutes be adopted as submitted; Commissioner Williamson seconded, and the motion passed unanimously.

B. Informational Item: Update on the Status of the Umatilla Chemical Agent Disposal Facility (UMCDF)

Joni Hammond, DEQ Eastern Region Division Administrator, and Rich Duval, Administrator of DEQ's Chemical Demilitarization Program gave an update on the status of recent activities at the Umatilla Chemical Agent Disposal Facility (UMCDF). In August 2004, the Commission gave approval to start chemical weapon destruction at UMCDF and DEQ's Chemical Demilitarization Program continues close oversight of work at the facility.

Immediately following the update, Vice-Chair Blosser congratulated Joni Hammond, Eastern Region Administrator, on completing 20 years of service.

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[1] The staff reports for this meeting can be viewed and printed from DEQ's Web site at http://www.deq.state.or.us/about/eqc/eqc.htm. To request a copy to be sent by mail, contact DEQ, Office of the Director, Helen Lottridge, 811 SW Sixth Avenue, Portland, Oregon 97204; phone: (503) 229-5990.

C. Action Item: Review and Approval of Sewage System Plans at Windmaster Corners

Windmaster Corners, an area outside the Urban Growth Boundary (UGB) of the City of Hood River has an ongoing public health concern due to failing onsite waste systems. Hood River County filed a resolution seeking the creation of a sanitary district that would serve this area near the Hood River Airport. Following a discussion of the issues, Commissioner Williamson moved to find that the proposed facilities and schedule adequately remove or alleviate the dangerous conditions at Windmaster Corners under ORS 431.720; Commissioner Uherbelau seconded the motion, which passed unanimously.

At approximately 10:30, the Commission began a tour of the area to see and hear about forest management practices and smoke management efforts. The Environmental Quality Commissioners toured the Metolius Heritage Demonstration Area with several members of the USDA Forest Service, Oregon Dept. of Forestry, The Nature Conservancy, and Friends of the Metolius. Topics discussed included forest management practices and fire ecology, how to conduct a prescribed burn under Oregon's Smoke Management Plan, biomass utilization, and different forest treatment techniques in the demonstration area.

Town Hall Meeting

The Commissioners hosted a public town hall meeting from 6:00 – 7:30 p.m. at the Riverhouse Resort, Big Deschutes Meeting Room C. About 20 people attended and discussed various environmental matters with the Commission and the Department. The predominant issue had to do with onsite septic systems in La Pine. Notes taken at the Town Hall are attached and are part of these minutes.

Friday, April 20—Regular meeting began at 9:00

Prior to taking up the next agenda items, the Commissioners offered some individual reflections on the La Pine issue as discussed at the Town Hall meeting on Thursday evening, and requested that the Department update the Commissioners at their next meeting.

D. Informational Item: Oregon Smoke Management Program

The Department of Environmental Quality and the Department of Forestry (ODF) presented information about the ODF's Smoke Management Plan, including the role of the Commission, legal requirements and recent smoke events in La Grande and Florence.

The Commission invited public comment on this topic:
John Elliott, Klamath County Commissioner, voiced his concern about smoke intrusions in Klamath County, and encouraged alternatives to burning.
Gregory McClarren, Smoke Management Plan Review Committee, and the local Clean Air Committee, emphasized the importance of coordinated, collaborative approaches to smoke management.
Merlyn Hough, Lane Regional Air Protection Agency (LRAPA), urged that the city of Florence be added as a Smoke Sensitive Receptor Area, and also supports reduction of burning through biomass re-utilization.
Mike Dykzeul, Oregon Forest Industries Council, offered to be a resource for the

Commission, including tour opportunities in Western Oregon for the Commission or individual members.
David Cramsey, Roseburg Forest Products, commented on the effects of population growth on higher risk of fires starting and unhealthy impacts at the wrong time of year.
Harold Merritt, Plum Creek Timberlands, observed that the old Smoke Management Plan was not a failure. It met its goals. The smoke intrusion at La Grande was not a failure of the plan; it was a failure to follow the plan. There is a need to consider all sources of smoke. Mr. Merritt supports the new Smoke Management Plan.
Jim Russell, USDA Forest Service/ Bureau of Land Management, welcomed a strong smoke management program. BLM is happy to come to the table. The La Grande incident hurts; it was a problem with following the plan, not the plan itself.

Following the public comments, the Commissioners and Barbara Craig, Board of Forestry member, discussed various smoke management issues. Board Member Craig noted that better support for funding is needed. The Board of Forestry takes the Clean Air Act very seriously. Commissioner Uherbelau urged increased public involvement. Vice Chair Blosser directed staff to make sure they have looked at other coverings besides plastic, as an alternative to burning plastic with slash piles; emphasizing it is important to make sure use of plastic needs to be discussed as part of rulemaking on the Smoke Management Plan.

Working Lunch
The Commission held Executive Session from about 11:45 p.m. to 12:45 p.m. to consult with counsel concerning legal rights and duties regarding current or potential litigation against the Department. No media representatives attended.[2]

E. Informational Item: Update on Mercury Recovery Efforts
The Department presented an update and status report on mercury recovery efforts.

F. Public Forum
The Commission provided members of the public an opportunity to speak to them on environmental issues that were not part of the agenda, or for which there was otherwise no public testimony at this meeting. In accordance with ORS 183.335(13), no comments may be presented on Rule Adoption items for which public comment periods have closed.

Four citizens offered comments:
Michael Neary commented that there is at least a potential problem in La Pine, and something should be done. The best way is for citizens to be involved in the development of a solution. Studies are underway; when they are completed, there needs to be time for citizens to review and do their own studies. There needs to be a solution everyone is behind.
Sandra Neary questioned under what circumstances or criteria can the contract between DEQ and Deschutes County be revoked. EQC Counsel Larry Knudsen noted that Deschutes County is DEQ's agent, but that the County has its own authority as well. Even if DEQ were to revoke the contract, the County ordinance would still apply, unless it falls below DEQ's minimum standards.
Diane Shufelberger stated that the Deschutes County public notice was vague and that the

[2] This executive session was held pursuant to ORS 192.660(1)(h) and ORS 192.660(1)(i). .

average person was not able to understand it. What is the underlying reason it's just La Pine? Someone should investigate hot spots in the area. Many citizens want a cluster system. John Boyle reported that he had 20,000 votes, even though he lost the last election for Deschutes County Commissioner, and represents the thoughts of potentially as many citizens. There is taxation without representation in La Pine. There is no one to represent citizens. The current situation is a rip-off of La Pine. They need to stop big developments.

G. Informational Item: Director's Dialogue

Dick Pedersen, DEQ Deputy Director, discussed current events and issues involving the Department and the state with Commissioners.

H. Commissioners' Reports

Commissioner Williamson spent the last week at two national biomass meetings. The United States is committed to replace about 30% of the gasoline supply with corn. Present production is about 5 billion gallons per year, while future production will be about 35 billion gallons per year. Corn prices will rise to about $4.35 per bushel. One gallon per year in gasoline capacity costs about $2.

Beyond the 15 billion gallons, we will look to cellulosic biomass, including all waste from agricultural products, switch grasses that don't need water and municipal solid waste. We will probably have to separate our solid waste. We will reprocess nearly all municipal solid waste in this country, separate it and ship it elsewhere for use.

China is going to base much of their economy on waste, especially waste polyethylene. Dow is developing a biodegradable plastic. It is five times as expensive, but now we can make biodeisel out of it.

The biggest problem with large-scale biodeisel is not having corn for food aid. One billion people depend on the United States for food aid. It gets exported as corn. We need to change the law to allow exporting as money.

The price of beef will double in about two years.

Ethanol in the fuel supply will be mandated. Virtually all biomass waste in the United States will be converted into ethanol.

The meeting was adjourned.

Town Hall Meeting
Hosted by the Environmental Quality Commission in Bend, Oregon
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State of Oregon
Department of
Environmental
Quality

Umatilla Chemical Demilitarization Program
Status Update
Environmental Quality Commission
June 21-22, 2007
(Agenda Item B)

Agent Processing at the Umatilla Chemical Agent Disposal Facility (UMCDF)

As of June 11, 2007, the UMCDF has treated almost 81% of the 155 mm projectiles stored at the Umatilla Chemical Depot (38,212 of 47,406) and is expected to complete the GB campaign by the end of July. GB secondary waste processing has been halted in response to the April 17, 2007, ruling by the Multnomah County Circuit Court that remanded several issues to the Commission.

The UMCDF has destroyed over 146,000 munitions and bulk containers filled with about 1.97 million pounds of GB nerve agent. This represents approximately:

- 94% of the GB munitions (146,345 out of the original 155,539)
- 97% of the GB agent (986 tons out of the original 1,015 tons of GB)
- 66% of all Umatilla munitions and bulk containers
- 27% of the original Umatilla stockpile (by agent weight)

Approximately 44% of the nation's original chemical agent stockpile (by weight) has been destroyed, putting the country on track to meet the requirements of the Chemical Weapons Convention (CWC) treaty to destroy at least 45% of the stockpile by December 2007.

Other Chemical Demilitarization Program News

The DEQ's Umatilla Chemical Demilitarization Program in Hermiston has been undergoing some staff changes in recent months. Kelly Hodney, formerly with the Washington Demilitarization Company's Environmental Department, started in mid-May as a Sr. Hazardous Waste Specialist. Kelly Taylor, formerly with the Southwest Research Institute (the laboratory at the UMCDF), started in early June as an Air Quality Compliance and Permit Specialist. Doug Welch, the former Air Quality Specialist with the Umatilla Program has transferred back to the Eastern Region Air Quality Program in Pendleton. Sue Oliver, Sr. Chemical Demilitarization Specialist, resigned her position on June 20 after more than 13 years with the Umatilla Program.

Permit Modification Requests (PMRs) for the Umatilla Chemical Depot (UMCD)

- The Class 2 PMR received on March 20, 2007, from the Umatilla Chemical Depot (UMCD) to "*Incorporate the I-Block Storage Facility Closure Plan*" into the UMCD Hazardous Waste (HW) Storage Permit PMR [UMCD-07-002-IBLK(2]) is under review. I-Block includes the igloos that were used to store the mustard ton containers, which have now been moved to K-Block. The closure plan describes how the I-Block igloos will be decontaminated and the sampling and analysis procedures that will be used to meet closure requirements for

hazardous waste management units. No public comments were received during the comment period.

- One permit modification notice (PMN) was submitted by the UMCD between April 12, 2007, and June 10, 2007. PMN UMCD-07-002-MISC(1N), *"Revision of Containerized Waste Segregation Requirements in the J-Block,"* received April 19, 2007, made an administrative change to allow the use of containers to segregate waste in J-Block versus requiring the use of separate igloos or isolating areas of the igloos. This PMN was reviewed and accepted by the Department on May 8, 2007.

Permit Modification Requests (PMRs) for the UMCDF

Submitted:

- On April 12, 2007, the UMCDF submitted PMR UMCDF-07-001-WAP(2), *"Waste Analysis Plan Changes."* This Class 2 PMR proposes numerous revisions to the Waste Analysis Plan (WAP), most designed to lessen the sampling and analysis burden imposed by the current WAP on the Permittees by relying much more on process knowledge and data from other stockpile sites to determine if a waste is agent-free and if furnace feed limitations, especially for metals, are being complied with. The public comment period closed on June 11, 2007. The Department is reviewing the public comments from the Confederated Tribes of the Umatilla Indian Reservation (CTUIR) and Morrow County. Ms. Karyn Jones of GASP requested, and was granted, a two-week extension to file comments from GASP.
- On May 17, 2007, the UMCDF submitted the Class 2 PMR UMCDF-07-024-CONT(2), *"Annual Review and Revision of the Contingency Plan."* This PMR was submitted to remove unnecessary information from the Contingency Plan (information not specifically required by state or federal regulations). The public comment period is open until July 14, 2007.
- The UMCDF submitted two Class 1 PMNs from April 12 to June 10, 2007: UMCDF-07-020-MISC(1N), *"Miscellaneous As-Built Changes,"* on April 26, 2007, and UMCDF-07-026-MISC(1N), *"Toxic Cubicle Sump Management,"* on May 15, 2007.

Approved:

- The Class 1 PMR UMCDF-07-015-WAST(1R), *"Conversion of Toxic Maintenance Area (TMA) Room 12-177 for Carbon Change Out"* was approved with changes on May 3, 2007.
- The Class 1 PMR UMCDF-07-023-LIC(1R), *"LIC2 Operational Parameter Changes"* was approved on May 15, 2007.
- The Department completed its review and accepted four Class 1 PMNs:
  - UMCDF-07-003-MDB(1N), *Hot Water Pressure Washers As-Built;*
  - UMCDF-07-004-PAS(1N), *NOx Monitoring Changes As-Built*;
  - UMCDF-07-016-MISC(1N), *Redline Annual Update for Furnaces*;
  - UMCDF-07-021-LIC(1N), *LIC2 Alarm & Interlock Matrix Update*; and
  - UMCDF-07-026-MISC(1N), *Toxic Cubicle Sump Management.*

In Process:

In addition to the two Class 2 PMRs submitted during this period, the following PMRs are under department review.

- The public comment period for PMR UMCDF-07-019-PFS(2), "*PFS Carbon Change-Out Conditions,*" closed on May 29, 2007. The Department received three public comments during the comment period (from the CTUIR, Morrow County, and GASP). This Class 2 PMR proposes to remove the requirement that the carbon in the Pollution Abatement Systems Carbon Filter Systems (PFS) be changed out prior to the start of a new agent campaign. The CTUIR did not object to the PMR, provided certain conditions (especially agent monitoring before and after the filter units) were met. Morrow County and GASP both objected to the proposed change.
- The public comment period for the Class 2 PMR UMCDF-07-014-MPF(2), "*Metal Parts Furnace (MPF) Discharge Airlock (DAL) Low-Temperature Monitoring Changes*" closed on April 23, 2007. The Department received four public comments from CTUIR, GASP, Morrow County, and Umatilla County. All four commenters were opposed to the PMR's proposal to eliminate the requirement to conduct low-temperature agent monitoring of the MPF DAL when processing secondary waste. The decision deadline for this PMR has been extended to August 17, 2007.
- The public comment period for the Class 2 PMR UMCDF-07-005-MISC(2), "*Condition II.M-Liability Insurance Requirement Changes*" closed on April 2, 2007. The Department received three public comments during the comment period (from CTUIR, Morrow County, and GASP), and one comment (from Umatilla County) after the close of the comment period. All of the commenters opposed the request to eliminate the permit condition imposed by the EQC in 1998 requiring Washington Demilitarization Company to maintain more than the minimum amount of insurance coverage specified by regulation. The decision date on this PMR has been extended to July 30, 2007.
- The public comment period for PMR UMCDF-06-049-MON(2), "*Multiagent Monitoring for GB/VX Operations*" closed on February 26, 2007. This Class 2 PMR proposes changes to support air monitoring for both GB and VX chemical agents. The Department requested additional information from the UMCDF to support the request, to include review and approval of the proposed agent monitoring schemes by the Centers for Disease Control (the CDC is a designated "independent oversight agency" for chemical agent monitoring issues). One public comment was received from the CTUIR. The decision deadline for this PMR was extended to July 13, 2007.
- The public comment period for PMR UMCDF-07-006-DFS(3TA), "*Minimum Temperature Limit Change on the Deactivation Furnace System*" closed on March 19, 2007. The Department received one public comment from the CTUIR objecting to the proposed change unless additional supporting data could be provided. This Class 3 PMR proposes to change the minimum automatic waste feed cut-off temperature setpoint on the Deactivation Furnace System (DFS) from 1,000°F to 950°F during the treatment of projectile bursters. The Department expects to make a decision on this PMR by July 15, 2007.

- There are two additional Class 3 PMRs under review: UMCDF-06-010-CMP(3), "*Comprehensive Monitoring Program Sampling and Analysis Changes,*" and UMCDF-05-034-WAST(3), "*Deletion of the Dunnage Incinerator and Addition of the Carbon Micronization System.*" The review of both these PMRs has been put on temporary hold due to higher priority PMRs in process.
- The Class 1 PMR UMCDF-07-017-WAST(1R), "*VX/HD Scrap Metal Recycling,*" is under review.

Permit Modification Requests Withdrawn by the Permittees:

- The UMCDF withdrew PMR UMCDF-07-009-HVC(2), "*MDB Carbon Filter System Agent Changeover Conditions,*" on May 30, 2007. This Class 2 PMR proposed to eliminate the requirement to replace the carbon in MDB filters before the start of the VX agent processing campaign and to modify the chemical agent monitoring scheme for the filter units.
- The UMCDF withdrew the Class 1 Permit Modification Request (PMR) UMCDF-07-018-HVC(1R), "*MDB HVC Single-Point Monitoring,*" on May 30, 2007.

Significant Events at Other Demilitarization Facilities

Anniston Chemical Agent Disposal Facility (ANCDF), Alabama

The ANCDF received its first shipment of VX 155 mm artillery projectiles on June 3, 2007, after a three-month shutdown to reconfigure the facility from rocket to projectile processing. As of June 11, 2007, the ANCDF has processed 454 VX projectiles (out of the original 139,581).

Newport Chemical Agent Disposal Facility (NECDF), Indiana

As of March 20, 2007, the NECDF has neutralized 1,361,676 pounds (161,341 gallons) of VX (approximately 54% of the original Newport stockpile). On April 16, 2007, the NECDF began shipment of the hydrolysate (previously being stored on site in containers) to Veolia Environmental Services in Port Arthur, Texas, for disposal by incineration. On May 8, 2007, the Sierra Club, the Chemical Weapons Working Group, and others filed a Complaint with the U.S. District Court in Indiana alleging that the shipments are an imminent hazard and violate numerous state and federal laws, including the prohibition of interstate transportation of chemical warfare agents. See the Complaint at http://www.cwwg.org/Complaint05.08.07.pdf.

Pine Bluff Chemical Agent Disposal Facility (PBCDF), Arkansas

The PBCDF resumed GB rocket processing on May 8, 2007, after an extended maintenance shutdown of the Deactivation Furnace System that began on March 24, 2007. On May 19, 2007, the PBCDF destroyed the last of its 90,409 GB rockets, representing 13% of its original chemical agent stockpile. The facility is now preparing for the processing of VX rockets and mines, expected to begin in late 2007.

Tooele Chemical Agent Disposal Facility (TOCDF), Utah

As of May 13, 2007, TOCDF has processed 1,209 ton containers containing HD mustard (blister) agent, 17% of the HD ton containers stored at the Deseret Chemical Depot. Processing continues to be limited to only those ton containers that show a concentration of 1 ppm or less of mercury contamination. Work continues on designing a carbon filtration system that will provide sufficient flue gas mercury removal to allow the processing of mustard that has been

determined to have mercury concentrations in excess of 1 ppm. TOCDF has now processed about 63 % of the original stockpile stored at the Deseret Chemical Depot.

Pueblo Chemical Agent Destruction Pilot Plant (PCAPP), Colorado
Blue Grass Chemical Agent Destruction Pilot Plant (BGCAPP), Kentucky

The design for the Pueblo Chemical Agent Destruction Pilot Plant was declared "final" on May 10, 2007, by the Bechtel Pueblo Team and the U.S. Department of Defense Program Manager for Assembled Chemical Weapons Alternatives. Road and fencing work has been completed at Pueblo, and work continues on site grading and the early phases of construction. Site preparation and utility installation also continues at the Blue Grass stockpile site.

Chemical Weapons Destruction Program
Glossary of Acronyms and Terms of Art

ABCDF – Aberdeen Chemical Agent Disposal Facility, located at the Aberdeen Proving Grounds in Maryland

ACAMS – Automatic Continuous Air Monitoring System – the chemical agent monitoring instruments used by the Army to provide low-level, near real time analysis of chemical agent levels in the air

ANCDF – Anniston Chemical Agent Disposal Facility, located at Anniston Army Depot in Alabama

ATB – agent trial burn – test burns on incinerators to demonstrate compliance with emission limits and other permit conditions

AWFCO instrument– Automatic Waste Feed Cutoff – an instrument that monitors key operating parameters of a high temperature incinerator and automatically shuts off waste feed to the incinerator if prescribed operating limits are exceeded

BGCA – Blue Grass Chemical Activity, located at the Blue Grass Army Depot in Kentucky

BRA – Brine Reduction Area – the hazardous waste treatment unit that uses steam evaporators and drum dryers to convert the salt solution (brine) generated from pollution abatement systems on the incinerators into a dry salt that is shipped off-site to a hazardous waste landfill for disposal

CAC – Chemical Demilitarization Citizens Advisory Commission – the nine member group appointed by the Governor to receive information and briefings and provide input and express concerns to the U.S. Army regarding the Army's ongoing program for disposal of chemical agents and munitions – each state with a chemical weapons storage facility has its own CAC – in Oregon the DEQ's Chemical Demilitarization Program Administrator and the Oregon CSEPP Manager serve on the CAC as non-voting members

CAMDS – Chemical Agent Munitions Disposal System – the former research and development facility for chemical weapons processing, located at the Deseret Chemical Depot in Utah

CDC – Centers for Disease Control and Prevention – a federal agency that provides oversight and technical assistance to the U.S. Army related to chemical agent monitoring, laboratory operations, and safety issues at chemical agent disposal facilities (Website: http://www.cdc.gov/nceh/demil/)

CMA – U.S. Army's Chemical Materials Agency, the agency responsible for chemical weapons destruction (website: http://www.cma.army.mil/)

CMS – carbon micronization system – a new treatment system that is proposed to be used in conjunction with the deactivation furnace system to process spent carbon generated at UMCDF during facility operations – the CMS would pulverize the spent carbon and then inject the powder into the deactivation furnace system for thermal treatment to destroy residual chemical agent adsorbed onto the carbon

CSEPP – Chemical Stockpile Emergency Preparedness Program – the national program that provides resources for local officials (including emergency first responders) to provide protection to people living and working in proximity to chemical weapons storage facilities and to respond to emergencies in the event of an off-post release of chemical warfare agents (Website: http://csepp.net/)

CWWG – Chemical Weapons Working Group, an international organization opposed to incineration as a technology for chemical weapons destruction and a proponent of alternative technologies, such as chemical neutralization (Website: http://www.cwwg.org/)

DAAMS – Depot Area Air Monitoring System – the system that is utilized for perimeter air monitoring at chemical weapons depots and to confirm or refute ACAMS readings at chemical agent disposal facilities – samples are collected in tubes of sorbent materials and taken to a laboratory for analysis by gas chromatography

DCD – Deseret Chemical Depot – the chemical weapons depot located in Utah

DFS – deactivation furnace system – a high temperature incinerator (rotary kiln with afterburner) used to destroy rockets and conventional explosives (e.g., fuses and bursters) from chemical weapons

DPE – demilitarization protective ensemble – the fully-encapsulated personal protective suits with supplied air that are worn by workers in areas with high levels of agent contamination

DUN – dunnage incinerator – high temperature incinerator included in the original UMCDF design and intended to treat secondary process wastes generated from munitions destruction activities – this incinerator was never constructed at UMCDF

ECR – Explosive Containment Room – UMCDF has two ECRs used to process explosively configured munitions. ECRs are designed with reinforced walls, fire suppression systems, pressure sensors, and automatic fire dampers to detect and contain explosions and/or fire that might occur during munitions processing

EONC – Enhanced Onsite Container – Specialized vessel used for the transport of munitions and bulk items from UNCD to UMCDF and for the interim storage of those items in the UMCDF Container Handling Building until they are unpacked for processing

G.A.S.P. – a Hermiston-based anti-incineration environmental group that has filed multiple lawsuits in opposition to the use of incineration technology for the destruction of chemical weapons at the Umatilla Chemical Depot – G.A.S.P. is a member of the Chemical Weapons Working Group

GB – the nerve agent sarin

HD – the blister agent mustard

HVAC – heating, ventilation, and air conditioning

HW – hazardous waste

I-Block – the area of storage igloos where ton containers of mustard agent are stored at UMCD

IOD – integrated operations demonstration – part of the Operational Readiness Review process when UMCDF demonstrates the full functionality of equipment and operators prior to the start of a new agent or munition campaign.

JACADS – Johnston Atoll Chemical Agent Disposal System, the prototype chemical agent disposal facility located on the Johnston Atoll in the Pacific Ocean (now closed and dismantled)

J-Block – the area of storage igloos where secondary wastes generated from chemical weapons destruction are stored at UMCD

K-Block – the area of storage igloos where chemical weapons are stored at UMCD

LIC1 & LIC2 – liquid incinerators #1 & #2 – high temperature incinerators (liquid injection with afterburner) used to destroy liquid chemical agents

MDB – munitions demilitarization building – the building that houses all of the incinerators and chemical agent processing systems. The MDB has a cascaded air filtration system that keeps the building under a constant negative pressure to prevent the escape of agent vapor. All air from inside the MDB travels through a series of carbon filters to ensure it is clean before it is released to the atmosphere.

MPF – metal parts furnace – high temperature incinerator (roller hearth with afterburner) used to destroy secondary wastes and for final decontamination of metal parts and drained munitions bodies

IN THE CIRCUIT COURT OF THE STATE OF OREGON

FOR THE COUNTY OF MULTNOMAH

GASP, *et al*

Petitioners,

v

ENVIRONMENTAL QUALITY COMMISSION, *et al* ,

Respondents,

and

UNITED STATES ARMY, and WASHINGTON DEMILITARIZATION COMPANY,

Intervenor-Respondents.

Case No. 9708-06159

STIPULATED GENERAL JUDGMENT

Petitioners have brought a Petition for Review against the State of Oregon Environmental Quality Commission ("EQC") and the State of Oregon Department of Environmental Quality ("DEQ") to require that Air Contaminant Discharge Permit #25-004 ("ACDP") issued by DEQ and Hazardous Waste Permit I.D. No. OR6 213 820 817 ("HWP") issued by EQC be reversed and or remanded; and

The United States Army ("Army") and Washington Demilitarization Company ("WDC"), both named permitees on these permits, having intervened as intervenor-respondents and joined the state in opposing the Petition for Review; and

This Court having dismissed the petition for review as to the ACDP by Order dated June

Warren & Watkins
838 SW 1st Avenue, Suite 500
Portland, OR 97206
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503 228 7019

14, 2006; and

This Court having issued its Opinion and Order dated April 17, 2007 granting in part and denying in part the petition as to the HWP;

It is ADJUDGED that the OREGON EQC'S determinations made pursuant to ORS 466.055 as to whether the Umatilla Chemical Agency Disposal Facility uses the best available technology and has no major adverse impact on public health or the environment in regard to (a) destruction of any mustard in any ton container that contains significantly higher mercury levels than previously reported; (b) the destruction of hazardous waste originally intended for the dunnage incinerator; and (c) the role of PFS carbon filters; are remanded to the State of Oregon Environmental Quality Commission for consideration and further proceedings consistent with the court's opinion of April 17, 2007.

The petition regarding the HWP is granted in regard to the above referenced findings that are remanded to the EQC. The petition regarding the HWP is otherwise denied.

DATED this ____ day of June, 2007.

Michael H. Marcus
Circuit Court Judge

Submitted by: Stuart A. Sugarman
Of Attorneys for Petitioners GASP *et al*

Marc Abrams
Senior Assistant Attorney General
Of Attorneys for Respondents DEQ and EQC

Warren & Watkins
838 SW 1st Avenue, Suite 500
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503 228 7019

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a true and correct copy of the foregoing Stipulated General Judgment was served on the following parties, this 11th day of June, 2007, by electronic mail, and no later than the 12th day of June, 2007 by first class mail:

TOM E. LINDLEY
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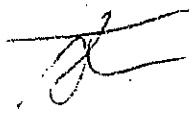


Stuart A. Sugarman

THEODORE R. KULONGOSKI
Governor

Governor Kulongoski's Strategies for Meeting Water Needs in the Columbia Basin

Key Premise

There are significant water supply issues throughout areas of Oregon, none more severe than in parts of Umatilla and Morrow Counties. We've seen significant ground water declines throughout these counties (over 400 feet in some wells), and the Water Resources Department (WRD) has instituted restrictions on ground water use, with impacts on farms, people and economic vitality. I am committed to helping to resolve this important set of problems.

What are the Unmet Water Needs in Eastern Oregon?

These unmet water needs include the following high priorities:

WRD estimates that unmet water needs in Eastern Oregon total over 330,000 acre-feet (af) annually. Demand varies seasonally with peak unmet demands reaching about 945 cubic feet per second (cfs) of water in July. This estimate includes water to meet pending applications requesting new uses of Columbia River water. There is also a significant need to replace ground water in critical and restricted ground water areas that cover almost 800 square miles of the Umatilla Basin. Specific needs include:

1) Replacement water for ground water rights appropriating water from Umatilla Critical Ground Water Areas
   - Majority of ground water rights in the Umatilla critical areas not fully satisfied.
   - Includes restoring irrigation to 57,000 acres that have been curtailed.
   - Includes 42 cfs of non-irrigation uses such as municipal and industrial uses.

2) Confederated Tribes of the Umatilla Indian Reservation (CTUIR)
   - Claims federal reserved water rights to fulfill the primary purposes of their reservation.
   - Quantity of these claims is undetermined
   - Oregon Water Resources Department has reserved 75,000 acre feet of water for CTUIR in the Umatilla Basin.

3) Pending surface water applications for the mainstem Columbia River and for a hydraulically connected ground water application:
   - Six pending applications
   - Includes about 13,000 primary acres and 10,500 supplemental acres for irrigation use during the irrigation season
   - Includes 78 cfs for non-irrigation uses (primarily municipal and quasi-municipal uses) for year round uses of water

Why Don't We Just Turn to the Columbia for Additional Supply?

Oregon has *not* been issuing new water rights from the mainstem Columbia during the growing season for a number of years, largely due to flow targets established from April 15 – September 30 to protect threatened and endangered fish. While there is potential for additional withdrawals of winter flows, summer withdrawals without appropriate mitigation are a problem. Not only would such withdrawals negatively affect already imperiled fish populations, they would very likely precipitate new litigation under the Endangered Species Act. Moreover, they would set the stage for our neighbor states who share the Columbia River system to begin allowing new uses without adequate mitigation. This would result in a modern-day water war among the states who have worked hard to balance flows for fish, power, irrigation and biological benefits.

What Are My Strategies for Addressing the Need for Additional Supply?

I am implementing several strategies to secure additional water resources for Eastern Oregon. The cornerstone for these strategies is the Oregon Water Supply and Conservation Initiative and creation of a Statewide Water Development Task Force.

The State of Oregon has also joined the Westland Irrigation District and Confederated Tribes of the Umatilla Indian Reservation in a joint effort to address multiple water issues in the Umatilla Basin. A key part of my Initiative was recently approved and committed to by Secretary of the Interior, Dirk Kempthorne. Interior and the Bureau of Reclamation will immediately implement a Water Supply Study for the Umatilla River Basin which will determine which large water development projects are needed to provide new water for irrigation development and municipal supplies, new water to satisfy the needs of the Confederated Tribes of the Umatilla Indian Reservation and water to complete the restoration of the Umatilla River and its renowned salmon recovery program. I have worked closely with the Westland Irrigation District and Confederated Umatilla Tribes to implement this program and the recent commitment by Interior will provide $450,000 to initiate this important program. We will maximize the benefit to Oregon of this federal investment by integrating it with my Water Supply and Conservation Initiative.

I have included funding for the Oregon Water Supply and Conservation Initiative in my 2007-2009 recommended budget for the Water Resources Department. The Initiative is a significant step to resolving our long-term water supply needs in the Columbia and elsewhere. The Initiative would quantify our existing and future water needs and our opportunities to meet these needs through above and below ground storage, conservation, and water reuse. It would also provide match funding for communities and regions to identify ways to meet their long term water needs.

As part of a short term effort to address Columbia Basin water needs, the WRD and ODFW have jointly analyzed water available to divert from the mainstem Columbia during the winter without negatively affecting fish. Both agencies have agreed that winter water, totaling nearly 11 million acre-feet, is available to divert and store. The challenge is to find adequate and appropriate places to store this water.

Immediate Steps I Am Taking

- Assist the Lower Umatilla Critical Groundwater Area Task Force to provide alternative water supplies for farms that are affected by recent over-use of the aquifers. Also, I am directing the Department of Environmental Quality to work aggressively to address water quality issues related to the injection of river water from excess winter flows into deep underground aquifers.
- Fund and complete the Oregon Water Supply and Conservation Initiative which would quantify unmet water needs in the Columbia Basin and statewide and would create a comprehensive inventory of suitable above and below ground storage opportunities. $900,000 is budgeted.
- Create a Statewide Water Development Task Force to explore critical water needs and provide guidance to the Water Supply and Conservation Initiative. I will ask the State Water Resources Commission to work with me to form a special task force to guide the Initiative.
- Support amendments to Senate Bill 600, a bill authorizing the statewide comprehensive water supply and conservation initiative. These amendments are recommended by the Confederated Tribes of the Umatilla Indian Reservation to address targeted water supply efforts in the Umatilla and Walla Walla River basins.
- Support House Bill 3203 which would create a lottery backed funding program at the Oregon Economic and Development Department for cost share feasibility studies of storage and water reuse projects. Amount to be funded: $5,000,000.
- At my urging, the Secretary of the Interior has implemented a $450,000 study of Phase III of the Umatilla Basin Exchange Project and other large scale, new water supply projects that would address irrigation water needs of Westland Irrigation District, water needs of the Confederated Umatilla Tribes and of the lower Umatilla Basin and streamflow restoration for the Umatilla River.
- Oregon is a party to the state/federal/tribal collaboration to develop a new biological opinion for the Federal Columbia River Power System. As the collaboration explores improvements to managing the hydrosystem, I have directed that irrigation uses be fully protected and, if possible, expanded.
- Secure agreements with State of Washington to a specific quantity of water *for Oregon* as part of that state's Columbia River Water Development Program. Provide policy level representation from Oregon to the Washington Program, including assistance in working with Department of Interior and Congress.

Lynn, here are some suggested speaking points for Greg Geist's heroism recognition. Also attached is detailed information about the incident, just fyi.

Helen

Greg, we understand you took it upon yourself to assist the Portland Police while you were "off duty" to track down a subject who was armed and had shot at an officer. From what we've read of the report describing the incident, your actions were critical in assisting the police in apprehending the suspect, despite the danger to your personal safety. We know you were awarded the Police Bureau's Civilian heroism medal and we'd just like to take this opportunity to acknowledge your bravery as well. Congratulations.

Text of the award application:

In the evening of March 12, 2007, Portland Police Officer Robert Wullbrandt, was working patrol in Southeast Precinct, when he pulled over a black Buick Regal for a traffic violation near the area of Southeast 39th Avenue and Holgate.

As Officer Wullbrandt was conducting the traffic stop in a grocery store parking lot, one of three people in the car, jumped out of the backseat and began to run. The officer began a foot pursuit, and as he caught up to the subject, the man turned, aimed a gun and fired at the officer. The subject continued running toward Southeast Holgate firing at least one additional round before he ran around the corner and into a nearby apartment complex.

During this violent confrontation, Greg Geist was riding his motorcycle on 39th Avenue, and was stopped at a red light, preparing to turn onto Holgate street. Mr. Geist heard a gunshot and saw a man fall, get up and continue running as he was being chased by a police officer. It was at that point, Mr. Geist realized the subject held a semi-automatic pistol in his right hand.

As the man continued running in a labored jog, at one point, Mr. Geist found himself in the dangerous position of being between the suspect and the officer. But the man continued to run and reached Holgate, fell, but then got up again and began to walk slowly, looking over his shoulder repeatedly at the officer, who had now taken cover behind a building on the corner of Southeast Holgate and 39th.

Mr. Geist watched as the suspect continued walking on Holgate and made the decision to turn his motorcycle onto Holgate and pull into an apartment complex so he could continue to watch the shooter's progress.

As the suspect continued walking another block and turned alongside of the apartment building, Mr. Geist began to lose sight of him. He drove his motorcycle west on Holgate until he relocated the suspect and saw him walk into the sliding glass door of an apartment.

Mr. Geist then located responding officers, pointed out the specific apartment that the suspect had entered and provided a detailed description of him.

The Portland Police Bureau activated its Special Emergency Reaction Team (SERT) and Hostage Negotiation Team, and evacuated nearby residents. After several hours, Hostage Negotiators were able to talk the suspect into surrendering and he was taken into custody without incident. The suspect, who was wanted on a drug warrant, was charged with Attempted Aggravated Murder.

Without Mr. Geist's assistance, even with a thorough canvassing of the area, the dangerous suspect might not have been apprehended. Mr. Geist's detailed description of the events and the suspect was a tremendous asset to all involved.

Mr. Geist had just witnessed a suspect who had demonstrated a willingness to shoot his gun, but despite this danger, Mr. Geist continued to follow him with the goal of getting as much information on his whereabouts to help police.

Mr. Greg Geist should be awarded the Portland Police Bureau's Civilian Heroism Medal for his actions.

ROSANNE M. SIZER
Chief of Police

State of Oregon
Department of Environmental Quality Memorandum

Date: June 4, 2007

To: Environmental Quality Commission

From: Stephanie Hallock, Director S. Hallock

Subject: Agenda Item D, Rule Adoption: Oregon Title V Operating Permit Program: CPI Fee Increase for Fiscal Year 2008 (July 1, 2007 – June 30, 2008); June 21, 2007 EQC Meeting

Why is this Important

Oregon's Title V Operating Permit Program contributes to the prevention of air pollution and helps reduce the number of unhealthy air days and the risks from air toxics. The federal Clean Air Act requires each state's Title V program to be fully funded by permit fees.

The Department of Environmental Quality (Department) increases Title V Operating Permit Fees annually, based on the Consumer Price Index. The proposed increase to Title V Operating Permit Fees will help cover the reasonable costs of the Department in implementing Oregon's Title V Operating Permit Program. Failure to adequately fund Oregon's Title V Operating Permit Program could affect the Department's ability to maintain federal approval of the state program.

Department Recommendation

The Department recommends that the Commission:

(1) Find that the increased fees in the proposed rule (as presented in Attachment A) are necessary to cover the reasonable indirect and direct costs of implementing Oregon's Title V Operating Permit Program; and

(2) Amend OAR 340-220-0030 through -0050 to increase Oregon's Title V Operating Permit Fees by the 2006 Consumer Price Index (CPI) pursuant to ORS 468A.315(1)(a)(D).

Background and Need for Rulemaking

Title V of the federal Clean Air Act requires each state to develop and implement a comprehensive operating permit program for major industrial sources of air pollution. Oregon's Title V Operating Permit Program was approved by the Environmental Protection Agency in 1993. The Title V program is to be fully funded through permit fees; no federal funds are provided.

To help ensure that the funding requirement is met, Oregon law (ORS 468A.315(1)(a)(D)) provides for adjustments to Title V Operating Permit Fees based on changes in the Consumer Price Index (CPI). Title V permit fees have been increased each year since 1993 with the exception of 2001, when the program was adequately funded by the end-of-year fund balance.

In more recent years the CPI (an indicator of inflation in the economy) has not kept up with increases in the Department's costs. As a result, revenue has not kept up with the cost of maintaining staff levels necessary to effectively administer Oregon's Title V program.

Pending legislation (Senate Bill 107), introduced in January 2007, proposes a larger fee increase beyond the annual CPI adjustment. If passed, that legislation, along with this and future CPI fee increases, would fully fund the program for two biennia and help ensure that the Department continues to comply with federal requirements and maintains federal approval of the program.

Effect of Rule

The proposed rule amendments increase fees for all Oregon Title V Operating Permit Program sources. Title V permittees are generally the largest stationary pollution emission sources in Oregon, including power generation, wood and paper products, and fiberglass manufacturing facilities. The requirement that a pollution source have a Title V permit is based on quantity of emissions from a source rather than size of the business. Smaller sources, such as wood refinishing and fiberglass reinforced plastic facilities, are also subject to Title V if those sources have the potential to emit at or above major source emission thresholds. The Department projects that approximately 123 Oregon sources will be subject to Title V in FY 2008.

The Commission last adopted a Title V CPI increase in June 2006. The increase, based on the 2005 CPI, was approximately 3.4 percent. The proposed 2006 CPI increase affects three fee types by approximately 3.2 percent:

- Base Fee: Assessed annually to all sources subject to Title V permitting regardless of emission quantities.
- Emission Fee: Assessed annually on assessable emissions from the individual source.
- Specific Activity Fees: Assessed when a source requests a permit revision; Specific Activity Fees vary based on the complexity of the requested changes.

Proposed fee changes:

Fee Types	From:	To:
Base Fee	$3,379	$3,488
Emission Fee (per ton)	$39.38	$40.65
Specific Activity Fees:		
Permit Revision		
Administrative	$338	$349
Simple	$1,352	$1,395
Moderate	$10,137	$10,464
Complex	$20,273	$20,927
Ambient Review	$2,703	$2,790

Commission Authority

The Commission has authority to take this action under ORS 468A.315(1)(a)(D).

Stakeholder Involvement

We did not convene an advisory panel to develop the proposed rule amendments because we did not identify any policy issues. Title V sources are familiar with the Department's authority to increase Title V permit fees by the CPI. The Department mailed copies of the public notice package to all Title V sources and interested parties. The public notice package consisted of information on the proposed rule and the public hearing held on March 20, 2007.

Public Comment

A public comment period extended from February 15, 2007 to March 30, 2007 and included a public hearing in Portland, Oregon. The Department received oral testimony from the two people who attended the hearing and received one written comment. Comments heavily supported adequate funding for the program. Summaries of the individual comments and the Department's responses are provided in Attachment B.

Key Issues

The proposed rule amendments will help the Department cover the costs of implementing Oregon's Title V Operating Permit Program in Fiscal Year (FY) 2008 (July 1, 2007 – June 30, 2008). Program costs are projected to rise in FY 2008 due to inflation and increases in personnel service costs. Because the program must maintain full funding through permit fees, it will be difficult to maintain adequate staff levels to effectively administer Oregon's Title V program without this fee increase. Inadequate funding could jeopardize the Department's ability to maintain federal approval of the program.

Next Steps

If adopted by the Commission, the proposed fee increases would become effective upon filing with the Secretary of State. Invoices for Title V sources reflecting the fee increase would be mailed in August 2007 with payment due in October 2007. Because this is a continuation of an existing program, no additional resources or training will be needed to implement the rule.

Attachments

A. Proposed Rule (with amendments shown in redline format).
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 and Public Notice Package
2. Cover Memorandum from Public Notice
3. Written Comment Received

Approved:

Section: Gerald C. Ellersdale

Division: Andrea Curtis

Report Prepared By: Andrea Curtis
Phone: (503) 229-6866

OREGON TITLE V OPERATING PERMIT FEES

340-220-0030
Annual Base Fee
The Department will assess an annual base fee of $ ~~3,379~~ 3,488 for each source subject to the Oregon Title V Operating Permit program. The fee covers the period from November 15 of the current calendar year to November 14 of the following year.

Stat. Auth.: ORS 468 & 468A
Stats. Implemented: ORS 468 & 468A

340-220-0040
Emission Fee
(1) The Department will assess an emission fee of $ ~~39.38~~ 40.65 per ton to each source subject to the Oregon Title V Operating Permit Program.
(2) The emission fee will be applied to emissions from the previous calendar year based on the elections made according to OAR 340-220-0090.

Stat. Auth.: ORS 468 & 468A
Stats. Implemented: ORS 468 & 468A

340-220-0050
Specific Activity Fees
The Department will assess specific activity fees for an Oregon Title V Operating Permit program source as follows:
(1) Existing Source Permit Revisions:
  (a) Administrative* -- $ ~~338~~ 349;
  (b) Simple -- $ ~~1,352~~ 1,395;
  (c) Moderate -- $ ~~10,137~~ 10,464;
  (d) Complex -- $ ~~20,273~~ 20,927.
(2) Ambient Air Monitoring Review -- $ ~~2,703~~ 2,790.
*includes revisions specified in OAR 340-218-0150(1) (a) through (g). Other revisions specified in OAR 340-218-0150 are subject to simple, moderate or complex revision fees.

Stat. Auth.: ORS 468 & 468A
Stats. Implemented: ORS 468 & 468A

Attachment B

Summary of Public Comment and Agency Response

Title of Rulemaking: Oregon Title V Operating Permit Program: CPI Fee Increase for Fiscal Year 2008

Prepared by: Andrea Curtis **Date:** 4/3/2007

Comment period	The public comment period opened on February 15, 2007 and closed at 5:00 p.m. on March 30, 2007. DEQ held the following public hearing: March 20, 2007; 6:00 p.m. Multnomah County Central Library, Meeting Room 801 SW Tenth Avenue Portland, OR 97205 2 attended and 2 testified One written comment was submitted by electronic mail and oral testimony was provided by the two people that attended the public hearing.
Organization of comments and responses	Summaries of the individual comments and the Department's responses are provided below. Comments are summarized in categories. The person(s) who provided each comment is referenced by number following the comment. A list of commenters and their reference numbers follows the summary of comments and responses.
Explanation of acronyms used in this document	CAA = Clean Air Act CPI = Consumer Price Index DEQ = Department of Environmental Quality EPA = Environmental Protection Agency NEDC = Northwest Environmental Defense Center ORS = Oregon Revised Statute

Summary of Comments and Agency Responses	
1. Support for funding	• We submit these comments in support of the proposed Title V permit fee increases. (3) • We favor adequate funding of the Title V program. (1, 2)
Response	*DEQ appreciates support for the proposed Title V permit fee increases and adequate funding of Oregon's Title V program.*
2. Program funding	• Current Title V funding in Oregon is perhaps below statutory requirements for adequate funding of the program. (2) • The CPI isn't going to be enough to adequately fund the program between now and 2009, when the proposal before the legislature for the larger fee increase is implemented. (1, 2) • The stated purposes of Oregon's Title V program are to comply with federal requirements and retain control over the program, as well as to: Provide adequate resources to fully cover the costs of DEQ to develop and administer an approvable federal operating permit program in accordance with the Clean Air Act, including costs of permitting, compliance, rule development, emission inventorying, monitoring and modeling and related activities. ORS 468A.305(4). (3) • DEQ has a statutory obligation to "provide adequate resources" for the program, which NEDC does not believe is currently being fulfilled. DEQ should

	push for fees which would allow the program to run effectively and the EQC should allow for the permit fee increases. (3)
Response	*Under the federal CAA, the entire cost of Oregon's Title V program must be funded through Title V permit fees. The Environmental Quality Commission has established a fee schedule for Oregon's Title V permit fees as required by ORS 468A.315. ORS 468A.315 expressly provides for adjustment of these fees based on the CPI to help ensure the funding requirement is met. The CPI is an indicator of inflation in the economy, but it has not kept up with increases in DEQ's costs. Even with annual CPI adjustments to Title V permit fees, current program revenue is not adequate to maintain staff levels DEQ deems necessary to effectively administer Oregon's Title V program.* *To address the problem of inadequate funding of Oregon's Title V program, DEQ is working to improve program efficiency by eliminating duplication and outdated requirements. In addition, pending legislation (Senate Bill 107), introduced in January 2007, proposes a larger fee increase, beyond the annual CPI adjustment. If passed, that legislation would facilitate full funding of the program and help ensure DEQ continues to comply with federal requirements and maintains federal approval of the program. More information on the legislative policy package is available by contacting DEQ.*
3. Program authority	• Oregon might lose its discretion in the Title V program. I would not like to see the permitting discretion given back to EPA. (2) • Should the program continue to be under-funded, Oregon faces the prospect of relinquishing the authority to implement the Title V program in Oregon to the federal government, thereby stripping Oregon of any discretion in the permitting process. *See* 42 U.S.C. §§7413(2) & 7661a(i). This is a legitimate concern especially considering the EPA's increasing interest in creating consistent implementation of the CAA nationwide. (3) • According to a March 9, 2005 EPA Inspector General's Report evaluating the Title V program, though EPA's oversight has improved, more oversight is recommended. *See* Report No. 2005-P-00010. If the State of Oregon wants to maintain control of air quality in the state, the Title V program should be adequately funded as required by state and federal law. (3)
Response	*Although inadequate funding could affect Oregon's ability to maintain federal approval of Oregon's Title V program, DEQ has informed the EPA that pending legislation (Senate Bill 107), introduced in January 2007, proposes a larger fee increase beyond the annual CPI adjustment. The proposed fee increase would facilitate full funding of the program and help ensure DEQ continues to comply with federal requirements and maintains federal approval of the program. More information on the legislative policy package is available by contacting DEQ.*
4. Program elements	• Oregon currently faces considerable air quality challenges. Examples of these challenges include periodic high levels of ozone in downtown Portland and nonattainment status for PM10 in the Eugene/Springfield Urban Growth Area and the Oakridge Urban Growth Boundary. Under-funding the Title V permitting program only exacerbates such problems. In order to avoid further air quality degradation, all elements of the Title V program must be given due attention including permitting, monitoring, enforcement, emission inventorying, and other activities required by state and federal law. (3) • The statute requires more than just issuing the permits and issuing them in a timely manner. It also requires emissions and ambient monitoring, preparing inventories and tracking emissions, and adequate enforcement of all the Title V requirements. (1, 2)

	• The DEQ is currently experiencing a backlog of Title V permits, the first one in DEQ's history. (1, 2)
Response	• *Maintaining clean air is the goal of DEQ's air quality programs. Among other things, an effective Title V program helps reduce the number of unhealthy air days and the risks from air toxics.* • *Although current program revenue is not adequate to maintain staff levels DEQ deems necessary to effectively administer Oregon's Title V program, pending legislation (Senate Bill 107), introduced in January 2007, proposes a larger fee increase beyond the annual CPI adjustment. The proposed fee increase would provide funding needed to administer all elements of the program. More information on the legislative policy package is available by contacting DEQ.* • *There is currently a 25% backlog on permit renewals. The annual CPI adjustment and the legislative proposal for a larger fee increase would allow DEQ to address the permit backlog. To minimize the impact of the backlog on permittees, DEQ is working to improve program efficiency by eliminating duplication and outdated requirements, giving priority to new and modified permits and allowing existing permits to expire.*
5. Staff	According to several documents, including a 2005-2007 Title V workload analysis, the Air Quality Division has been operating with several fewer staff than needed to run an efficient Title V program. Attachment B to Proposed Rule Change states on page 4 that "[e]ven with the proposed fee increases, the Department will be operating below minimum Title V staff levels." Given the shortcomings in funding for Title V program staff, and that the only allowed source of funding for this program are the fees in question, the solution posed seems only logical. (3)
Response	*DEQ was forced to reduce staffing to two positions below the minimum levels DEQ deems necessary to effectively administer the Title V program during the 2005-2007 biennium. The proposed CPI fee increase will help pay for the costs of Oregon's Title V program in Fiscal Year 2008, however, pending legislation (Senate Bill 107), introduced in January 2007, proposes a larger fee increase beyond the annual CPI adjustment, which would provide funding needed to maintain adequate staff levels. Program staffing requests are subject to policy package no. 112. More information on the legislative policy packages is available by contacting the DEQ.*
6. State comparison	• The fee increase requested is not exorbitant, and the resulting fees are not out of line with other states' fees. Other measures also indicate that Oregon falls in the average range for Title V funding. According to a sample of several states done by the DEQ and shown in a presentation to Associated Oregon Industries, the average permits per permit writer and inspector is 10, while Oregon's ratio is 9.5. (3)
Response	• *The proposed rulemaking would increase fees by approximately 3.2%.* • *A multi-state comparison demonstrated that Oregon's Title V permit fees are not out of line with other states' fees. However, in the multi-state comparison on number of permits per permit writer and inspector, Oregon's data were based on DEQ having adequate staff levels for administering Oregon's Title V program. The 9.5 ratio does not accurately reflect the current number of DEQ permit writers and inspectors. DEQ is currently operating below adequate staff levels DEQ deems necessary to effectively administer Oregon's Title V program.* • *Although DEQ can compare Oregon's Title V program with other states' programs, DEQ cannot confirm whether other states' programs are adequately*

	~~*funded, staffed, or both.*~~
7. Automatic annual fee increases	The CAA indicates that this sort of increase may be automatic: "The fee calculated … *shall* be increased (consistent with the need to cover reasonable costs …) in each year beginning after 1990, by the percentage, if any, [of] the Consumer Price Index …. 42 U.S.C. §7661a(b)(3)(B)(v) (emphasis added). Given that DEQ's program cost increases have equaled or exceeded the Consumer Price Index in all but one of the years that DEQ has implemented the Title V program in Oregon, DEQ should consider making this annual increase automatic. DEQ would then save the money needed for the annual rulemaking procedures. (3)
Response	*DEQ cannot write an automatic fee increase into the rules. In accordance with ORS 468A.315(1)(a)(D), the fee schedule shall consist of:* *An annual increase by the percentage, if any, by which the Consumer Price Index exceeds the Consumer Price Index for the calendar year 1989 if the commission determines by rule that the increased fee is necessary to cover all reasonable direct and indirect costs of implementing the federal operating permit program.* *The statute requires EQC approval of CPI fee increases based on the EQC's determination of need. However, to save program resources, pending legislation (Senate Bill 107), introduced in January 2007, would amend ORS 468A.315 to allow DEQ to propose CPI fee increases every two years rather than every year. If passed, that legislation would continue to provide for adjustment of fees based on the CPI to help ensure the funding requirement is met, but reduce the frequency in which rulemaking procedures are needed to implement these adjustments. Approval of the CPI fee increases would continue to be based on determination of need. More information on the pending legislation is available by contacting DEQ.*
8. Revenue allocation	• Are the fees for the Title V program being only used for Title V or are they filtering over into other programs? (1, 2) • Is there adequate separation and accounting of the fees? (1, 2) • We may use available budget allocation information in submitting written comments. (1, 2)
Response	• *The entire cost of Oregon's Title V program is funded through permit fees as required by the CAA. Any outstanding fund balances are retained within the program and are not transferred into other programs.* • *DEQ maintains adequate separation and accounting of Title V program costs and revenue. Fund balances are built into the Title V budget to assure the program is funded between fee collection cycles.* • *DEQ provided budget allocation information to the requesting parties.*
9. Public involvement	The Title V program is a valuable tool for public involvement and may be the main vehicle for the public to be involved in air quality emissions. (1, 2)
Response	*DEQ values public involvement in Oregon's Title V program. The program provides increased opportunities for the public to take part in determining how the law will be carried out. All new permits, renewals, and significant permit modifications must have a public notice period during which citizens can comment on the permit action and request a public hearing. Any objections to the proposed action not otherwise resolved by DEQ can be the basis of a petition to EPA. Neighboring states and EPA also have ample opportunity to comment on permit content.*

Summary of Comments Unrelated to this Rulemaking
This [Multnomah County Central Library] is a nice venue for public hearings. If it's available in the future, it's a very comfortable venue for people to come to. (1, 2)

List of People Submitting Comments (by Commenter Number)			
Number	**Name**	**Organization**	**Submit date**
1	Dona Hippert	Oregon Toxics Alliance; and Northwest Environmental Defense Center	3/20/2007 (oral)
2	Johannes Epke	Northwest Environmental Defense Center	3/20/2007 (oral)
3	Dona Hippert Johannes Epke	Oregon Center for Environmental Health; Concerned Citizens for Clean Air; Northwest Environmental Defense Center; and Oregon Toxics Alliance	3/30/2007 (written)

Attachment C

State of Oregon
Department of Environmental Quality Memorandum

Date: March 26, 2007

To: Environmental Quality Commission

From: Sarah Armitage, Air Quality Division

Subject: Presiding Officer's Report for Rulemaking Hearing

Hearing Date and Time: March 20, 2007, beginning at 6:00 p.m.
Hearing Location: Multnomah County Central Library, Meeting Room
801 SW Tenth Avenue
Portland, Oregon 97205

Title of Proposal: Oregon Title V Operating Permit Program: CPI Fee Increase for FY 2008

At 6:00 p.m., with two people in attendance, I informed the audience that I was the presiding officer and explained procedures for the hearing. I introduced Andrea Curtis, the project lead, and Gregg Dahmen, a member of DEQ's Title V Program staff. Andrea gave a brief presentation of the rulemaking proposal. An informal question and answer session followed her presentation. I made it clear that the question and answer session was merely an informational session, and that formal comments would be taken following that discussion.

I convened the rulemaking hearing on the proposal referenced above at 6:10 p.m. I asked the audience to complete a Registration for Testimony form if they wished to present comments and advised them that the hearing was being recorded. I informed the audience that I was taking comments on behalf of the Environmental Quality Commission and that the Commission would be provided a comment summary. I informed the audience that the DEQ evaluates all comments equally, that their comments would be included in the Summary of Comments and Agency Responses for this rulemaking, and that the deadline for receipt of comments is 5 p.m. on March 30, 2007.

The two people that attended the hearing turned in Registration for Testimony forms and provided oral comments. The following is a summary of oral comments received at the hearing.

Summary of Oral Testimony

Dona Hippert, NW Environmental Defense Center; and Oregon Toxics Alliance
Dona stated that she attended the public hearing as a board member for the NW Environmental Defense Center (NEDC) and the Oregon Toxics Alliance (OTA). As a side note, she stated that

this is a nice venue for public hearings and that if it's available in the future, she thinks it's a very comfortable venue for people to come to. Dona stated that the NEDC and the OTA are in the process of writing comments to submit and that these will be more extensive than what she says tonight. She stated that the NEDC and the OTA favor adequate funding of the Title V program and think it is a valuable tool for public involvement and may be the main vehicle for the public to get involved in air quality emissions. Donna stated that she is concerned the Consumer Price Index isn't going to be enough to adequately fund the program between now and 2009, when the proposal that's before the legislature for the larger fee increase is implemented. She stated she understands DEQ is currently experiencing a backlog of Title V permits, the first one in DEQ's history, and that the statute requires more than just issuing the permits and issuing them in a timely manner - it also requires emissions and ambient monitoring, preparing inventories and tracking emissions, and adequate enforcement of all the Title V requirements. She stated that her questions include whether the fees for the Title V program are only being used for Title V or if they are filtering over into other programs and whether there is adequate separation and accounting of the fees. She stated that, regarding budget allocations, there is apparently information available that the NEDC and the OTA can use in submitting written comments.

Johannes Epke, NW Environmental Defense Center
Johannes Epke stated that he agrees with comments provided by Dona Hippert. He stated that he is concerned that current Title V funding in Oregon is perhaps below statutory requirements for adequate funding of the program, that Oregon might lose its discretion in the Title V program, and that he would not like to see the permitting discretion given back to EPA.

There was no further testimony. I closed the hearing at 6:40 p.m.

Attachment D

Oregon Department of Environmental Quality

The Air Quality Division proposes to increase Oregon Title V Operating Permit fees by approximately 3.2 percent.

Relationship to Federal Requirements

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

   Yes. Title V of the federal Clean Air Act requires each state to develop and implement a comprehensive operating permit program for major industrial sources of air pollution. The federal Clean Air Act and EPA rules (40 CFR Part 70) require each state's Title V program to be fully funded through permit fees.

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

   The applicable federal requirement is not a performance or technology based standard, rather it is a requirement that each state's Title V program be fully funded through permit fees.

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 federal fee requirement assures that sources subject to Title V pay for the permitting program. The applicable federal requirement does not specifically address the issues that are of concern in Oregon apart from a need to fully fund the Title V program with permit fees, which this rulemaking attempts to address with an increase in Oregon's Title V fees equal to the CPI increase.

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 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?

Not Applicable

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

   Yes. The proposed rulemaking would increase the permit fees for all permitted sources by a flat percentage.

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

   Not applicable. This rulemaking involves fee increases, not the adoption of technology or performance based standards where stringency issues are typically raised.

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?

    Yes. The Oregon Title V Operating Permit Program contributes to the prevention of pollution. The proposed rule amendments would help ensure that DEQ has adequate resources to effectively operate its Title V Operating Permit Program in Fiscal Year (FY) 2008 (July 1, 2007 – June 30, 2008) and avoid losing federal approval of the program due to insufficient resources. Oregon's Title V Operating Permit Program costs are projected to rise in FY 2008 due to inflation and increases in personnel service costs. The program must maintain full funding through permit fees. Without this fee increase, it would be difficult to maintain staff levels needed to operate the program, and as a result, to maintain federal approval of the program. In other words, DEQ would have a difficult time issuing Title V permits in a timely fashion, making periodic compliance determinations, and taking enforcement action when appropriate.

Attachment E

Oregon Department of Environmental Quality

Chapter 340
Proposed Rule Change:
Oregon Title V Operating Permit Program: CPI Fee Increase for FY 2008

Statement of Need and Fiscal and Economic Impact

Rule Caption	The Department of Environmental Quality proposes to increase Oregon Title V Operating Permit fees by approximately 3.2 percent.
Title of Proposed Rulemaking	Oregon Title V Operating Permit Program: CPI Fee Increase for FY 2008
Need for the Rule	The Title V Operating Permit organizes into a single document all the air pollution control requirements which apply to the permit holder. The permit holder has a responsibility to monitor compliance with the requirements of the permit, keep detailed records, and submit periodic compliance reports. DEQ has a responsibility to evaluate the permit application, issue the permit, regularly inspect the permit holder's business, records, and reports for compliance with the requirements of the permit, and recommend enforcement actions when permit violations occur. The federal Clean Air Act requires each state's Title V operating permit program to be fully funded through permit fees. To ensure that the funding requirement is met, State law provides for inflationary adjustments to Oregon's Title V Operating Permit fees based on changes in the consumer price index (CPI). The proposed rule amendments are needed to help DEQ pay for the costs to implement and administer the Oregon Title V Operating Permit Program in Fiscal Year (FY) 2008 (July 1, 2007 – June 30, 2008). Program costs are projected to rise in FY 2008 due to inflation and increases in personnel service costs. Without this fee increase, it would be difficult to maintain staff levels needed to operate the program, and as a result, to maintain federal approval of the program. According to ORS 468A.315, DEQ must obtain approval from the Environmental Quality Commission (EQC) to increase Title V Operating Permit fees by the CPI each year. Rule changes are required to implement the permit fee increases.
Documents Relied Upon for Rulemaking	Documents relied upon to provide the basis for this proposal include: 1. 2007-2009 Governor's Recommended Budget 2. Fiscal Year 2008 Projected Title V Revenue 3. US Department of Labor Bureau of Statistics Consumer Price Index through December 2006 4. Federal Clean Air Act Amendments of 1990 5. Oregon Statutes (ORS 468.065, ORS 468A.040, and ORS 468A.315) Copies of these documents may be reviewed at the Department of Environmental Quality's office at 811 S.W. Sixth Avenue, Portland, Oregon.
Fiscal and Economic Impact	
Overview	Title V of the federal Clean Air Act requires each state to develop and implement a

	comprehensive operating permit program for major industrial sources of air pollution. Oregon's Title V Operating Permit Program is approved by the EPA. Oregon statutes establish permit fees, including an Annual Base Fee, Emission Fees (per ton, assessed on actual or allowable emissions), and Specific Activity Fees (assessed when a source owner or operator modifies a permit). The federal Clean Air Act requires each state's Title V program to be fully funded through permit fees. To ensure that the funding requirement is met, Oregon statutes provides for inflationary adjustments to Oregon's Title V permit fees based on changes in the consumer price index (CPI). ***ORS 183.335(2)(b)(G) requests public comment on whether other options should be considered for achieving the rule's substantive goals while reducing negative economic impact of the rule on business.***	
Request for Other Options	**Pursuant to ORS 183.335(2)(b)(G), DEQ requests public comment on whether other options should be considered for achieving the rule's substantive goals while reducing negative economic impact of the rule on business.**	
Impacts on the General Public	DEQ does not anticipate any direct fiscal or economic impacts from the proposed fee increases on the general public. The proposed fee increases could indirectly impact the general public because the fee increases could be passed through by Title V permit holders, resulting in a slight increase in the costs of products or services provided by Title V permit holders.	
Impacts on Small Business (50 or fewer employees – ORS183.310(10))	The proposed fee increases will directly impact small businesses required to have a Title V Operating Permit. The proposed amendments would increase the Title V Base Fee by $ 109 and the Title V Emission Fee by $ 1.27/ton. These fee increases equate to an annual fee increase of $ 173 for a source that emits 50 tons per year, $ 236 for a source that emits 100 tons per year, and $ 744 for a source that emits 500 tons per year. Of small businesses subject to the Title V program, approximately 47% emitted fewer than 50 tons, approximately 13% emitted between 50 and 100 tons, and approximately 40% emitted between 100 and 500 tons during the previous emissions year. The proposed fee increases could indirectly impact small businesses that do not hold Title V permits because the fee increases could be passed through by Title V permit holders, resulting in a slight increase in the costs of products or services provided by Title V permit holders.	
Cost of Compliance on Small Business (50 or fewer employees – ORS183.310(10))	a) The estimated number of small businesses subject to the proposed fee increases	Typically, Title V operating permits apply only to large businesses, but applicability is dependent on potential emission levels rather than business size. Currently, 18 small businesses, such as fiberglass reinforced plastic manufacturers and smaller wood product and cabinet making operations, are required to hold Title V operating permits because their potential emissions exceed Title V applicability thresholds.
	b) The types of businesses and industries with small businesses subject to the proposed fee increases	See answer to (a) above.
	c) The projected reporting, recordkeeping and other administrative	The proposed rule amendments do not establish any additional reporting, recordkeeping or other administrative activities.

	activities required by small businesses for compliance with the proposed fee increases	
	d) The equipment, supplies, labor, and increased administration required by small businesses for compliance with the proposed fee increases	The proposed rule amendments do not require any additional equipment, supplies, labor or increased administration.
	e) A description of the manner in which DEQ involved small businesses in the development of the proposed fee increases	The Notice of Proposed Rulemaking will be sent to Title V sources and interested parties on February 15, 2007. The March 20, 2007 public hearing provides a forum for both large and small Title V businesses and interested parties to comment on the rule. DEQ has informed Associated Oregon Industries, a stakeholder representative, of the proposed fee increases.
Impacts on Large Business	The proposed fee increases will directly impact large businesses required to have a Title V Operating Permit. Oregon's Title V Operating Permit Program affects the highest emitters of regulated air pollutants in the state. Currently, 105 large businesses are subject to the Program. Of these sources, approximately 17% emitted fewer than 100 tons, approximately 69% emitted between 100 and 1000 tons, and approximately 14% emitted greater than 1000 tons during the previous emissions year. The proposed fee increases equate to an annual fee increase of $ 236 for a source that emits 100 tons per year and $ 1,379 for a source that emits 1000 tons per year. The proposed fee increases could indirectly impact large businesses that do not hold Title V permits because the fee increases could be passed through by Title V permit holders, resulting in a slight increase in the costs of products or services provided by Title V permit holders.	
Impacts on Local Government	The proposed fee increases will directly impact local governments required to have a Title V Operating Permit. According to DEQ's current understanding, the Coos County Solid Waste Department and Metro's St. John's Landfill are the only local government agencies required to have Title V Operating Permits. Coos County would pay $ 10,724 for FY 2008 as a result of the proposed fee increases, an estimated increase of $ 338 over current fees; Metro would pay $ 5,683 for FY 2008 as a result of the proposed fee increases, an estimated increase of $ 180 over current fees. These projections assume that FY 2008 emissions will be the same as in previous years. The proposed fee increases could indirectly impact local governments not holding Title V permits because the fee increases could be passed through by Title V permit holders, resulting in a slight increase in the costs of products or services provided by Title V permit holders.	
Impacts on State Entities	The proposed fee increases will directly impact state entities required to have a Title V Operating Permit. According to DEQ's current understanding, Oregon State University (OSU) and Oregon Health Sciences University (OHSU) are the only state entities required to have Title V Operating Permits. OSU would pay $ 6,821 in FY 2008 as a result of the proposed fee increases, an estimated increase of $ 214 over current fees. OHSU would pay $ 9,911 in FY 2008 as a result of the proposed fee increases, an estimated increase of $ 312 over current fees. These projections assume that FY 2008 emissions will be the same as in previous years. The proposed fee increases could indirectly impact other state entities not holding Title	

	V permits because the fee increases could be passed through by Title V permit holders, resulting in a slight increase in the costs of products or services provided by Title V permit holders.
Impacts on DEQ	The Department of Environmental Quality will not incur any additional costs to implement the proposed fee increases. Instead, DEQ will gain additional resources to operate Oregon's Title V Operating Permit Program. In a Title V work load analysis conducted for 2005-2007, DEQ determined that staffing could be reduced from 36 to 35 Full Time Employees (FTE) without reducing the effectiveness of the Title V program. However, due to inadequate revenue, staffing in the Title V program was reduced to 33 FTE for the 2005-2007 biennium. Even with the proposed fee increases, the Department will be operating below minimum Title V staff levels. The proposed fee increases could indirectly impact DEQ because the fee increases could be passed through by Title V permit holders, resulting in a slight increase in the costs of products or services provided by Title V permit holders.
Impacts on other Agencies	DEQ anticipates that no other agencies will be directly affected by the proposed rule amendments. The proposed fee increases could indirectly impact other agencies that do not hold Title V permits because the fee increases could be passed through by Title V permit holders, resulting in a slight increase in the costs of products or services provided by Title V permit holders.
Assumptions	Estimated revenue forecasts and expenditures are based on the assumption that all facilities subject to Oregon's Title V Operating Permit Program have been identified, and that facility emissions will remain at the same level as in previous years. The Department projects approximately 123 sources will be subject to Title V permitting and fee requirements in FY 2008.
Housing Costs	The Department has determined that the proposed fee increases may have a negative impact on the development of a 6,000 square foot parcel and the construction of a 1,200 square foot detached single family dwelling on that parcel if Title V permit holders providing goods and services for such development and construction pass on the fee increase through their goods and services. The possible impact appears to be minimal. DEQ cannot quantify this impact at this time because the information available to it does not indicate whether the approximate 3.2% fee increase would be passed on to consumers and any such estimate would be speculation.
Administrative Rule Advisory Committee	An advisory committee was not convened to develop the proposed rule amendments because Oregon statutes specifically provide for Title V operating permit fee increases, continued federal approval of Oregon's Title V Operating Permit Program depends upon adequate funding, additional funding is needed to adequately administer Oregon's program, and no policy issues were identified. The Notice of Proposed Rulemaking will be distributed to Title V businesses and interested parties in February 2007.

Prepared by: Andrea Curtis (Name) February 5, 2007 (Date)

Approved by DEQ Budget Office: Andree Pollock (Name) February 5, 2007 (Date)

Attachment F

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

The Air Quality Division proposes to increase Oregon Title V Operating Permit fees by approximately 3.2 percent.

Land Use Evaluation Statement

1. **Explain the purpose of the proposed rules.**

The Department proposes to increase Oregon Title V Operating Permit fees by the change in the 2006 Consumer Price Index, approximately 3.2 percent. These rule amendments are necessary to help DEQ pay for the costs to implement and administer Oregon's Title V Operating Permit Program in Fiscal Year (FY) 2008 (July 1, 2007 – June 30, 2008). Program costs are projected to rise in FY 2008 due to inflation and increases in personnel service costs. The federal Clean Air Act requires each State's Title V program to be fully funded through permit fees. To ensure that the funding requirement is met, State law provides for inflationary adjustments to Oregon's Title V permit fees based on changes in the CPI. Without this fee increase, it would be difficult to staff levels needed to operate Oregon's Title V Operating Permit Program, and as a result, to maintain federal approval of the program.

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 X No _____

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

This proposal amends Oregon Administrative Rules for Oregon Title V Operating Permit fees; see attachment A, OAR340-220, for proposed rule language. The Oregon Title V program regulates air emissions from industrial businesses.

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

Yes X No_____ (if no, explain):

The proposed rule amendments would be implemented through the Department's existing stationary source permitting program. An approved Land Use Compatibility Statement is required from local government before an air permit is issued.

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

Not applicable.

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.

State of Oregon

Department of Environmental Quality Memorandum

Date: June 6, 2007

To: Environmental Quality Commission

From: Stephanie Hallock, Director S. Hallock

Subject: Agenda Item E, Informational Item: Follow Up on Implementation of the EQC Involvement Report and Watch List of Emerging Issues.

June 21, 2007 EQC Meeting

Purpose of Item In the spring of 2006, the Environmental Quality Commission expressed a desire to be more actively involved in the high-level policy, planning, funding and public participation efforts of the Department of Environmental Quality.

The Department presented a report and recommendations to the Commission in December of 2006. After a discussion and some adjustments, the Commission accepted the recommendations and the Department proceeded with implementation.

The purpose of this agenda item is to evaluate the success of the actions implemented to date and to acquire the Environmental Quality Commissioners' comments and guidance for continuing to support their desired level of involvement.

Background The Department produced a final report following the Commissions' discussion in December of 2006. DEQ staff distributed the report to Commissioners on March 8, 2007. You will find that report in Attachment A.

Roles and Responsibilities

The report defines the DEQ and EQC respective roles as follows:

- EQC: Provide strategic-level guidance and direction for setting policies, planning and funding; along with DEQ interact directly with Oregon citizens; adopt rules; identify vital environmental issues that warrant EQC study or action; and fulfill the statutory duties of the Commission, as described in ORS 468.015.
- DEQ Director and Staff: Lead, direct and run the Department of Environmental Quality, including strategic planning, budget and legislative agenda development and making policy choices (all with leadership guidance from and collaboration with the EQC). Supervise the administrative and operational functions of the

agency. Interact directly with the citizens of Oregon. Be alert to vital environmental issues that may warrant EQC study or action.

Actions

During the December, 2006 discussion with the EQC, the Department of Environmental Quality committed to a series of actions in the areas of: 1) public involvement; and 2) the EQC's involvement in DEQ direction. The promised actions are described in Attachment A.

Watch List of Emerging Issues

During the course of the EQC Involvement discussion in the fall of 2006 and during the December, 2006, EQC meeting, the Commissioners articulated their desire to anticipate and identify emerging environmental issues that may warrant further exploration, either because of their importance or their potentially contentious nature. The resulting Watch List of Emerging Issues is Attachment B to this report.

Key Issues

1. What is the Commissions' overall evaluation of the actions implemented to date?
2. Do the actions sufficiently support the level of involvement desired by the EQC?
3. What changes, if any, are needed in the Watch List of Emerging Issues?
4. What is the feasible level of Department action on the Watch List of Emerging Issues, given funding constraints and other commitments?

Next Steps

The Department will continue implementing planned actions, and will return to the EQC in December for the next semi-annual check-in and evaluation.

EQC Involvement

The Department seeks Commissioners' guidance about course changes needed, if any, to support their desired level of involvement and the content of the Watch List of Emerging Issues.

Attachments

A. Final report and action plan for the Environmental Quality Commission Involvement in DEQ's Direction
B. Watch List of Emerging Issues
C. Summary of Actions Taken to Date

Approved:

Section: Helen Lottridge

Division: Dick Pedersen

Report Prepared By: Helen Lottridge

Phone: (503) 229-6725

Attachment A for Agenda Item E
Environmental Quality Commission Meeting
June 21, 2007

Environmental Quality Commission Involvement in DEQ's Direction

"We have a role in deciding the direction of the agency—in a partnership way. It's like a Swiss Watch. Every part has its own role, and without all of them, nothing happens. My themes are teamwork and mission."

Donalda Dodson, Environmental Quality Commissioner

"The Commission has taken a leadership role in approving tougher vehicle emission standards and in considering a new fish consumption standard. The Commission is improving our relationship with the Tribes. By seeking information on mercury and toxics, the Commission has shown that it is more than a figurehead and that it has a broad understanding of these issues when it comes time to adopt rules."

Jane Hickman, DEQ Administrator of Compliance and Enforcement

Introduction

In March of 2006, the Environmental Quality Commission voiced a desire to be more actively involved in the high-level policy, planning, funding and public participation efforts of the Department of Environmental Quality.

The DEQ welcomes and appreciates the Commission's increased investment of time and energy, and developed a proposal to support the preferred level of communication and involvement.

Stephanie Hallock, Director of DEQ, appointed a four-person team of DEQ staff to develop and present the proposal. The members were Helen Lottridge, Greg Aldrich, Nina DeConcini and Larry McAllister.

On December 15, 2006, during their regular meeting, the EQC discussed the report at length and made several changes and additions, which are reflected in this final report.

The goals of implementing the processes described in this report are to articulate the role the Commission plays in the planning, policy setting, funding and public involvement of the Department of Environmental Quality, and to describe processes to ensure successful implementation of the Commission's selected roles and responsibilities; to put into practice the Commissioners' vision of their roles and responsibilities, while being sensitive to both Commissioners' time constraints and the agency's limited budget.

Background

The Environmental Quality Commission is a five-member citizen panel appointed by the Governor to serve as DEQ's policy and rulemaking board. In addition to adopting rules, the EQC also establishes policies, issues orders, judges appeals of fines or other department actions, and appoints the DEQ director. The EQC adopts rules and standards as it considers necessary and proper to carry out statutory direction.

In ORS 468.015, the function of the Environmental Quality Commission are defined as:

"It is the function of the Environmental Quality Commission to establish the policies for the operation of the Department of Environmental Quality in a manner consistent with the policies and purposes of ORS 448.305, 454.010 to 454.040, 454.205 to 454.255, 454.505 to 454.535, 454.605 to 454.755 and ORS chapters 468, 468A and 468B. In addition, the commission shall perform any other duty vested in it by law. [1973 c.835 §4]"

The Commissioners invest considerable time and energy in volunteer service to the state. Depending on their background

and professional experience, Commissioners are often able to offer specific expertise in various scientific, policy and legal issues.

We value these contributions, and the agency mission is well served by making the most of the Commission's willingness to be actively engaged.

Roles and Responsibilities

Based primarily on Commissioner interviews and the needs of the agency, the roles of the Commission and the DEQ can be distinguished as follows:

Commission Roles

Provide strategic-level guidance and direction for setting policies, planning and funding; along with DEQ interact directly with Oregon citizens; adopt rules; identify vital environmental issues that warrant EQC study or action; and fulfill the statutory duties of the Commission, as described in ORS 468.015.

In fulfilling all of their roles, the EQC relies heavily on staff briefings.

Examples of Functions Included in EQC Roles:

1. Setting Policy
- Weighing-in, making decisions on recommendations submitted by the DEQ
- Delegation of federal programs, e.g., dropping or accepting programs such as Underground Injection Control
- Hearing and deciding appealed contested cases
- Issuing orders
- Approving the siting of hazardous waste treatment and disposal facilities
- Making tax credit decisions (approve, modify, deny)
- Appointing Director and reviewing performance
- Adopting rules
- Exploring emerging issues, e.g., mercury standards, cumulative impact of pollutants
- Providing expertise in areas of interest
- Keeping current with the Governor's statewide priorities

2. Public Involvement
- Facilitating public hearings during EQC meetings
- Hosting, facilitating, officiating and attending public forums: hearings, town hall meetings, advisory committees
- Interacting with the legislature: contacting legislators, answering questions
- Speaking at media events
- Responding to direct questions from individuals, interest

groups (AOI, environmental groups) and reporters
- Presenting awards to schools, watershed councils and other groups or attending other community meetings

3. Planning
- Revising and updating the Strategic Directions
- Reviewing the agency performance measures results
- Reviewing the Rulemaking Agenda, providing guidance, determining level of EQC involvement in specific rulemakings
- Discussing areas the EQC wants to spotlight, e.g., sustainability in the Strategic Directions
- Interacting with the Governor, Tribes, local government and other agencies about areas of common interest

4. Funding
- Collaborating with the DEQ, developing, reviewing and approving budget requests and proposed statutory changes
- Adopting program fees proposed in rulemaking
- Supporting DEQ budget with the Governor and the legislature.
- Developing long term funding stability, in collaboration with DEQ and others

Director and Staff Roles

The roles of the Director and agency staff can be briefly defined as:

Lead, direct and run the Department of Environmental Quality, including strategic planning, budget and legislative agenda development and making policy choices (all with leadership guidance from and collaboration with the EQC). Supervise the administrative and operational functions of the agency. Interact directly with the citizens of Oregon. Be alert to vital environmental issues that may warrant EQC study or action.

Scenarios that May Warrant EQC Interest or Involvement

Environmental Quality Commissioners expressed satisfaction with the types of issues to which staff alert them, and saw no reason to define specific criteria. Commissioners have confidence in staff's judgment and believe that deciding when to alert or involve them is a matter of common sense and judgment.

As a general guide, staff strongly consider alerting Commissioners in the scenarios described below:
- The last time the permit was up there was high public interest.
- Rulemaking that would affect a particular industry or facility.
- Legislation that would affect an industry or other group
- A facility has had a history of complaints and is seeking a

permit renewal or modification.

- Siting of a new facility involves DEQ in some way
- Local governments or issues are getting media attention
- Legislators have an interest in a particular issue (significant financial or political issues only)
- Issues that surface as part of a political campaign or initiative
- We're planning to take enforcement action against someone in their region (higher profile or significant political or financial impact)
- High interest by media or interest groups in the issue
- Emerging issues like mercury or benzene
- High profile incident (spill, fish kill, etc...)
- Priority of the Governor

Actions

Public Involvement

The goal of public dialogue is to increase the public's confidence in the basis for regulation, and to involve citizens in environmental decisions and issues.

1. Continue the Town Hall meetings, with no more than one per year in any one location, scheduling them around other planned meetings or activities. Generally, EQC meetings outside the Portland Metro area will be scheduled to accommodate a Town Hall meeting.

2. Conduct workshops prior to complex public hearings, like we are doing for mixing zones. Gather relevant documents and post them on the Internet.

3. Annually, during review of the Rulemaking Agenda, the EQC and DEQ will determine which public hearings will include Commissioner participation, facilitation or presiding officer functions. The DEQ will follow up with the Commission during the rulemaking process to affirm the choices and to schedule public hearings.

   During the course of the year, there may be other hearings not related to rules in which the EQC may wish to participate. DEQ staff will notify Commissioners about important issues or activities in their particular geographic area.

4. Continue to expand DEQ's understanding about the best ways to engage our many audiences by employing the premise of being fair, open and honest in the way we conduct our outreach. Depending on the issue, we will employ different techniques. Public workshops are better suited to complex issues such as mixing zones. Advisory committees, public hearings and information sessions may also be used,

in addition to other outreach methods. Where possible and practical, DEQ will invite one or more EQC members to participate.

EQC Involvement in DEQ Direction

5. At the EQC's request or the DEQ's recommendation, Commissioners will hold informal discussions among themselves, open to the public, about critical environmental issues likely to appear before the EQC. The purpose of these discussions will be to explore the issues and to inform the Commissioners in preparation for future decisions. These discussions will normally occur during regular EQC meetings, or in rare cases, at a special meeting.

6. Strategic Directions update (September – November odd years):

   Although the strategic directions cover five years, conditions may change during that time that warrant interim updates. The DEQ Director and Executive Management Team will determine what revisions are needed to the strategic directions and prepare a report for Commission consideration by September of each odd year. This initial report will be a high-level description of what major changes may be needed in the Strategic Directions, based on legislative action and changing circumstances. Following the high-level description of major changes needed, the DEQ Director and Executive Management Team commit to work with the EQC, integrating the Commissioners' guidance and comments into the new strategic directions. The Commission will officially adopt the final revised strategic directions, and DEQ will publish and distribute the document every odd year, unless no revisions are necessary. These collaborations will take place via discussions at regular Commission meetings and during retreats, depending on the extent of change needed. Every five years, the DEQ and the EQC will assess the need for a major overhaul of the Strategic Directions, beginning in 2011.

7. Performance Measures review (semi-annually, in February and September, or the EQC meeting closest to these months.

   The DEQ will review and discuss performance results with the EQC.

8. Legislative Agenda (budget development and legislative concepts:

   During November-December of odd years, following the strategic directions update, the DEQ will consult with the EQC to recommend and obtain direction and Commissioners'

input on the upcoming legislative agenda and budget development.

Then, during January-August of even years the DEQ will develop the budget request and the legislative strategy in collaboration with the EQC for the upcoming legislative session. The budget and legislative request will be guided by the recently-updated strategic directions. The bulk of the responsibility for developing these products lies with the DEQ, taking guidance and comment from the EQC.

DEQ will present updates and seek guidance from the EQC at each meeting scheduled during this timeframe. At the EQC meeting prior to September 1, the date when the agency budget request must be submitted, the Chairperson of the Environmental Quality Commission will officially certify the DEQ's budget submission. In addition, DEQ will provide regular updates on budget development and other legislative matters after the Governor's Recommended Budget is released and during legislative sessions.

9. Rulemaking agenda (December each year):

   The DEQ's rulemaking agenda covers a rolling two-year period and is updated annually. In December of each year, the DEQ will review the newly-updated rulemaking agenda with the Commission. During the review, Commissioners will indicate to the DEQ which rules call for direct involvement of one or more Commissioners, and suggest what their role(s) might be. For example, Commissioners may elect to attend or officiate at public hearings and workshops, or to chair advisory committees for certain rulemakings. For controversial rules, additional public hearings might be held by the EQC to increase public comment and dialogue.

   Commissioners may elect to designate more routine rulemakings, e.g., housekeeping or adoption of federal regulations by reference, as eligible for streamlined processing by the EQC, using a consent agenda or other similar approach.

10. Emerging issues (semi-annually in June and December):

    During the rulemaking discussion in December of each year and additionally in June of the following year, the Commissioners and the DEQ will identify important or contentious environmental issues to explore further (Watch List of Emerging Issues). The Commission and the DEQ will define generally what the exploration of each issue will consist of, and the DEQ will organize and carry out actions.

For example, the Commission may desire research, scientific or policy analyses, public discussions among Commissioners or other actions. The DEQ will be responsible for explaining the associated workload to the Commission, and describing the feasibility of the undertaking, including impact on staff.

Evaluation of Actions

In June and December of 2007, the DEQ will schedule a discussion during the regular EQC meeting to evaluate the success of supporting Commissioners' desired level of involvement, and also for an informal evaluation of the EQC/DEQ relationship.

Attachment B for Agenda Item E
Environmental Quality Commission Meeting
June 21, 2007

Environmental Quality Commission
Watch List of Emerging Environmental Issues
In Alphabetical Order

Topic	Description	Planned or Potential Actions	Lead DEQ Staff
Air Quality particulate matter standards	Should the DEQ's PM2.5 standards be more stringent than federal requirements?	Informational/policy discussion at December, 2007 EQC.	Ginsburg
Benzene	Given the EPA standard for this chemical, what standard is right for Oregon? Should we stop looking at area wide conditions and instead look at concentrations of Benzene?	Informational item October EQC.	Ginsburg
Carbon dioxide	Carbon cap and trade. Who is going to certify? Climate Trust means Oregon knows more about this than others.		Ginsburg
Climate Change	What we know about it and what actions are/should/can be taken.	Informational item jointly with DOE. Date TBD	Ginsburg
Cumulative Impacts	What are the effects of multiple pollutants in our environment?		
Dental amalgam	Commission wants to be kept informed.	(Possible) informational Item at regular EQC meeting. No date set.	Aunan/ Kiphut
Diesel	What are the policy implications of diesel air	(Possible) informational Item/Workshop for	Ginsburg

Topic	Description	Planned or Potential Actions	Lead DEQ Staff
	pollution from off-road vehicles and engines? New technologies for cars, e.g., diesel passenger cars.	EQC at a regular meeting. No date set.	
Fish consumption study	What study methods are best for gathering the necessary data to decide what the fish consumption level should be?	Informational Item and discussion with EQC in August, 2007 and another informational item in October, 2007.	Aunan/ Baumgartner
Funding stability	If the DEQ cannot rely on historic federal funding levels, what should we be doing about funding now?	Unknown	Mangin
Lean government	Many states are using techniques such as Value Stream Mapping, Kaizen and Six Sigma for process improvement. What should DEQ undertake in this area? What role should computerization play in process improvement?	EMT presentation from Bob Zimmerman, Deputy Director of Delaware DNR held in March, 2007. DEQ is now selecting the first process improvement project, which will likely be in the Office of Compliance and Enforcement.	Pedersen/Mangin
Mixing Zones	Are mixing zones the best avenue for determining compliance for toxics? What are the ramifications of eliminating them? The EQC may wish to hear an update on the status of DEQ work on mixing zones.	(Possible) Informational Item for EQC. No date set.	Aunan
Newburg Pool	Deformed fish in Willamette—any new data? Actions?	Fold into a "State of the Water" discussion at regular EQC meeting. Mid-to-late 2008 date TBD.	Aunan/ Pettit
Non-point source air pollution		2007 Regional Haze SIP update at December, 2007 EQC meeting. Researching state-by-state strategies and	Ginsburg

Topic	Description	Planned or Potential Actions	Lead DEQ Staff
		programs for area source emission controls.	
Ozone	Should we be more proactive? Look at more stringent standards than EPA?	Rulemaking at February, 2007 EQC meeting.	Ginsburg
Pharmaceuticals	DEQ and others have efforts completed or underway to address pharmaceuticals, including trace compounds from sewage treatment plants. Does the EQC desire periodic reports on those activities and results?	Informational update for EQC at regular meeting, with ACWA. Date TBD	Aunan
Public Health	Commission wants to hear more about what we could be doing, e.g., on ozone. Chair Hampton's three points: 1. What is the difference between area sources on public health? 2. How comparable is industrial source effect? 3. Are there potential things that could be done, and how doable are they? It's frustrating to be talking about just 1% of the problem. (During February, 2007 EQC meeting). Emphasis on asthma. What opportunities are available to leverage the link between the environment and public health? DEQ suggests an informational presentation by Gail Shibley of the Health Division and DEQ, including where we are partnering. How should DEQ ensure that we make the connection between environment and public health?	The EMT will have a joint meeting (after the legislative session) with senior managers in the Health Division to discuss opportunities for increased collaboration, and then will make a joint presentation to the EQC.	Pedersen/Simons/ Shibley

Topic	Description	Planned or Potential Actions	Lead DEQ Staff
	Should DEQ look at public health risk by area or by class, e.g., gas station operators. Public education with Health? Health forum on 1) smoke and 2) fish consumption?		
Treated wood and formaldehyde	What options and what ramifications are there to alternatives to importing treated wood products?		Kiphut

Attachment C for Agenda Item E
Environmental Quality Commission Meeting
June 21, 2007

Summary of Actions Taken to Implement EQC Involvement Actions

Below is a summary of actions taken between December and June, 2007, as prescribed in the final report on "Environmental Quality Commission Involvement in DEQ's Direction". Some future actions are also described. The prescribed actions are extracted directly from the report, and descriptions of actions taken to date follow in a different typeface.

Public Involvement

The goal of public dialogue is to increase the public's confidence in the basis for regulation, and to involve citizens in environmental decisions and issues.

1. **Continue the Town Hall meetings** with no more than one per year in any one location, scheduling them around other planned meetings or activities. Generally, EQC meetings outside the Portland Metro area will be scheduled to accommodate a Town Hall meeting.

   Actions Taken:
   a. **The Environmental Quality Commission hosted a Town Hall meeting in Bend on Thursday, April 29. About 20 people attended.**

2. **Conduct workshops prior to complex public hearings**, like we are doing for mixing zones. Gather relevant documents and post them on the Internet.

   Actions Taken:
   a. **A series of workshops is underway leading up to a review of the fish consumption rate.**

Annually, during review of the Rulemaking Agenda, the EQC and DEQ will **determine which public hearings will include Commissioner participation**, facilitation or presiding officer functions. The DEQ will follow up with the Commission during the rulemaking process to affirm the choices and to schedule public hearings.

During the course of the year, there may be other hearings not related to rules in which the EQC may wish to participate. DEQ staff will notify Commissioners about important issues or activities in their particular geographic area.

Actions Taken:
The DEQ and the EQC reviewed the Rulemaking Agenda in December of 2006. Individual Commissioners indicated their interest in specific rulemakings:
a. **Lynn Hampton wants to be kept informed about the commercial composting rule.**

b. **The Commissioners all wish to stay involved in rulemaking on beneficial uses of solid wastes. There is currently no rule underway on this topic, but the Land Quality program has a placeholder in effect for future rulemaking.**
c. **Bill Blosser wants to be involved in the turbidity rulemaking. This complex rule is appropriate for a workshop as described in 2, above.**
d. **Commissioner Hampton wishes to be kept informed about the Concentrated Animal Feeding Operation (CAFO) rule, which would be conducted with the Department of Agriculture and would exclude dry manure operations from having to apply for a permit.**

3. **Continue to expand DEQ's understanding about the best ways to engage our many audiences** by employing the premise of being fair, open and honest in the way we conduct our outreach. Depending on the issue, we will employ different techniques. Public workshops are better suited to complex issues such as mixing zones. Advisory committees, public hearings and information sessions may also be used, in addition to other outreach methods. Where possible and practical, DEQ will invite one or more EQC members to participate.

Actions Taken:
a. **No specific actions taken to date. Transition from Nina Deconcini to new manager in the Office of Communications and Outreach. Nina has accepted an appointment as Northwest Region Administrator.**

EQC Involvement in DEQ Direction

4. At the EQC's request or the DEQ's recommendation, **Commissioners will hold informal discussions among themselves, open to the public**, about critical environmental issues likely to appear before the EQC. The purpose of these discussions will be to explore the issues and to inform the Commissioners in preparation for future decisions. These discussions will normally occur during regular EQC meetings, or in rare cases, at a special meeting.

Actions Taken:
a. **Environmental Quality Commissioners and Barbara Craig, Board of Forestry member, held an informal discussion about smoke management issues during the April 20, 2007 EQC meeting. The conversation focused on collaboration among agencies and the balance between forest health and public health.**

5. **Strategic Directions update (September – November odd years):**

Although the strategic directions cover five years, conditions may change during that time that warrant interim updates. The DEQ Director and Executive Management Team will determine what revisions are needed to the strategic directions and prepare a report for Commission consideration by September of each odd year. This initial report will be a high-level description of what major changes may be needed in the Strategic Directions, based on legislative action and changing circumstances. Following the high-level description of major changes needed, the DEQ Director and Executive Management Team commit to work with the EQC, integrating the Commissioners' guidance and comments into the new strategic directions. The Commission will officially adopt the final revised strategic directions, and DEQ will publish and distribute the document every odd year, unless no revisions are necessary. These collaborations will take place via discussions at regular

Commission meetings and during retreats, depending on the extent of change needed. Every five years, the DEQ and the EQC will assess the need for a major overhaul of the Strategic Directions, beginning in 2011.

Actions Taken:

a. **The October, 2007 EQC meeting will include a discussion on strategic direction, legislative action and updates needed, if any.**

6. **Performance Measures review** (semi-annually, in February and September, or the EQC meeting closest to these months.

   The DEQ will review and discuss performance results with the EQC.

   Actions Taken:

   a. **The Environmental Quality Commission heard and discussed a report on external measures during the February 22, 2007 meeting.**
   b. **The DEQ will present the internal measures report at the August, 2007 meeting.**

7. **Legislative Agenda** (budget development and legislative concepts:

   During November-December of odd years, following the strategic directions update, the DEQ will consult with the EQC to recommend and obtain direction and Commissioners' input on the upcoming legislative agenda and budget development.

   Then, during January-August of even years the DEQ will develop the budget request and the legislative strategy in collaboration with the EQC for the upcoming legislative session. The budget and legislative request will be guided by the recently-updated strategic directions. The bulk of the responsibility for developing these products lies with the DEQ, taking guidance and comment from the EQC.

   DEQ will present updates and seek guidance from the EQC at each meeting scheduled during this timeframe. At the EQC meeting prior to September 1, the date when the agency budget request must be submitted, the Chairperson of the Environmental Quality Commission will officially certify the DEQ's budget submission. In addition, DEQ will provide regular updates on budget development and other legislative matters after the Governor's Recommended Budget is released and during legislative sessions.

   Actions Taken:

   a. **The Environmental Quality Commission participated actively and directly in developing the agency strategic plan, budget request and legislative program.**
   b. **The DEQ has provided the Commission with a budget and legislative update at each meeting since the current legislative session opened.**

8. **Rulemaking agenda** (December each year):

   The DEQ's rulemaking agenda covers a rolling two-year period and is updated annually. In December of each year, the DEQ will review the newly-updated rulemaking agenda with the Commission. During the review, Commissioners will indicate to the DEQ which rules call for direct involvement of one or more Commissioners, and suggest what their role(s) might be. For example,

Commissioners may elect to attend or officiate at public hearings and workshops, or to chair advisory committees for certain rulemakings. For controversial rules, additional public hearings might be held by the EQC to increase public comment and dialogue.

Commissioners may elect to designate more routine rulemakings, e.g., housekeeping or adoption of federal regulations by reference, as eligible for streamlined processing by the EQC, using a consent agenda or other similar approach.

a. **The Commission conducted a thorough review of the Rulemaking Agenda in December of 2006, and indicated their interest in being involved during the rulemaking process, as described in 3, above.**
b. **Commissioner Hampton attended a community meeting in Clatskanie on January 30 regarding proposed industrial development along the lower Columbia River. She reported her observations to the other Commissioners during the February 22, 2007 EQC meeting.**
c. **Commissioners Hampton and Uherbelau attended a fish consumption workshop in Portland.**

9. **Emerging issues** (semi-annually in June and December):

During the rulemaking discussion in December of each year and additionally in June of the following year, the Commissioners and the DEQ will identify important or contentious environmental issues to explore further (Watch List of Emerging Issues). The Commission and the DEQ will define generally what the exploration of each issue will consist of, and the DEQ will organize and carry out actions. For example, the Commission may desire research, scientific or policy analyses, public discussions among Commissioners or other actions. The DEQ will be responsible for explaining the associated workload to the Commission, and describing the feasibility of the undertaking, including impact on staff.

Actions Taken:

a. **The Watch List of Emerging Issues was formed during the December, 2006, EQC meeting (See Attachment B). Follow up actions to date are:**
    i. **Ozone: The Environmental Quality Commission adopted the Portland-Vancouver and Salem Ozone Maintenance Plan in February, 2007.**
    ii. **Temperature and Mixing Zones: The Commission updated DEQ's proposed standards to align with EPA's approval requirements in February, 2007.**
b. **Planned actions for the remainder of 2007 include:**
    i. **Benzene: Informational item on benzene during the October, 2007 EQC meeting**
    ii. **Fish Consumption: In-depth discussion of fish consumption issues during the August, 2007 EQC meeting and again in October.**
    iii. **Non-point source air pollution: 2007 Regional Haze SIP update in December, 2007.**

Environmental Quality Commission Meeting
June 21, 2007

Agenda Item E, Informational Item: Follow Up on Implementation of the EQC Involvement Report and Watch List of Emerging Issues

Talking Points

What this presentation will cover:

1. Background
2. Purpose of today's discussion
3. Review public involvement actions
4. Review DEQ direction actions
5. Review Watch List of Emerging Environmental Issues
6. Commission discussion and feedback to DEQ

1. Background

In the Spring of 2006, you expressed a desire to be more actively involved in DEQ's direction.

Stephanie appointed a four-person team to develop and present recommendations for supporting and facilitating your involvement: Greg Aldrich, Nina Deconcini, Helen Lottridge and Larry McAllister.

We brought our report to you in December of 2006. After a robust discussion and a number of improvements to the recommended actions, we proceeded with implementation.

You received a copy of the final report in March of 2007, and it is also Attachment A to the staff report for this agenda item.

The actions we settled on fall into two broad categories (see Bates stamped page numbers 8-10):

a. Public Involvement; and
b. EQC Involvement in DEQ Direction

Included in b. above is the Watch List of Emerging Environmental Issues, in which you identified important or contentious issues to explore further or at least to monitor.

2. **Purpose of today's discussion**
   The final report calls for you to evaluate the success of our mutual actions in June and again in December of 2007.

   At the end of my overview, I will pose some questions to prompt that discussion.

3. **Review public involvement actions**
   Attachment C to the staff report (see Bates stamped page 16) summarizes the actions taken so far.

4. **Review DEQ direction actions**
   Continue walk-through of actions in Attachment C.

5. **Review Watch List of Emerging Environmental Issues**
   Attachment B to the staff report (see Bates stamped page 12) summarizes the topics on the list and planned or potential actions.

6. **Commission discussion and feedback to DEQ**
   - **a.** What is your overall evaluation of the actions implemented to date?
   - **b.** Do the actions sufficiently support the level of involvement desired by the EQC?
   - **c.** What changes, if any, are needed in the Watch List of Emerging Issues?
   - **d.** What is your sense of the overall relationship between the EQC and the Department?

State of Oregon
Department of Environmental Quality Memorandum

Date: June 4, 2007

To: Environmental Quality Commission

From: Stephanie Hallock, Director S. Hallock

Subject: Agenda Item F, Rule Adoption: Water Quality Permit Fee Increase and Criteria for Termination of Septic Permits
June 21-22, 2007, EQC Meeting

Why this is Important

This proposed rulemaking provides fee revenue for administering DEQ's National Pollutant Discharge Elimination System (NPDES) and Water Pollution Control Facility (WPCF) permit programs, and simplifies regulation of onsite septic systems.

Department Recommendation

The Department recommends that EQC adopt the proposed amendments to OAR Division 45 as set out in Attachment A of the Staff Report for agenda Item F.

Fee Increase

This fee increase would enable continuation of the implementation of the Blue Ribbon Committee's (Committee) recommendations for improving Oregon's wastewater permitting program. The Committee – comprised of industry, environmental, and local government representatives – convened in 2002 and made a variety of recommendations to improve water quality permitting and simplify DEQ's permit fee structure. Recommendations also included increasing fees and implementing an annual fee increase to help address increasing costs associated with administering DEQ's water quality permit programs.

The 2005 Legislature approved the fees in DEQ's budget and incorporated the Committee's recommendation for annual fee increases into Senate Bill 45 (codified in ORS 468B.051), which states that "Not more than once each calendar year, the Environmental Quality Commission may increase the fees established under ORS 468.065 for permits issued under ORS 468B.050. The amount of the annual increase may not exceed the anticipated increase in the cost of administering the permit program or three percent, which ever is lower." This fee increase mechanism is intended to help DEQ address water quality program salary and benefit cost increases.

In July 2006, to implement DEQ's approved budget, the EQC increased wastewater permit fee revenue by 11 percent to fund positions that would

otherwise have been lost and to add 2.5 new positions. The fee increase proposed in Attachment A reflects DEQ's first implementation of the annual fee increase authorized by Senate Bill 45.

To establish the amount of the proposed annual increase, DEQ compared the estimated wastewater permitting costs for 2005-2007 with projected costs for 2007-2009. DEQ estimates that costs will increase 13.9 percent from biennium to biennium, which is well over the three percent annual increase allowed by Senate Bill 45. Therefore, in accordance with ORS 468B.051, this rulemaking increases permit fees three percent for all NPDES and WPCF permit holders, except for suction dredge permittees whose fees are set in statute. The fee increase also does not apply to WPCF permits issued under DEQ's onsite (septic system) program because DEQ has not been able to conduct outreach to advise permit holders of the increase.

DEQ recognizes that the three percent increase does not fully cover water quality permit program costs. To address the funding gap, DEQ will continue to look for program administration efficiencies. Also, the Joint Ways & Means Committee has approved DEQ's budget, which includes a five percent increase of permit fee revenue and approximately $130,000 in General Funds. This funding continues the Blue Ribbon Committee recommendations to add three new staff to the wastewater permit program to support development of up-to-date and consistent permits, and improve timeliness and enforcement for permit violations. DEQ's budget needs approval by the full House and Senate before going to the Governor for signature.

The rulemaking also addresses some minor errors in the fee tables included in the 2006 rulemaking. Fees referred to in OAR 340-045-075 but inadvertently left out of Tables 70A and 70C in last year's rulemaking have been reinserted. In Table 70G, three of the permit category descriptions have been modified to be consistent with the cover page of the applicable general permit, and a column with the designations NPDES and WPCF has been added for clarity.

Onsite Septic Permit Rules

Most individual onsite sewage disposal systems are authorized under a one-time construction permit issued under OAR chapter 340, division 71. The statutes governing the onsite program allow counties to act as DEQ's agent for approving these construction permits. Twenty three counties perform the permitting function as DEQ's agent, while DEQ operates the program in 13 counties.

Historically, septic systems using innovative technology were required to have WPCF permits. The permits are expensive, require more reporting, must be renewed every ten years, and are more appropriately issued to large commercial

facilities.

In March 2005, the EQC adopted a rule change that allows innovative onsite septic systems to be regulated under county-issued construction permits instead of DEQ-issued WPCF permits. A component of the 2005 rule change allowed holders of DEQ-issued WPCF permits to terminate their permits and operate systems under county-issued construction permits if certain criteria were met. While many of these permits were converted, some were not because they did not meet all of the criteria.

This proposed rulemaking allows more onsite septic permit holders to terminate DEQ-issued permit and operate under county-issued permits, if they maintain a service contract with a maintenance provider and submit an annual report to the county regarding the system's performance.

Effect of Rule

Fee Increase

As a result of this rulemaking, fees for all permits will increase by three percent except for onsite septic systems and suction dredge permits (General Permit 700-PM). Fees for the suction dredge permit are set in statute and therefore can only be changed by the legislature.

Onsite Septic Permit Rules

Changing the rules to provide criteria under which homeowners and small businesses with onsite septic systems may terminate their WPCF permits with DEQ will affect between 20 and 30 permit holders (less than five percent of approximately 730 systems covered). Those persons who convert to county-issued permits will continue to operate under the same level of protection as under DEQ-issued permits; experience less burdensome regulation; and will pay an annual fee of approximately $50 (fee varies by county) instead of $300. The permit holders' cost savings can be applied toward the service contract for ongoing maintenance of the system.

This rule change will apply in all counties, regardless of who administers the program for the county. Any former permit holder failing to maintain a septic system service agreement and/or failing to submit an annual report to the county may be required by DEQ to revert back to DEQ regulation.

Commission Authority

The Commission has authority to take this action under ORS 454.625, 468.020, 468.065, and 468B.051.

Stakeholder Involvement

The Blue Ribbon Committee served as the advisory committee to DEQ on the proposed fee changes. The committee met with DEQ in the fall of 2006 and was given a chance to review and comment on the changes being proposed. Staff received no comments on the proposed changes.

DEQ staff presented the onsite septic permit rule changes at contract county meetings, an annual onsite septic conference, and at an Oregon Onsite Wastewater Association meeting. At these meetings, staff received comments supportive of the rule changes.

Public Comment

A public comment period addressing both the fee increase and onsite septic permit rules extended from February 1, 2007 to March 2, 2007 and included public hearings in Eugene, Bend, Medford, Pendleton, and Portland. Results of public input are provided in Attachment B. In summary, DEQ received no written or oral comments.

Key Issues

No key issues were raised during the rulemaking process.

Next Steps

DEQ will update its fee tables and web site to reflect the fee increase. Staff will inform permit coordinators and all water quality staff of the proposed changes to the fee and onsite septic rules.

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

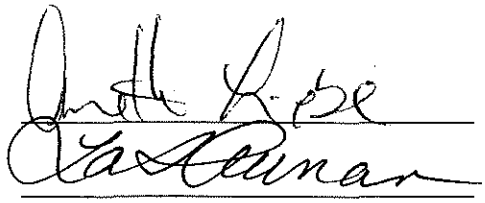
Available Upon Request

1. Legal Notice of Hearing
2. Cover Memorandum from Public Notice
3. Advisory Committee Membership and Report
4. Rule Implementation Plan

Approved:

Section:

Division:



Report Prepared By: Melissa Aerne

Phone: (503) 229-5656

Attachment A

Proposed Rule Revisions to

OAR 340-045-0075: Permit Fee Schedule

Table 70A: Industrial NPDES & WPCF Individual Permit Application and Modification Fees

DEQ Class	New Permit Application Fee[1]	Major Modification at Permit Renewal	Major Modification Prior to Permit Expiration	Minor Modification	Permit Transfer
Tier 1	~~$42,193~~ $43,459	~~$10,599~~ $10,917	$21,695	~~$738~~ $760	~~$67~~$69
Tier 2	~~$8,491~~ $8,746	~~$2,694~~ $2,775	$4,336	~~$738~~ $760	~~$67~~ $69
Special WPCF Permits issued pursuant to OAR 340-045-0061	~~$402~~ $415	N/A	N/A	N/A	~~$67~~$69

1. New permit applications must include the annual fee specified in Table 70B in addition to the new permit application fee.

70B: Industrial NPDES & WPCF Individual Permit Annual Fees

Type	Description	NPDES Tier 1	NPDES Tier 2	WPCF Tier 1	WPCF Tier 2
B01	Pulp, paper, or other fiber pulping industry	~~$14,753~~$15,196	N/A	~~$13,693~~ $14,104	N/A
	Food or beverage processing - includes produce, meat, poultry, seafood or dairy for human, pet, or livestock consumption				
B02	Washing or Packing only	N/A	~~$2,052~~ $2,113	N/A	~~$1,887~~$1,943
B03	Processing – small. Flow ≤ 0.1 mgd, or 0.1 < flow < 1 mgd for less than 180 days per year	N/A	~~$3,066~~ $$3,158	N/A	~~$2,901~~ $2,988
B04	Processing – medium. 0.1 mgd < Flow < 1 mgd for 180 or more days per year, or flow ≥ 1 mgd for less than 180 days per year	N/A	~~$4,327~~ $4,456	N/A	~~$4,162~~ $$4,287

Type	Description	NPDES Tier 1	NPDES Tier 2	WPCF Tier 1	WPCF Tier 2
B05	Processing – large. Flow ≥ 1 mgd for 180 or more days per year.	~~$14,753~~$15,196	~~$12,693~~$13,352	~~$13,693~~ $14,104	~~$12,798~~$13,182
	Primary smelting or refining				
B06	Aluminum	~~$14,753~~$15,196	~~$12,963~~ $13,352	~~$13,693~~ $14,104	~~$12,798~~ $13,182
B07	Non-ferrous metals utilizing sand chlorination separation facilities	~~$14,753~~$15,196	~~$12,963~~ $13,352	~~$13,693~~ $14,104	~~$12,798~~ $13,182
B08	Ferrous and non-ferrous metals not elsewhere classified	~~$8,436~~$8,690	~~$6,647~~ $6,846	~~$7,377~~ $7,598	~~$6,482~~ $6,676
B09	Chemical manufacturing with discharge of process wastewater	~~$14,753~~$15,196	~~$12,963~~ $13,352	~~$13,693~~ $14,104	~~$12,798~~ $13,182
B10	Cooling water discharges in excess of 20,000 BTU per sec	~~$8,436~~$8,690	~~$6,647~~ $6,846	~~$7,377~~$7,598	~~$6,482~~ $6,676
	Mining Operations – includes aggregate or ore processing				
B11	Large (over 500,000 cubic yards per year or involving chemical leaching)	~~$14,753~~$15,196	~~$12,963~~$13,352	~~$13,693~~$14,104	~~$12,798~~$13,182
B12	Medium (100,000 to 500,000 cubic yards per year)	N/A	~~$4,539~~$4,675	N/A	~~$4,374~~$4,505
B13	Small (less than 100,000 cubic yards per year)	N/A	~~$1,381~~$$1,422	N/A	~~$1,216~~$1,252
	All facilities not elsewhere classified which dispose of process wastewater (includes remediated groundwater)				
B14	Tier 1 sources	~~$14,753~~$15,196	N/A	~~$13,693~~$14,104	N/A
B15	Tier 2 sources	N/A	~~$2,856~~$2,942	N/A	~~$2,692~~$2,772
B16	All facilities not elsewhere classified which dispose of non-process wastewaters (for example: small cooling water discharges, boiler blowdown, filter	N/A	~~$1,912~~$1,969	N/A	~~$1,747~~$1,799

Type	Description	NPDES Tier 1	NPDES Tier 2	WPCF Tier 1	WPCF Tier 2
	backwash)				
B17	Dairies, fish hatcheries and other confined feeding operations on individual permits	N/A	~~$1,673~~$1,723	N/A	~~$1,508~~$1,553
B18	All facilities which dispose of wastewater only by evaporation from watertight ponds or basins	N/A	N/A	N/A	~~$1,110~~$1,143
	Timber and Wood Products				
B19	Sawmills, log storage, instream log storage	~~$4,138~~$4,262	~~$2,348~~$2,418	~~$3,078~~$3,170	~~$2,183~~$2,248
B20	Hardboard, veneer, plywood, particle board, pressboard manufacturing, wood products	~~$4,376~~$4,508	~~$2,587~~$2,664	~~$3,317~~$3,416	~~$2,422~~$2,494
B21	Wood preserving	~~$3,702~~$3,813	~~$1,912~~$1,969	~~$2,642~~$2,721	~~$1,747~~$1,799

Table 70C: Domestic NPDES & WPCF Individual Permits

Description	Type	Classification Criteria (Based on Average Dry Weather Design Flow, or as defined in 40CFR)	Class	New Permit App. Fee[1]	Base Annual Fee, 5 year permits	Base Annual Fee, 10 year permits	Additional Annual Fees	Major Modification	Minor Modification
Nondischarging lagoons	E	Not applicable	Tier 2	~~$2,750~~ ~~$2,833~~	N/A	~~$879~~$905	Additional fees Include population and pretreatment fees. See tables 70D and 70E for determination of these fees.	~~$1,409~~$1,451	~~$738~~ ~~$760~~
Lagoons that discharge to surface waters	Db	Flow < 1 mgd	Tier 2	~~$5,433~~ ~~$5,596~~	~~$1,053~~$1,085	N/A		~~$2,750~~$2,833	~~$738~~ ~~$760~~
	C2b	1 mgd ≤ Flow	Tier 1	~~$26,899~~ ~~$27,706~~	~~$2,775~~$2,	N/A		$13,887	~~$738~~ ~~$760~~
	C1b	2 mgd ≤ Flow < 5 mgd	Tier 1	~~$26,899~~ ~~$27,706~~	~~$3,803~~$3,918	N/A		~~$13,483~~$13,887	~~$738~~ ~~$760~~
	Bb	5 mgd ≤ Flow < 10 mgd	Tier 1	~~$26,899~~$27,706	~~$5,469~~$5,633	N/A		~~$13,483~~$13,887	~~$738~~ ~~$760~~
Treatment systems other than lagoons	Da	Flow < 1 mgd	Tier 2	~~$5,433~~ ~~$5,596~~	~~$1,495~~$1,540	~~$1,387~~$1,429		~~$2,750~~$2,833	~~$738~~ ~~$760~~
	C2a	1 mgd ≤ Flow	Tier 1	~~$26,899~~$27,706	~~$4,720~~$4,	~~$4,043~~$4,164		~~$13,483~~$13,887	~~$738~~ $760
	C1a	2 mgd ≤ Flow < 5 mgd	Tier 1	~~$26,899~~$27,706	~~$6,956~~$7,165	~~$6,279~~$6,467		~~$13,483~~$13,887	~~$738~~ ~~$760~~
	Ba	5 mgd ≤ Flow < 10 mgd	Tier 1	~~$26,899~~$27,706	~~$10,344~~$10,654	~~$9,666~~$9,956		~~$13,483~~$13,887	~~$738~~ ~~$760~~
	A3	10 mgd ≤ Flow < 25 mgd	Tier 1	~~$26,899~~$27,706	~~$16,135~~$16,619	N/A		~~$13,483~~$13,887	~~$738~~ ~~$760~~
	A2	25 mgd ≤ Flow < 50 mgd	Tier 1	~~$26,899~~$27,706	~~$34,235~~$35,262	N/A		~~$13,483~~$13,887	~~$738~~ ~~$760~~
	A1	≥ 50 mgd	Tier 1	~~$26,899~~$27,706	~~$58,250~~$59,998	N/A		~~$13,483~~$13,887	~~$738~~ ~~$760~~
Septage alkaline stabilization facilities	F	Not applicable	Tier 2	~~$738~~ ~~$760~~	N/A	~~$302~~$311	N/A	N/A	~~$335~~ ~~$345~~

	Type	Classification	Clas	New Permit	Base	Base	Additional	Major	Minor

Description		Criteria (Based on Average Dry Weather Design Flow, or as defined in 40CFR)	s	App. Fee[1]	Annual Fee, 5 year permits	Annual Fee, 10 year permits	Annual Fees	Modification	Modification
Municipal Stormwater Permits: MS4 Phase 1, Phase 2 and UIC Permits	MS4-1	See 40 CFR §122.26	N/A	~~$8,491~~$8,746	~~$1912~~$1,969	N/A	N/A	N/A	~~$738~~$760
	MS4 -2		N/A	~~$380~~$392	~~$391~~$403	N/A	N/A	N/A	~~$738~~$760
	UIC	As defined in 40 CFR parts 9, 144, 145 and 146	N/A	~~$8,491~~$8,746	N/A	~~$1,747~~$1,799	N/A	N/A	~~$738~~$760

1. New permit applications must include the annual fee in addition to the new permit application fee.

Table 70D: Domestic NPDES & WPCF Annual Population Fee

Population range	Annual fee
500,000+	~~$78,260~~ $80,608
400,000 to 499,999	~~$59,869~~$61,665
300,000 to 399,999	~~$41,478~~$42,722
200,000 to 299,999	~~$23,087~~$23,779
150,000 to 199,999	~~$18,671~~$19,231
100,000 to 149,999	~~$12,298~~$12,667
50,000 to 99,999	~~$7,714~~$7,946
25,000 to 49,999	~~$3,466~~$3,570
15,000 to 24,999	~~$1,973~~$2,032
10,000 to 14,999	~~$1,286~~$1,324
5,000 to 9,999	~~$783~~$806
1,000 to 4,999	~~$235~~$242
100 to 999	~~$45~~$46
0 to 99	$0

Table 70E: Annual Pretreatment Fees

Pretreatment Fee	~~$1,342~~$1,382
Significant Industrial User	~~$447~~ $461 per industry

Table 70F: Technical Activity and Other Fees

Activity	Fee
New or substantially modified sewage treatment facility	~~$6,171~~$6,357
Minor sewage treatment facility modifications and pump stations	~~$671~~$691
Pressure sewer system or major sewer collection system expansion	~~$470~~$484
Minor sewer collection system expansion or modification	~~$134~~$138
New or substantially modified water pollution control facilities using alkaline agents to stabilize septage	~~$671~~$691
Permit Transfer	~~$67~~$69

Table 70G: General NPDES &WPCF Permits

No.	Type	Description	New Permit Application Fee[1]	Annual Fee
100-J	NPDES	Cooling water/heat pumps	~~$173~~$178	~~$391~~$403
200-J	NPDES	Filter Backwash	~~$173~~$178	~~$391~~$403
300-J	NPDES	Fish Hatcheries	~~$274~~$282	~~$391~~$403
400-J	NPDES	Log Ponds	~~$173~~$178	~~$391~~$403
500-J	NPDES	Boiler blowdown	~~$173~~$178	~~$391~~$403
600	WPCF	Offstream small scale mining – processing less than 5 cubic yards of material per day, or less than 1500 cubic yards per year	$0	$0
		Offstream small scale mining – processing 1,500 to10,000 cubic yards of material per year	~~$173~~$178	$0
700-PM	NPDES	Suction dredges[2]	$0	$25
900-J	NPDES	Seafood processing	~~$173~~$178	~~$391~~$403
1000	WPCF	Gravel mining	~~$173~~$178	~~$391~~$403
1200-A	NPDES	Storm Water: Sand, gravel, and other non-metallic mining	~~$380~~$392	~~$391~~$403
1200-C[3]	NPDES	Storm Water: Construction activities – 1 acre or more	~~$380~~$392	~~$391~~$403
1200-CA	NPDES	Storm Water: ~~Municipal c~~Construction activities performed by public agencies – 1 acre or more	~~$380~~$392	~~$391~~$403
1200-COLS[3]	NPDES	Stormwater: industrial stormwater discharge to Columbia Slough	~~$380~~$392	~~$391~~$403
1200-Z[3,4]	NPDES	Storm Water: Industrial	~~$380~~$392	~~$391~~$403

1400-A	NPDES	~~Seasonal wineries, crop preparation for market, fresh pack produce~~Wineries and seasonal fresh pack operations whose wastewater flow does not exceed 25,000 gallons per day and is only disposed of by land irrigation.	~~$173~~$178	~~$229~~$236
1400-B	WPCF	~~Canneries; processed foods; meat processing and packing; poultry, marine, and other animal products processing; oils and extracts~~ Wineries and small food processors not otherwise eligible for a 1400A general permit.	~~$274~~$282	~~$391~~$403
1500-A	NPDES	Petroleum hydrocarbon clean-up	~~$274~~$282	~~$391~~$403
1500-B	WPCF	Petroleum hydrocarbon clean-up	~~$274~~$282	~~$391~~$403
1700-A	NPDES	Vehicle & equipment wash water	~~$380~~$392	~~$391~~$403
1700-B	WPCF	Vehicle & equipment wash water	~~$380~~$392	~~$391~~$403
1900-J	NPDES	Non-contact geothermal heat exchange	~~$380~~$392	~~$391~~$403
		Other	~~$380~~$392	~~$391~~$403

1. New permit applications must include both the new permit application fee and the first year's annual fee.
2. A person registered under the 700-PM permit may pre-pay $100 for 5 years of registration in lieu of the $25 annual fee.
3. Some of these permits are administered by public agencies under contract with DEQ.
4. This permit incorporates the 1300-J permit.

Table 70H: General Permit Activity and Other Fees

Disposal system plan review[1]	~~$419~~$432
Site inspection and evaluation[1]	~~$1,051~~$1,082
Permit Transfer	~~$67~~$69

1. These fees apply when these activities are required for DEQ's review of the application.

(1) Protection of public waters from public health hazards. An agent may not authorize installation or use of a system that is likely to pollute public waters or create a public health hazard. If, in the judgment of the agent, the minimum standards in this division will not adequately protect public waters or public health on a particular site, the agent must require a system to meet requirements that are protective. This may include but is not limited to increasing setbacks, increasing drainfield sizing, or using an alternative system. The agent must provide the applicant with a written statement of the specific reasons why more stringent requirements are necessary.

(2) Approved treatment and dispersal required. All wastewater must be treated and dispersed in a manner approved in accordance with these rules.

(3) Prohibited discharges of wastewater. A person may not discharge untreated or partially treated wastewater or septic tank effluent directly or indirectly onto the ground surface or into public waters. Such discharge constitutes a public health hazard and is prohibited.

(4) Prohibited discharges to systems. A person may not discharge into any system cooling water, air conditioning water, water softener brine, groundwater, oil, hazardous materials, roof drainage, or other aqueous or nonaqueous substances that are detrimental to the performance of the system or to groundwater.

(5) Increased flows prohibited. Except where specifically allowed by this division, a person may not connect a dwelling or commercial facility to a system if the total projected sewage flow would be greater than that allowed under the original system construction-installation permit.

(6) System capacity. Each system must have adequate capacity to properly treat and disperse the maximum projected daily sewage flow. The projected quantity of sewage flow must be determined from **Table 2** or other information the agent determines to be valid.

(7) Material standards. All materials used in onsite systems must comply with standards in this division and OAR chapter 340, division 073.

(8) Encumbrances. Before a permit to install a new system may be issued, the site for the new system must be approved pursuant to OAR 340-071-0150 and be free of encumbrances (such as easements or deed restrictions) that could prevent the installation or operation of the system from conforming with the rules of this division.

(9) Plumbing fixtures connected. All plumbing fixtures in dwellings, commercial facilities, and other structures from which sewage is or may be discharged must be connected to and discharge into an approved area-wide sewerage system or an approved onsite system that is not failing.

(10) Future connection to sewerage system. Placement of plumbing in buildings to facilitate connection to a sewerage system is encouraged in areas where a district has been formed to provide sewerage facilities.

(11) Property lines crossed: All or part of an onsite system, including areas for future repair or replacement, may be located on one or more lots or parcels different from the lot or parcel on which the facility the system serves is located. The lots and parcels may be under the same or different ownership.

(a) For each lot or parcel different from and under different ownership than the lot or parcel served, the owner of the lot or parcel served must ensure that a utility easement and covenant against conflicting uses is executed and recorded in such owner's favor, on a form approved by the agent, in the county land title records. The easements and covenants must accommodate the parts of the system, including a 10-foot setback surrounding the areas for future repair or replacement, that lie beyond the property line of the facility served and must allow entry by the grantee, successor, or assigns to install, maintain, and repair the system.

(b) For each lot or parcel different from but under the same ownership as the lot or parcel served, the owner of the property must execute and record in the county land title records, on a form approved by the department, an easement and a covenant in favor of the State of Oregon:

(A) Allowing the state's officers, agents, employees, and representatives to enter and inspect, including by excavation, that portion of the system, including setbacks, on the servient lot or parcel;

(B) Agreeing not to put that portion of the servient lot or parcel to a conflicting use; and

(C) Agreeing, upon severance of the lots or parcels, to grant or reserve and record a utility easement and covenant against conflicting uses, in a form approved by the department, in favor of the owner of the lot or parcel served by the system in accordance with subsection (a) of this section.

(12) Initial and replacement absorption area. Except as provided in specific rules, the absorption area, including installed system and replacement area, must not be subject to activity that is likely, in the opinion of the agent, to adversely affect the soil or the functioning of the system. This may include but is not limited to vehicular traffic, covering the area with asphalt or concrete, filling, cutting, or other soil modification.

(13) Operation and maintenance. Owners of onsite systems must operate and maintain their systems in compliance with all permit conditions and applicable requirements in this division and must not create a public health hazard or pollute public waters. Operation and maintenance requirements for systems under WPCF permits are established by the WPCF permits required in this division.

(14) Construction. An agent may limit the time period during which a system can be constructed to ensure that soil conditions, weather, groundwater, or other conditions do not adversely affect the reliability of the system.

(15) Permit requirements.

(a) A person may not cause or allow construction, alteration, or repair of a system or any part thereof without a WPCF permit issued under OAR 340-071-0162 or a construction-installation, alteration, or repair permit under OAR 340-071-0160, 340-071-0210, and 340-071-0215 except for emergency repairs authorized under OAR 340-071-0215(1) and (2).

(b) The following systems must be constructed and operated under a renewable WPCF permit issued pursuant to OAR 340-071-0162.

(A) Any system or combination of systems located on the same property or serving the same facility and having a total sewage flow design capacity greater than 2,500 gpd. Flows from single family residences or equivalent flows on separate systems incidental to the purpose of the large system or combination of systems (e.g., caretaker residence for a mobile home park) need not be included.

(B) A system of any size, if the septic tank effluent produced is greater than residential strength wastewater as defined in OAR 340-071-0100.

(C) Except as provided for in section (16)(d) of this rule, o~~O~~ther systems that are not described in this division and do not discharge to surface public waters or the ground surface.

(16) WPCF permits for existing facilities.

(a) The owner of an existing system required to have a WPCF permit under subsection (15)(b) of this rule is not required to obtain a WPCF permit until a system major repair or major alteration of a system, or facility expansion, is necessary.

(b) The permittee of an existing aerobic treatment unit, recirculating gravel filter, commercial sand filter, or alternative treatment technology system constructed or operating under a WPCF permit that is no longer required under section (15) of this rule may request the department to terminate the permit.

(A) The permittee must submit, on a form approved by the department:

(i) A copy of the service contract required in OAR 340-071-0290, 340-071-0302, or 340-071-0345; and

(ii) A written statement from a maintenance provider certifying that the system is not failing.

(B) The department will send a letter to the permittee to terminate a WPCF permit. The letter will be deemed a Certificate of Satisfactory Completion for the permitted system.

(c) The department may terminate WPCF permits for existing holding tanks for which permits are no longer required under section (15) of this rule. The department will send a letter to the permittee

to terminate the permit. The letter will be deemed a Certificate of Satisfactory Completion for the permitted system.

(d) Permittees of other existing systems or combination of systems constructed or operating under a WPCF permit may request the department terminate the permit if all of the following conditions are met:

(A) The system or combination of systems located on the same property or serving the same facility must have a total sewage flow design capacity of 2,500 gpd or less; and

(B) The system or combination of systems must not produce septic tank effluent greater than residential strength wastewater as defined in OAR 340-071-100; and

(C) The system or combination of systems must have been operating under a WPCF permit prior to July 1, 2007; and

(D) The absorption facility is described in this division and does not discharge to surface public waters or the ground surface; and

(E) The system or combination of systems must have been in continuous operation and compliance with the waste disposal limitations specified in the WPCF permit for at least the three (3) years prior to the date of termination request; and

(F) The permittee submits a copy of a service contract that meets the requirements of OAR 340-071-0302(6); and

(G) The permittee submits a written statement from a maintenance provider certifying that the system is not failing.

(H) Owners of and maintenance providers for these systems must operate and maintain the system in accordance with the requirements described for recirculating gravel filter systems in OAR 340-071-0302(4), (5), and (6). The department will send a letter to the permittee to terminate the WPCF permit. The letter will be deemed a Certificate of Satisfactory Completion for the permitted system. Conditions specified in the Certificate of Satisfactory Completion continue in force as long as the system is in use.

17) Annual permit fees and reports.

(a) Commercial sand filter, recirculating gravel filter, ~~and~~ alternative treatment technology systems and those systems described in section (16)(d) of this rule not under WPCF permits. Owners of commercial sand filter, recirculating gravel filter, and alternative treatment technology systems and those systems described in section (16)(d) of this rule not under WPCF permits must submit annual fees and reports as follows:

(A) Owners must pay the annual report evaluation fee in OAR 340-071-0140(3)(k)(B) by the date specified by the department for each year the system is in operation. A system is placed in operation when it first receives wastewater and remains in operation until the department receives notice the system has been decommissioned.

(B) Owners must submit written certification prepared by a maintenance provider on a department-approved form that:

(i) The system has been maintained in accordance with the requirements of the rules in this division during the reporting year and is operating in accordance with the agent-approved design specifications, or

(ii) The owner has applied for a repair permit under OAR 340-071-0215.

(C) Owners are not required to submit fees or reports under this subsection that a maintenance provider has submitted on behalf of the owner in accordance with OAR 340-071-0290(7)(b), 340-071-0302(6)(c)(E), or 340-071-0345(14)(c)(E).

(b) Owners of holding tanks not under WPCF permits. Owners of holding tanks not under WPCF permits must pay annual fees and reports as follows:

(A) Owners must pay the annual report evaluation fee in 340-071-0140(3)(k)(A) by the date specified by the department for each calendar year the tank is in operation.

(B) Owners must submit written certification on a department-approved form that the holding tank has been regularly inspected and pumped during the reporting year and that the year's service log for the holding tank is available for inspection by the agent.

(c) Fees for systems under WPCF permits. Permittees of onsite systems under WPCF permits must pay the annual compliance determination fee in OAR 340-071-0140(4)(e) by the date specified by the department for each year the system is in operation.

(18) Engineering plan review. Unless specifically exempted in this division, all plans and specifications for the construction, installation, or modification of onsite systems must be submitted to the agent for approval or denial. The design criteria and rules governing the plan review are as follows:

(a) The agent must review all plans and specifications for WPCF permits in accordance with OAR chapter 340, division 052.

(b) Plans and specifications for construction-installation permits for commercial sand filter, recirculating gravel filter, and advanced treatment technology systems with design capacities greater than 600 gpd must be signed by a person registered in accordance with ORS 672 or 700.

(19) Criteria and standards for design and construction. The criteria and standards for design and construction in this division and OAR chapter 340, division 073 apply to all onsite systems.

(a) For onsite systems subject to WPCF onsite permits, the department may allow variations of the criteria, standards, and technologies in this division and OAR chapter 340, division 073 based on adequate documentation of successful operation of the proposed technology or design. The system designer must demonstrate the performance of new processes, treatment systems, and technologies in accordance with OAR chapter 340, division 052.

(b) For systems not requiring WPCF permits, the department may authorize variances from the criteria, standards, and technologies in this division through the variance processes in OAR 340-071-0415 through OAR 340-071-0445.

(20) Manufacturer's specifications. All materials and equipment, including but not limited to tanks, pipe, fittings, solvents, pumps, controls, and valves, must be installed, constructed, operated, and maintained in accordance with manufacturer's specifications.

(21) Sewer and water lines. Effluent sewer and water line piping constructed of materials that are approved for use within a building, as defined by the 2000 Edition of the Oregon State Plumbing Specialty Code, may be run in the same trench. Effluent sewer pipe of material not approved for use in a building must not be run or laid in the same trench as water pipe unless both of the following conditions are met.

(a) The bottom of the water pipe at all points is at least 12 inches above the top of the sewer pipe.

(b) The water pipe is placed on a solid shelf excavated at one side of the common trench with a minimum clear horizontal distance of at least 12 inches from the sewer pipe.

(22) Septage management. A person may not dispose of wastewater, septage, or sewage-contaminated materials in any location or manner not authorized by the department.

(23) Groundwater levels. All groundwater levels must be predicted using conditions associated with saturation. In areas where conditions associated with saturation do not occur or are inconclusive, such as in soil with rapid or very rapid permeability, predictions of the high level of the water table must be based on past recorded observations of an agent. If such observations have not been made or are inconclusive, the application must be denied until observations can be made. Groundwater level observations must be made during the period of the year in which high groundwater normally occurs in an area. A properly installed nest of piezometers or other methods acceptable to the department must be used for making water table observations.

(24) A person may not submit information required by statute, rule, permit, or order that is false, inaccurate, or incomplete.

[ED. NOTE: Tables referenced are available from the agency.]

Stat. Auth.: ORS 454.625 & 468.020
Stats. Implemented: ORS 454.615, 454.655, 454.695, 468B.050, 468B.055 & 468B.080
Hist.: DEQ 10-1981, f. & ef. 3-20-81; DEQ 5-1982, f. & ef. 3-9-82; DEQ 8-1983, f. & ef. 5-25-83; DEQ 9-1984, f. & ef. 5-29-84; DEQ 27-1994, f. & cert. ef. 11-15-94; DEQ 12-1997, f. & cert. ef. 6-19-97; DEQ 8-1998, f. & cert. ef. 6-5-98; DEQ 16-1999, f. & cert. ef. 12-29-99; DEQ 5-2000(Temp), f. 2-24-00, cert. ef. 3-1-00 thru 8-27-00; DEQ 14-2000, f. & cert. ef. 8-24-00; DEQ 11-2004, f. 12-22-04, cert. ef. 3-1-05

Attachment B
Summary of Public Comment and Agency Response

Water Quality Permitting Fee Changes
Prepared by: Melissa Aerne **Date: June 4, 2007**

Comment period

The public comment period opened on February 1, 2007 and closed at 5:00 p.m. on March 2, 2007. DEQ held public hearings during the public comment period as follows:

Date	Location	Number of Attendees
February 15, 2007	Eugene	0
February 20, 2007	Medford	0
February 21, 2007	Bend	0
February 22. 2007	Pendleton	2
February 26, 2007	Portland	0

Organization of comments and responses

Two people attended the Pendleton hearing and did not provide oral or written comments.

DEQ did not receive any comments from individuals or organizations by the close of the comment period.

Attachment C

Presiding Officer's Report on Public Hearings

DEQ staff convened rulemaking hearings on the proposed NPDES and WPCF permitting fee changes and onsite septic rule changes at the following locations:

1) February 15, 2007 – Oregon DEQ, 1102 Lincoln St., Suite 210, Eugene, Oregon
2) February 20, 2007 – Community Justice Center, 1101 W. Main, Suite 101, Medford, Oregon
3) February 21, 2007 – State Building-Health and Human Services, 1300 N.W. Wall St., Suite 101, Bend, Oregon
4) February 22, 2007 – City Hall Community Room, 501 S.W. Emigrant Ave., Pendleton, Oregon
5) February 26, 2007 – Oregon DEQ, 2020 N.W. 4th Ave., Rm. A/B, Portland, Oregon

Two persons attended the public hearings held in Pendleton, as noted below. There was no public participation at any of the other four hearings. At the Pendleton meeting, an informal informational session began about 7:00 p.m.. DEQ staff provided an overview of the proposed fee and rule changes and answered questions unrelated to the proposed fee and rule changes.

The following people attended and provided testimony (as noted) at these hearings:

Hearing Location	Attending	Testified	Hearing Adjourned
Pendleton	Jayne Clarke	No	8:30 p.m.
	Terry Clarke	No	

Attachment D
State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Relationship to Federal Requirements

RULE CAPTION

This proposal increases permit fees by 3% and provides criteria for termination of septic permits.

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).

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

There are no applicable federal requirements.

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 (rulemaking) 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?

No.

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 (rulemaking) assist in establishing and maintaining a reasonable margin for accommodation of uncertainty and future growth?

No.

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

The proposed rulemaking does not impact the level of equity between sources.

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

Not applicable.

9. Does the proposed requirement (rulemaking) 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 (rulemaking)?

Not applicable.

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

No.

Attachment E

DEPARTMENT OF ENVIRONMENTAL QUALITY
Chapter 340
Proposed Rulemaking
STATEMENT OF NEED AND FISCAL AND ECONOMIC IMPACT

Rule Caption	This proposal increases permit fees by 3% and provides criteria for termination of septic permits.
Title of Proposed Rulemaking:	Water Quality Permit Fee Increase
Stat. Authority or other Legal Authority:	The Department has the statutory authority to address this issue under ORS 468.065.
Stat. Implemented:	These rules implement ORS 468.065, ORS 468B.035 and ORS 468B.051.
Need for the Rule(s)	Part A. This proposed permitting fee increase is based on a recommendation from the Blue Ribbon Committee (Committee), which was convened in 2002 to develop recommendations for improved service from Oregon's wastewater permitting program. The Committee included industry (representing both small and large businesses), environmental and local government representatives. The Committee made a variety of recommendations intended to improve water quality permitting and simplify DEQ's permit fee structure. As a result of these recommendations, DEQ is working to complete a series of guidance documents explaining DEQ policy and practice relating to permitting. These are available on the DEQ website and are promulgated internally at permit writer meetings. DEQ has also simplified the water quality permit fee structure by eliminating and consolidating fees and clarifying who belongs in what category. The Committee also recommended that DEQ be allowed to increase fees by up to 3% per year to help program funding keep pace with increased costs. As a result of the Committee's recommendation, in 2005 the legislature enacted Senate Bill 45 (codified in ORS 468B.051) which authorizes the Environmental Quality Commission (EQC) to increase permit fees on an annual basis. The amount of the annual increase may not exceed the anticipated increase in the cost of administering the permit program or 3%, whichever is lower. Generally, cost increases for benefits and salaries outpace inflation, but an annual 3% fee increase will help offset these costs. Estimated wastewater permitting costs for 2005-2007 are $13,143,619. Projected costs for 2007-2009, with the same staffing levels as at the end of fiscal year 2007, are $14,968,245. This represents a 13.9% increase from biennium to biennium, which is well over the 3% annual increase allowed by Senate Bill 45 (ORS 468B.051). Part B. This rule change is needed to provide criteria under which homeowners and small businesses with onsite septic systems may terminate their permits with DEQ. Such systems are more appropriately regulated under permits that can now be issued at the county level. This rule change would apply in all counties, regardless of who administers the program for the county.
Documents Relied Upon for Rulemaking	The cost projections contained in this fiscal impact statement are DEQ's estimated wastewater permitting costs for fiscal years 2005-2007 and 2007-2009. The number of sources affected by the proposed fee increase was obtained from DEQ's wastewater permits database.
Requests for Other Options	ORS 183.335(2)(b)(G) requests public comment on whether other options should be considered for achieving the rule's substantive goals while reducing negative economic impact of the rule on business.
Fiscal and Economic Impact, Statement of Cost Compliance	Part A. As a result of this rulemaking, fees for all permits except those for small onsite septic systems and suction dredgers (General Permit 700-PM) will increase by 3%. Small onsite septic systems are exempted from this increase because DEQ does not have adequate resources at this time to conduct outreach to these permit holders. Suction dredgers are exempted because fees for this permit are set in

	statute and can only be changed by the legislature. Part B. As a result of this rulemaking, some permit holders with permits for small onsite septic system will be able to terminate their permits and obtain county-administered permits instead.	
Overview	Part A. Senate Bill 45, which was passed by the legislature in 2005 and codified in ORS 468B.051, authorizes the EQC to increase permit fees on an annual basis. The amount of the annual increase may not exceed the anticipated increase in the cost of administering the permit program or 3%, whichever is lower. As a result, DEQ is now proposing a rulemaking to increase fees by 3%. The revenue projections in this fiscal impact statement are based on DEQ's revenue estimates for fiscal years 2005-2007 and 2007-2009. The proposal does not increase fees for DEQ's onsite permitting program, nor does it increase fees for permittees registered under the suction dredge general permit. This 3% fee increase will help ensure stable, ongoing funding that will allow for improved budget management by DEQ. The fact that the fee increase authorized by the legislature is for up to 3% annually also improves fee predictability for rate payers. Part B. There are approximately 730 sources in Oregon that have onsite septic systems covered issued by DEQ. These sources include large businesses and government agencies as well as homeowners and small businesses. Homeowners and small businesses are more appropriately regulated under permits that can now be issued at the county level. The proposed rule change is needed to provide criteria under which homeowners and small businesses with onsite septic systems may terminate their permits with DEQ. Less than 5% of the sources currently covered by DEQ-issued permits for onsite septic systems are expected to terminate their permits in response to this rulemaking.	
General public	Part A. Overall, this rulemaking is not expected to have an effect on the general public because the increased permitting costs are small when compared to the overall yearly operating costs of permit holders. DEQ assumes that any increase to the cost of goods and services that is potentially passed on to the general public would be negligible when compared to the same increased costs due to inflation. Part B. This rulemaking will allow qualified homeowners and businesses with permits to operate small onsite septic systems to terminate their permits and operate their systems under county permits.	
Small Business ***For this analysis, the department considers that a small business is a source that discharges up to one million gallons of wastewater per day.*** ***Data is unavailable to determine if each source subject to this rulemaking has less than 50 employees, which is referred to in ORS 183.310 as the definition of a small business.***	a) Estimated number and types of businesses impacted	Part A. For the purposes of this discussion, the Department considers a small business to be one that discharges up to one million gallons of wastewater per day and is covered by an individual permit, or that is covered by a general permit. The types of businesses/industries included in this definition include but are not limited to: food processors, mining operations, dairies, fish hatcheries, smelting/refining operations, timber processing, wood products manufacturing and retail operations. There are a total of 4077 sources in Oregon that are covered by either an individual industrial permit or by a general permit. Of these 4077 sources, 183 are industrial sources covered by individual permits, and 3894 are covered by General permits. All of these sources will be affected by the 3% fee increase. Part B. Fewer than 5% of the 730 sources currently covered by permits for onsite septic systems will be affected by this rulemaking. These sources will be able to terminate their permits and operate their systems under county permits instead of DEQ-issued permits.
	b) Additional reporting requirements	None.
	c) Additional equipment and administration requirements	None.
	d) Describe how businesses were involved in development	This fee increase is being implemented as a result of recommendations by the Blue Ribbon Committee, which included industry, environmenta

	of this rulemaking and local government representatives.
Large Business	Part A. For the purposes of this discussion, the Department considers a large business to be one that discharges over one million gallons of wastewater per day and is covered by an individual permit. There are a total of 22 sources that are large businesses in Oregon that will be affected by the 3% fee increase. Part B. No large businesses will be affected by this rulemaking.
Local Government	Part A. This rulemaking will increase fees by 3% for 359 local government agencies that hold municipal wastewater permits. It is expected that municipalities with pretreatment programs will pass on those fees to indirect dischargers that include both small and large businesses. DEQ does not expect this proposed fee increase to have a significant effect on local government operating budgets. Part B. This rulemaking will not affect local government.
State Agencies	
DEQ	Parts A and B. The proposed fee increase will increase annual revenue to the DEQ wastewater permitting program by about $116,000. The proposal to allow permit holders with small onsite septic systems to terminate their permits will decrease revenue by about $7500. The net result will be an increase of about $108,500.
Other agencies	Part A. The Oregon Department of Fish and Wildlife is covered by a general permit for the operation of fish hatcheries. The Oregon Department of Transportation is covered by a general permit that regulates stormwater discharges from construction sites. The proposed fee increase of 3% is not expected to have a significant effect on these agencies. Part B. This rulemaking will not affect other agencies.
Assumptions	Part A. It is assumed that the cost of obtaining and keeping a water quality permit is small compared to other operating costs for businesses, local governments and state agencies. Part B. This rulemaking will not result in increased costs for permit holders.
Housing Costs	Part A. 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. The annual cost of the stormwater permit that may be required for the construction of a house is currently $391. A 3% increase amounts to about $12/year, and this is negligible compared to the purchase price of a new home. Part B. This rulemaking will affect a small number of existing homeowners, but will not impact the cost of a new home.
Administrative Rule Advisory Committee	The Blue Ribbon Committee served as DEQ's advisory committee for this rulemaking. This Committee came up with the recommendation for an annual fee inflator that is the basis for this rulemaking, and has reviewed this fiscal impact statement.

Prepared by	Sonja Biorn-Hansen Printed name	Date
Approved by DEQ Budget Office	Printed name	Date

Attachment F

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Land Use Evaluation Statement

Rulemaking Proposal
for
Water Quality Permit Fee Increase

RULE CAPTION

This proposal increases permit fees by 3% and provides criteria for termination of septic permits.

1. **Explain the purpose of the proposed rules.**
   Part A. The purpose of the proposed rulemaking is to increase permit fees by 3%.
   Part B. The purpose of the proposed rulemaking is to create language under which qualified permit holders for small onsite septic systems can terminate their permits and operate their systems under more appropriate permits issued at the county level.

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 X No__

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

   The proposed rules affect Oregon's NPDES and WPCF permitting program (340-018-0030(d) Issuance of NPDES and WPCF Permits), which regulates waste water discharges from industrial and municipal sources.

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

   Yes X No____ (if no, explain):

   The proposed rules would be implemented through the Department's existing wastewater permitting program. An approved land use compatibility statement is required from local government before an NPDES or WPCF permit is issued.

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.

State of Oregon Department of Environmental Quality

Agenda Item F: Proposed Fee Increase and Onsite Septic Rule Changes

State of Oregon Department of Environmental Quality

Proposed 3% Fee Increase

- Continues implementation of the Blue Ribbon Committee's recommendations for improving the wastewater permitting program.
- Implements an annual fee increase mechanism approved by the 2005 Legislature. Fees may increase annually in an amount not to exceed 3%.
- Fee increase will generate an estimated $217,000 in revenue during the 2007-2009 biennium to help address cost increases.

State of Oregon Department of Environmental Quality

Who Will Be Affected?

- Municipal/Domestic permit holders
- Industrial permit holders
- General permit holders

Not affected:

- Suction dredge permit holders
- Water Pollution Control Facility (WPCF)-Onsite septic permit holders

Water Quality Program

State of Oregon Department of Environmental Quality

Proposed Onsite Septic Permit Rule Changes

Construction-Installation Permits vs.
Water Pollution Control Facilities (WPCF) Permits

- Construction-Installation
  - Residential and small commercial facilities
- WPCF
  - Large, complex commercial facilities

Proposed Onsite Septic Permit Rule Changes

March 2005 rule changes:

- Incorporated many innovative septic systems
- NSF, International certification
- Service Contract
- Annual reporting

Proposed Onsite Septic Permit Rule Changes

June 2007 proposed rule changes:

- Exemption for small, existing systems without NSF, International certification
- Proven track record
- Service Contract
- Annual Reporting

Water Quality Program

DEQ

State of Oregon
Department of
Environmental
Quality

Proposed Onsite Septic Permit Rule Changes

Advantages

- Focus resources on maintenance
- Less burdensome monitoring requirements
- Lower annual reporting fee
- No renewal fee
- Local contacts in each county

State of Oregon
Department of Environmental Quality Memorandum

Date: June 4, 2007

To: Environmental Quality Commission

From: Stephanie Hallock, Director S. Hallock

Subject: Agenda Item G, Rule Adoption: Redesignation of the Salem-Keizer Carbon Monoxide Nonattainment Area;
June 22, 2007 EQC Meeting

Why this is Important

Carbon Monoxide (CO) is a colorless, odorless, poisonous gas produced by incomplete combustion. The Salem-Keizer area easily meets the National Ambient Air Quality Standards (NAAQS) for CO and has done so for over twenty years. However, the area still carries its initial nonattainment area designation and is subject to requirements meant for areas with high CO levels. This CO Maintenance Plan demonstrates to the public that CO levels have been and are expected to remain well within public health standards. The plan also allows the Environmental Protection Agency (EPA) to lift the nonattainment designation for the Salem area and redesignate the area to attainment for CO. Under Oregon law, the Salem-Keizer area would become a CO maintenance area. Redesignating the area to attainment will also change the emission control requirements for new and expanding industry away from the most stringent controls possible to requirements more appropriate for areas with good air quality. Redesignation will also simplify local transportation planning requirements for evaluating air quality impacts of new transportation projects.

Department Recommendation

The Department of Environmental Quality (DEQ) recommends that the Environmental Quality Commission (EQC) adopt the Salem-Keizer CO Maintenance Plan as a revision to the State Implementation Plan as presented in Attachment A, and request that the Environmental Protection Agency (EPA) redesignate the area to attainment for carbon monoxide.

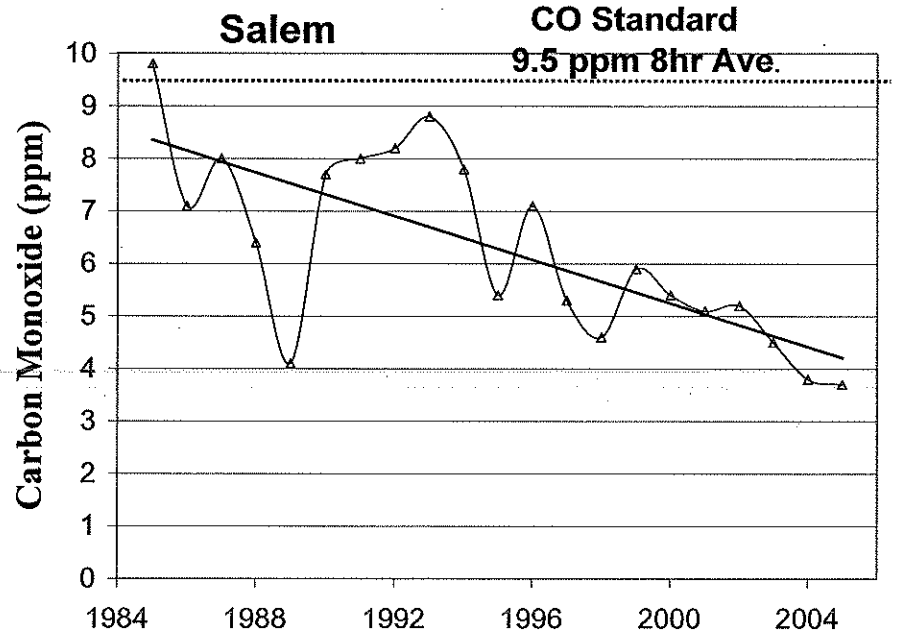
Background and Need for Rulemaking

In the 1970s the Salem-Keizer area was tested for compliance with the newly established CO standard of 9 parts per million (ppm). At that time, measured CO concentrations in Salem violated the air quality standard and the area was officially designated by the EPA as "nonattainment" for CO.

Historically, elevated CO levels were seen in the winter months and caused by automobile traffic at congested intersections. Other sources of CO, like industrial emissions and wintertime wood burning contribute a small amount to overall background CO, but the primary driver of CO levels is transportation. The highest

CO concentrations in urban areas occur during winter, when cooler temperatures lead to less efficient combustion and when CO emissions are trapped near the ground by atmospheric inversions.

The CO trends graph shows how CO levels have dramatically decreased as cars have become much cleaner over the past twenty years. Because the public health risk from CO has been significantly reduced in the Salem-Keizer area, DEQ can now complete the administrative process to redesignate Salem from a CO nonattainment area to a state CO maintenance area and federal attainment area.



DEQ's initial attainment analysis in 1979 showed that EPA's progressively more stringent federal tailpipe standards for cars and trucks would reduce CO levels and bring the Salem area into compliance. Because the Salem area was designated nonattainment, the Clean Air Act required that new and expanding major industrial sources install the most stringent level of emission control technology, known as Lowest Achievable Emission Rate (LAER). No additional CO reduction strategies were needed.

As CO emissions from cars and trucks were reduced over time, ambient CO concentrations improved. In 1987 the Salem-Keizer area achieved the NAAQS for CO and since then vehicle emissions have continued to decrease. CO concentrations are now approximately half of what the NAAQS requires and CO

levels are expected to stay low as cleaner new vehicles make up an increasing proportion of the fleet.

Salem-Keizer's low CO concentrations allow the area to be redesignated to attainment using a "limited" air quality maintenance plan. Under this policy EPA considers areas with CO concentrations lower than 85% of the CO standard to have a significant safety margin, even with expected growth. Such areas are unlikely to violate the 9 ppm CO limit during the ten-year maintenance plan period.

The limited maintenance plan approach removes the need to forecast future CO emissions and to develop a specific cap (Motor Vehicle Emissions Budget) for total emissions from the regional transportation system. Rather, future CO emissions from areas eligible to use a limited maintenance plan are "assumed to comply" with transportation conformity rule requirements. This eliminates an administrative obligation that provides little or no benefit. This topic is discussed further on page four.

Effect of Rule

The chief cause of high CO levels and the Salem area's nonattainment status has been CO emission from cars and trucks. However, the Clean Air Act requires nonattainment areas to apply two programs in addition to motor vehicle emission standards to control CO concentrations. These include stricter requirements for new and expanding major industry and requirements that link transportation planning and air quality under a program called Transportation Conformity. Redesignating Salem to attainment means that these programs can be modified to reflect the fact that Salem's CO levels are, and will remain, well within air quality standards.

Requirements for New and Expanding Major Industry: When the Salem area was violating CO standards in the 1970's, the Clean Air Act required new and expanding major industrial sources to install the very highest level of pollution control equipment--regardless of cost. That level of control is Lowest Achievable Emission Rate (LAER) technology. Under nonattainment, new and expanding industries are also required to "offset" any increased CO emissions by decreasing an equal amount of CO from other sources in the area.

Currently, CO levels are half the standard and are expected to stay low because of much cleaner cars. Therefore, the LAER-level controls that were initially required by the Clean Air Act are no longer needed. Following redesignation to attainment, new and expanding major industry would be required to install Best Available

Control Technology (BACT). BACT allows substantial local economic, energy, environmental or other costs to be considered in determining the appropriate level of industrial emission controls and is the level of control technology that is usually required in former nonattainment areas that have met air quality standards. BACT provides a high level of CO control and often results in the identical control technology as would be required by LAER.

Also as a result of redesignation to attainment, new and expanding major industry would no longer need to offset any CO emission increases with an equivalent amount of CO emission reductions from the area. Such emission reductions are not available in the Salem area causing a virtual prohibition of new and expanding major industry. The revised industrial source requirements resulting from redesignation would align the requirements in Salem-Keizer with the requirements that currently exist in the Portland area. Redesignation will not affect requirements for existing industrial facilities.

Transportation Conformity: The local transportation planning organization--Salem-Keizer Area Transportation Study (SKATS)--will also be affected by the proposed redesignation. Under the proposed maintenance plan, the Salem-Keizer area will continue to be subject to federal transportation conformity rules that link air quality and transportation planning. However, SKATS will no longer need to perform a time-consuming regional air quality emissions analysis each time a new transportation plan or transportation program is approved. Such analyses are conducted about every other year at an estimated cost of $30,000. In areas with Salem's low CO concentrations, such regional analyses are very unlikely to identify any air quality problems and are not required for areas with a limited CO maintenance plan. However, individual transportation projects will still be subject to localized "hot spot" air quality analyses to demonstrate those projects will not cause CO problems.

Commission Authority

The Commission has authority to take this action under ORS 468.020.

Stakeholder Involvement

This proposal was developed in consultation with EPA, the Salem-Keizer Area Transportation Study (SKATS) and key stakeholders. DEQ did not convene an advisory committee because no new CO reduction measures are needed for the Salem area. CO levels in Salem have been well below health standards for twenty years.

Public Comment

A public comment period extended from March 15 through April 20, 2007. DEQ hosted an informal open house on March 26th to provide the public with information on the CO plan and an opportunity to discuss air quality issues. DEQ

held a formal public hearing April 16th to gather public comment on the proposed CO maintenance plan. Several individuals attended the open house, but no one attended the public hearing. The only comments submitted on this rulemaking were those offered by EPA Region 10. A summary of those comments and DEQ's response are provided in Attachment B.

Key Issues

The Salem CO Limited Maintenance Plan demonstrates that the area is well within the health-based CO standard and has been so for two decades. Redesignation to attainment will result in appropriate regulatory changes for large industry and transportation planning agencies. The outreach efforts to potentially interested parties combined with a lack of comment indicates there is no opposition to this proposal.

Next Steps

If the EQC adopts the proposed changes, DEQ will file rule changes with the Oregon Secretary of State and submit the maintenance plan and redesignation request to EPA as a revision of the State Implementation Plan. EPA is expected to review the submission well within the eighteen months allowed under the Clean Air Act. Once EPA's approval is published in the Federal Register the provisions described above will take effect. The modified requirements for new and expanding industry will be implemented through the normal air quality permitting process. Changes in transportation planning requirements will represent a reduction in planning duties performed by SKATS.

Attachments

A. Proposed Rule Revisions
   1. Proposed Salem-Keizer CO Maintenance Plan
   2. Proposed Rule Revisions
B. Summary of Public Comments and Agency Responses
C. Presiding Officer's Report on Public Hearing
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
3. Written Comment Received
4. Memo from EPA's Joseph Paisie dated October 6, 1995
5. Salem-Keizer Carbon Monoxide Nonattainment Area Maintenance Plan Emissions Inventory

Approved:

Section:

Division:

Report Prepared By: Dave Nordberg

Phone: (503) 229-5519

Salem-Keizer Area Carbon Monoxide Limited Maintenance Plan

State Implementation Plan

Volume 2

Section 4.57

June 4, 2007

Prepared by:

Oregon Department of Environmental Quality
Air Quality Division
811 SW 6th Avenue
Portland, OR 97204-1390

Salem-Keizer Area Carbon Monoxide Limited Maintenance Plan

Oregon State Implementation Plan
Volume 2, Section 4.57

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SALEM-KEIZER AREA CARBON MONOXIDE LIMITED MAINTENANCE PLAN

OREGON STATE IMPLEMENTATION PLAN
VOLUME 2, SECTION 4.57:

4.57.0 Acknowledgement and Summary

Oregon Department of Environmental Quality (DEQ) acknowledges the contributions made in developing this air quality CO maintenance plan:

Oregon Department of Environmental Quality

Principal Author:

Dave Nordberg	Air Quality Planner

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David Collier	Air Quality Planning Manager
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Svetlana Lazarev	Air Quality Technical Services
Karen White-Fallon	Western Region Air Quality
Jennifer Boudin	Communications & Outreach
Anthony Barnack	Air Quality Planning

Salem Keizer Area Transportation Study

Mike Jaffe	Transportation Manager

4.57.1 Introduction

4.57.1.0 Purpose of the Limited Maintenance Plan

This air quality maintenance plan was developed to demonstrate that the Salem-Keizer Area Transportation Study, as defined in OAR 340-204-0010 (the Salem-Keizer area), has met the National Ambient Air Quality Standard (NAAQS) for carbon monoxide (CO) and to allow the area to be officially redesignated for CO. The plan is written as a "limited" maintenance plan and will ensure that the area continues to comply with CO standard in the future. This document is developed in accordance with the federal Clean Air Act and the policies of the U.S. Environmental Protection Agency (EPA).

4.57.1.1 History of CO Problem in the Salem-Keizer Area

In 1974, DEQ began monitoring CO concentrations in the Salem-Keizer area and results indicated the region failed to meet the 8-hour NAAQS of 9 parts per million (ppm). On March 3, 1978, EPA officially designated the area as "nonattainment" for that pollutant. The area was further identified as "not-classified" as to the degree of nonattainment due to insufficient data. On June 29, 1979, the Oregon Department of Environmental Quality (DEQ) submitted a CO Control Strategy to EPA as required by the 1977 Clean Air Act. That plan relied primarily on the Federal Motor Vehicle Emission Control Program to bring the area into compliance. EPA approved DEQ's attainment plan on June 24, 1980.

CO concentrations improved and the Salem-Keizer area achieved the NAAQS for CO in 1987 based on monitoring data from the previous two years. Since then, vehicle emission standards have become progressively more restrictive and CO emissions from motor vehicles declined steadily. Because the highest CO concentrations in the Salem area are caused by vehicle emissions, the tighter emission standards caused the area's CO concentrations to continue to decline. CO concentrations are now approximately half of what the NAQQS for CO requires and CO levels are expected to stay low as cleaner new vehicles make up an increasing proportion of the fleet.

4.57.1.2 National Ambient Air Quality Standards for Carbon Monoxide

CO is a colorless, odorless gas that displaces oxygen in the body's red blood cells through normal respiration. The major human-caused source of annual CO is incomplete combustion of carbon-based fuels primarily through the use of gasoline-powered motor vehicles. Other important sources of CO emissions are woodstoves, fireplaces and industrial boilers. Most serious CO concentrations occur during winter in urban areas, when cooler temperatures promote incomplete combustion and when CO emissions are trapped near the ground by atmospheric inversions.

The Clean Air Act requires EPA to establish National Ambient Air Quality Standards (NAAQS) for six common air pollutants including CO. EPA set the NAAQS for CO at 35 parts per million (ppm) averaged over a 1-hour period and 9 ppm averaged over an 8-hour period. Like most areas of the country that failed to meet the CO NAAQS, the Salem-Keizer area did not meet the 8-hour portion of the standard.

The Code of Federal Regulations (40 CFR part 50.8) defines how ambient air quality monitoring data are to be compared to the applicable NAAQS. It states that monitoring data should be expressed to one decimal place, and that standards defined in parts per million should be compared "in terms of integers with fractional parts of 0.5 or greater rounding." EPA interprets this rule to mean that any 8-hour CO concentration less than 9.5 ppm meets the standard. Any CO value monitored at or above 9.5 ppm is an exceedance. Two exceedances in one calendar year constitute an air quality violation. Therefore, it is the second-highest CO concentration that determines if an area attains the air quality standard.

Demonstrating attainment of the standard requires monitoring ambient air quality using approved instruments and procedures and verifying the results with a formal quality assurance/quality control program. Air quality measurements taken in the Salem-Keizer area show that the area has not violated the CO standard since 1985 and easily satisfies EPA's requirements as shown in Section 4.57.2.

4.57.1.3 Maintenance Plan Criteria/Organization of Document

Section 175A and related provisions of the Clean Air Act establish the criteria that must be satisfied for an air quality maintenance plan update:

- Attainment of NAAQS for CO
- Full approval of the State Implementation Plan (SIP) under section 110(k)*
- Demonstration that air quality improvement is due to permanent and enforceable emission reductions.
- Full approval of CO maintenance plan under section 175A
- Fulfillment of all applicable Section 110 requirements*

The following sections summarize these criteria and refer to additional discussion of each topic elsewhere in this document.

*Section 110 describes general provisions needed for a SIP. Section 110(k) addresses Clean Air Act requirements applying to the redesignation of a specific area to attainment.

Attainment Verification

A maintenance area must continue to meet the applicable NAAQS. Attainment of the NAAQS for CO in the Salem-Keizer area is discussed in Section 4.57.2, "Attainment Demonstration."

SIP Approval

EPA must have fully approved the applicable SIP for the area pursuant to Section 110(k) of the CAA. Compliance with these requirements are addressed in Section 4.57.4 of this plan.

Permanent and Enforceable Improvements in Air Quality

Permanent and enforceable reductions in emissions and improved ambient CO concentrations in the Salem-Keizer area are discussed in section 4.57.2.

Maintenance Plan Elements

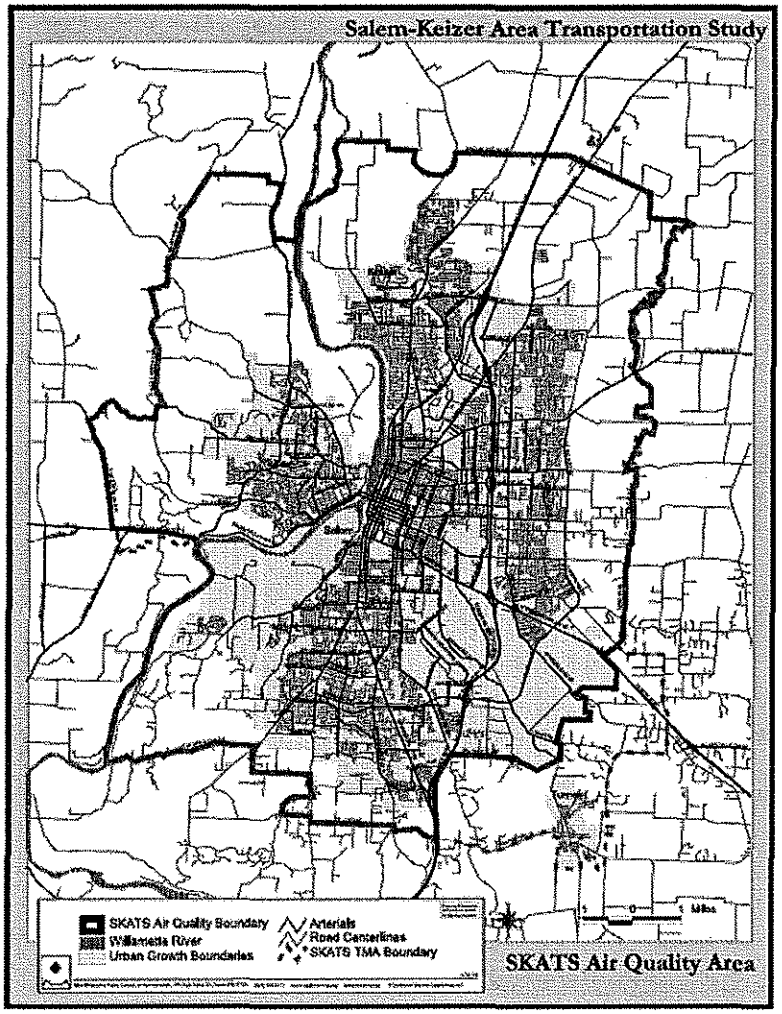
Section 175A of the Clean Air Act requires a request for redesignation to be supported by a plan that will provide for maintaining the national ambient air quality standard ten years into the future. The maintenance plan must be submitted to EPA as a revision to the State Implementation Plan and includes the following required elements:

Section 4.57.2: Attainment Emissions Inventory
Section 4.57.3: Maintenance Demonstration
Section 4.57.3: Contingency Plan
Section 4.57.4: Administrative Requirements

4.57.1.4 Salem-Keizer Air Quality Control Area

The CO air quality control area regulated by this plan is the Salem-Keizer Area Transportation Study area as it existed before the addition of the Turner region at the Southeast. The area is shown below:

Figure 1



4.57.2 ATTAINMENT DEMONSTRATION

4.57.2.1 Ambient Air Quality Monitoring Program

DEQ has been monitoring ambient CO concentrations in the Salem-Keizer area since 1974. Monitors were located at "hot spot" areas with the highest potential to exceed the standard. Monitoring locations were identified using EPA's protocol and the use of periodic sampling (sampling surveys or bag studies) at prospective locations. During the CO season, monitors operated continuously with 1 hour and 8 hour average CO concentrations being derived electronically via data loggers and integrators. After the results were reviewed for quality assurance, the measurements were entered into the Aerometric Information Retrieval System (AIRS) to provide EPA with DEQ's air quality data.

The Salem-Keizer area has had three CO monitoring sites. The first was at the Valley Answering Service at 498 SE Church St. NE in Salem. Monitoring was shifted to 690 Lancaster Ave. NE Salem after a sampling survey in 1988/1989 indicated that location was likely to have the highest CO levels. When DEQ's monitoring site lease at that location was terminated in 1992, the monitor was moved North to the Market and Lancaster site (1685 Lancaster Ave. NE Salem). Air sampling continued at that location with generally decreasing values until sampling was suspended in 2006.

DEQ ended CO monitoring in the Salem-Keizer area because both local Salem CO levels and national trends for CO concentrations confirm that CO levels across the county will remain significantly below federal health standards into the future. DEQ will continue to track the potential increase of CO by inventorying CO emissions every three years as part of the National Emission Inventory process. Should emissions increase significantly in the future, DEQ will resume CO monitoring. In addition, DEQ will track CO measurements in other areas of the state (Portland, Eugene and Medford) where monitors remain. If ambient CO levels rise significantly, DEQ will resume monitoring in Salem-Keizer as specified in section 4.57.3.

4.57.2.2 Summary of Ambient CO Data

Each recording of a CO concentration higher than the NAAQS is an exceedance. Two exceedances at a given monitor in a single year constitute a violation. Therefore, it is the second highest reading in a given year that determines if an area complies with the CO standard.

Monitoring in Salem-Keizer demonstrates that the area last violated the CO NAAQS in 1985. The only exceedance of the 8-hour CO NAAQS since then occurred November 11, 1993 when a reading of 9.7 ppm was registered at the Market and Lancaster site.

The highest and second highest CO concentrations at the Salem-Keizer monitor over the past two decades are shown below. Again, the National Ambient Air Quality Standards for CO are 35 ppm (maximum 1–hour average), and 9 ppm (maximum 8-hour average).

Table 1 Highest CO Concentrations (ppm): 1986 to 2005

STATION LOCATION AND NUMBER	YEAR	1-HOUR AVERAGES MAXIMUM	2ND HIGH	Number of Days Over >9ppm	8-HOUR AVERAGES MAXIMUM (date)	2ND HIGHEST (date)
Salem						
Valley Answering Service	1986	18.1	16.6	0	7.5 (12/28)	7.1 (10/31)
498 Church St. NE	1987	14.0	13.8	0	8.5 (12/30)	8.0 (02/06)
	1988	11.6	11.5	0	7.1 (02/27)	6.4 (12/17)
	1989*	10.5	8.8	0	4.6 (01/20)	4.1 (01/28)
Lancaster Ave.	1990*	12.8	11.6	0	7.8 (12/15)	7.7 (10/26)
690 Lancaster NE	1991	13.9	12.5	0	9.8 (01/05)	8.0 (12/13)
	1992	14.9	12.4	0	8.6 (02/04)	8.2 (02/06)
Market & Lancaster (SML)	1993	14.8	13.2	1	9.7 (11/11)	8.8 (12/28)
DEQ # 10131 EPA # 41040039	1994	10.5	10.3	0	9.0 (02/06)	7.8 (02/03)
	1995	10.7	9.8	0	6.2 (11/03)	5.4 (02/03)
	1996	10.5	9.6	0	7.8 (02/15)	7.1 (11/01)
	1997	8.2	8.1	0	6.2 (11/02)	5.3 (01/15)
	1998	7.9	7.9	0	4.7 (10/26)	4.6 (10/05)
	1999	7.7	7.7	0	5.9 (01/05)	5.9 (12/23)
	2000	8.5	8.4	0	5.5 (11/16)	5.4 (01/18)
	2001	7.5	7.2	0	6.0 (11/09)	5.1 (11/10)
	2002	7.6	7.3	0	5.6 (11/26)	5.2 (11/03)
	2003	7.1	6.9	0	5.2 (01/07)	4.9 (01/07)
	2004	5.6	5.4	0	4.2 (11/06)	3.8 (11/05)
	2005	7.5	6.1	0	4.9 (11/06)	3.7 (11/23)

*Winter data only

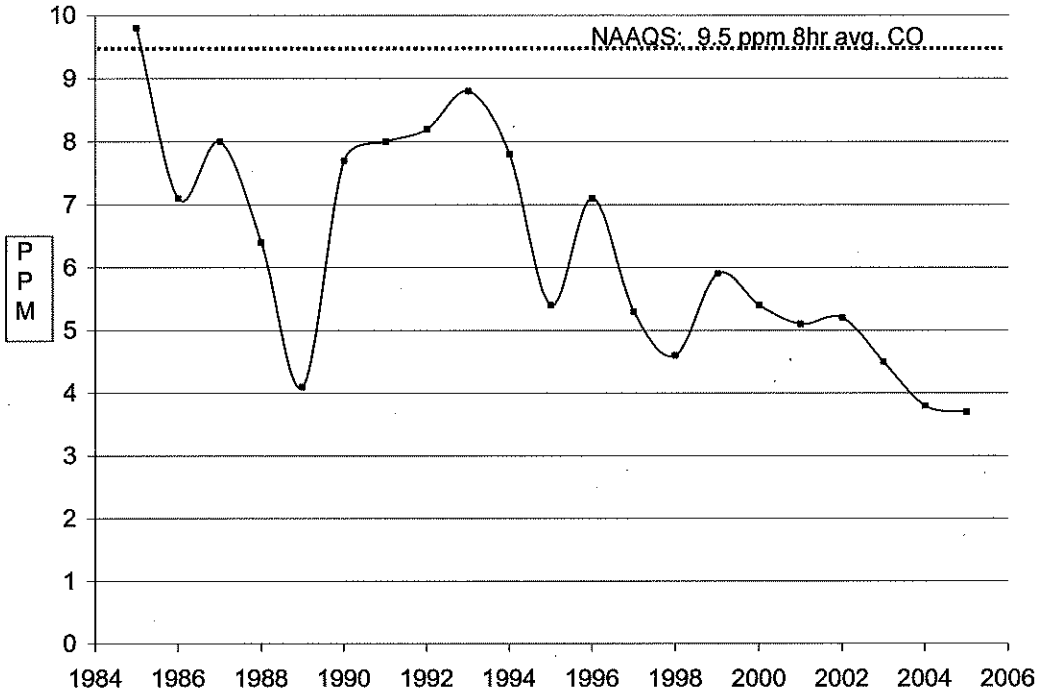
The five highest 8 hour average CO concentrations for the last five years are shown below:

Table 2 Five Highest 8-Hour CO Concentrations (ppm):

Market & Lancaster (SML)	
11/09/2001	6.0
11/26/2002	5.6
01/07/2003	5.2
11/03/2002	5.2
11/10/2001	5.1

A graph of the second highest 8-hour CO averages at the Salem-Keizer monitor is shown below:

Figure 2: Salem Area 2nd Highest CO Average: 1986 to 2005



4.57.2.3 Permanent and Enforceable Improvement in Air Quality

Permanent Emission Reductions

Control measures used to attain the CO National Ambient Air Quality Standard were:

- Federal Motor Vehicle Emissions Control Program (establishing emission standards for new motor vehicles).
- Major New Source Review with Best Available Control Technology (BACT).

It is noted the Salem-Keizer area attainment plan relied on only these federal control measures (45 FR 42275).

Representative Baseline Period

As a condition of redesignation, EPA requires that air quality improvements not be the result of temporary factors such as slow economic periods or unusually favorable meteorology. For this reason, DEQ cites the CO monitoring conducted over the previous 20 years to demonstrate that Salem-Keizer is clearly well below the allowable standard, and these conditions are expected to continue.

DEQ also conducted the emissions inventory supporting this maintenance plan for the year with the highest second-high CO measurements in the last ten-year period. That

second-high reading occurred in 1999 at an 8-hour average CO concentration of 5.9 ppm. This measurement also serves as the CO "design value" for the Salem-Keizer area. Selection of 1999 as the reference year provides further assurance that the emissions considered in this plan do not represent an unrealistically optimistic period.

The use of 1999 as the baseline Emission Inventory year is supported by an emission factor analysis of on-road motor vehicles. As mentioned earlier, the highest CO concentrations in the Salem-Keizer area are caused by on-road motor vehicles in areas of congested traffic. While congestion has arguably gotten worse in recent decades, the CO emission rate of an average on-road vehicle has improved dramatically. The improvement in CO emission rates is credited for most of the overall reduction in CO concentrations throughout the nation.

The reduction of motor vehicle CO emission rates will continue well into the future. DEQ calculated past and future "composite" CO emission factors (representing the average of all on-road vehicles) using EPA's Mobile 6.2 Emission Factor model. The results clearly show that fleet-average CO emission rates will continue to decline well below the 1999 inventory year.

Table 3 Fleet-Average CO Emission Factors for On-Road Motor Vehicles*

1999	2002	2005	2008	2011	2014	2017
32.8	28.5	22.0	17.8	15.2	13.5	12.4

*Emission Factors are expressed as grams of CO per mile for an average winter day. Factors were generated with EPA's Mobile 6.2 computer model using local temperature and fuel characteristics together with national-average fleet data.

The strong decline in emission rates supports the use of 1999 as the emission inventory year. The higher emission factors of 1999 make it as good as--or more conservative than—the use of a more recent emissions year.

4.57.2.4 Demonstration That DEQ's CO Network May Reasonably Be Considered Representative Of Worst Case CO Concentrations

This section presents evidence that the locations of the DEQ monitors for CO represent "worst case" or peak level concentrations. Specific elements include:

- wide ranging field sampling conducted by DEQ to identify areas with high peak CO levels,
- screening techniques used to identify intersections with apparent potential for high CO concentrations, and
- historical field studies showing that the DEQ CO network tends to record higher CO concentrations than screened intersections.

4.57.2.5 Comprehensive CO Field Studies

DEQ has repeatedly tried to identify localized areas that experience the highest peak CO concentrations. It conducted studies that included monitoring at several dozen locations during the winters of 1984, 1988-89, and 1994-95. The 1984 study found that the current monitor at the Valley Answering Service was not well located for observing the maximum 8-hour average CO concentrations. The subsequent study in 1988-89 was designed to estimate the best location for a continuous CO monitor in the Salem-Keizer area. That effort suggested that the areas of the highest potential CO concentrations were at major traffic corridors rather than the central business district. The results of this study caused DEQ to relocate the Salem-Keizer monitor in 1990 to the heavily traveled Lancaster Avenue.

In the winter of 1994-95 DEQ conducted an additional sampling survey to further investigate the locations of the highest CO concentrations in the Salem area. Unfortunately, the study period consisted of unusually mild weather, and few conclusions could be drawn. However, it was noted that while the monitor in the central business district showed some high CO values, it was also shown to not be a site of maximum CO concentrations under worst case conditions.

These studies indicate that the Salem-Keizer CO site network was reasonably representative of worst case CO concentrations.

4.57.2.6 Conclusions Regarding Demonstration of Attainment

Ambient air monitoring results demonstrate that CO concentrations in the Salem-Keizer have decreased dramatically and are well within the NAAQS. That trend reflects a national pattern of newer vehicles producing considerably reduced amounts of CO. The extended length of time that Salem-Keizer has already been in attainment clearly demonstrates that the area's low CO concentrations are not the result of short term economic slow downs or unusual meteorological conditions.

4.57.3 MAINTENANCE PLAN

Section 175A of the Clean Air Act requires a state to submit a maintenance plan for EPA's approval as a condition for redesignation. For the Salem-Keizer area the maintenance plan uses the limited maintenance plan approach allowed under EPA policy. This maintenance plan applies to the 10-year period November 1, 2007 through November 1, 2017.

4.57.3.1 Limited Maintenance Plan Requirements

EPA policy allows CO "nonclassifiable" areas with CO levels meeting certain requirements to use streamlined requirements of a "limited" maintenance plan for redesignation. These requirements are specified in a memo from EPA's Joseph Paisie dated October 6, 1995 which is included at Appendix D11-1 to this plan. The limited maintenance plan requirements may be used if an area's design value is no higher than 7.65 ppm CO (85% or less than the CO standard allows) in recent years. With a design value of 66% of the CO standard in 1999, the Salem-Keizer area is clearly within the scope of EPA's policy and the limited maintenance plan provisions are applied herein.

4.57.3.2 Attainment Inventory

As part of the Salem-Keizer Limited CO Maintenance Plan update, DEQ developed an attainment emission inventory for the year 1999. The CO emission inventory reflects detailed estimates of CO emissions from all sources on a typical winter day. Emissions are grouped in four major categories: Industrial (Point) Sources, On-Road Mobile Sources, Non-Road Mobile Sources, and Area Sources as described below:

Industrial (Point) Sources

This group consists of stationary industrial sources that emit more than 100 tons per year of CO within the SKATS boundary or within a 25 mile radius of that boundary. Industrial sources that emit less than 100 tons per year CO are not included in this category.

Area Sources

Area sources consist of CO emissions from a wide variety activities distributed over a large area. In Salem-Keizer, the largest area sources of wintertime CO are woodstoves, fireplaces and residential burning of household waste.

On-Road Mobile Sources

On-road mobile sources of emissions are essentially emissions from vehicles licensed to operate on highways. They include cars, trucks, motorcycles, buses, vans and heavy duty vehicles.

Non-Road Sources

Non-road sources of CO emissions are those produced by motorized vehicles that are not typically operated on highways. These include commercial, industrial and construction equipment as well as lawn and garden equipment.

The inventory is used to establish a relationship between the type and amount of CO emissions in a given area and the resulting CO concentrations those emissions produce. The 1999 baseline year was chosen because that year reflects the highest ambient CO concentrations in Salem-Keizer's recent history. 1999 also represents a period when average CO emission rates of on-road motor vehicles were significantly higher than they are now or will be in the future as is demonstrated in section 4.57.2.3. As concluded in that section the 1999 emissions inventory year is as good as--or more conservative than--a more recent year for establishing baseline emissions.

In accordance with EPA guidance, 1999 industrial source emissions were based on *actual* industrial emissions rather than *permitted* (allowable) emission levels. On-road motor vehicle emissions were calculated using EPA's Mobile 6.2 emissions factor model in a link-based computer analysis using SKATS' EMME2 travel demand model. Details are provided in the Salem-Keizer Carbon Monoxide Nonattainment Area Maintenance Plan Emissions Inventory, Appendix D 11-2, which is summarized by Table 3 below:

Table 4 1999 Annual and Seasonal CO Emissions

		CO Emissions	
Area / County	Source Type	Annual (tons/year)	Seasonal Day (lbs/day)
SKATS CO NAA			
	Stationary Point *	10,293	57,168
	Stationary Area	25,840	239,142
	Mobile Non-Road	16,067	19,820
	Mobile On-Road	36,025	197,400
	Total All Sources	88,225	513,530

* includes additional industrial sources within 25 miles of the Salem-Keizer area

As mentioned above, CO is primarily the result of incomplete combustion. Because combustion efficiency decreases at lower temperatures and because the sources of combustion change throughout the year, EPA requires that CO emissions be tallied during two different periods. The first period represents total annual emissions and the second represents average daily emissions per winter day. Categorizing mobile and stationary sources according to these different periods reveals how CO emissions vary over space and time in the affected area.

The winter season receives additional scrutiny because that is traditionally when low temperatures produced the highest CO emissions and ambient concentrations. Today however, the total seasonal variation is much less pronounced. Overall, CO Seasonal

Day emissions in 1999 were estimated to be 513,530 lbs. CO/day. That amount is only slightly higher than an annual daily average of 483,424 lbs. CO/day.
While emissions from Stationary Point sources and Mobile On-Road sources are relatively constant during the year, Stationary Area source emissions increase during cold weather and Mobile Non-Road emissions drop sharply. That is because Area Sources such as woodstoves and fireplaces are used primarily during winter and Mobile Non-Road emissions come from construction, lawn, and garden equipment which are mostly used during warm weather.

The emissions inventories reveal that the highest wintertime emissions are caused by woodstoves and fireplaces, however those sources of CO are distributed widely over the Salem-Keizer area at locations that do not move. Their emissions essentially contribute to a diffuse low-level background CO concentration.

In comparison, Mobile On-Road emissions come from the only sources that congregate in significant amounts. That occurs when cars and trucks are operated close together at areas of traffic congestion. While vehicle emission rates have declined steadily over the preceding decades, the tendency of Mobile On-Road sources to assemble spatially still makes this group the most likely to produce the highest CO concentrations.

4.57.3.3 Maintenance Demonstration

Given the CO levels that an area must have to qualify for a limited maintenance plan, EPA does not require limited maintenance plans to include a specific maintenance demonstration. There is no requirement to project emissions over the future ten-year period covered by the maintenance plan. EPA believes that for areas beginning the maintenance period at less than 85% of the 9 ppm CO limit, federal control measures provided by New Source Review for major industry and federal motor vehicle emission controls provide adequate assurance that the area will continue to maintain the standard over the initial 10-year maintenance period.

4.57.3.4 Motor Vehicle Emissions Budgets

EPA's guidance for a Carbon Monoxide Limited Maintenance Plan states that:

"When EPA approves a limited maintenance plan, EPA is concluding that an emissions budget may be treated as essentially not constraining for the length of the maintenance plan period because it is unreasonable to expect that such an area will experience so much growth in that period that a violation of the CO NAAQS would result."

Future Regional Transportation Plans and Transportation Improvement Programs which are subject to "transportation conformity" rules will be "assumed to comply" with the motor vehicle emission budget test. As a result, no CO Motor Vehicle Emission Budgets are required and none were developed.

4.57.3.5 Emission Reduction Measures

Major New Source Review

Upon redesignation for CO, the emission control requirement for new or expanding major industry in the Salem-Keizer area will change from Lowest Achievable Emission Rate (LAER) technology to Best Available Control Technology (BACT).

LAER technology is typically required in nonattainment areas that are violating air quality standards. It provides the highest and most expensive level of control and is appropriate in areas of failing air quality. In comparison, BACT is typically applied in attainment and maintenance areas—areas that are meeting air quality standards. BACT technology provides a very high level of control and in many cases specifies the same equipment as LAER. Both BACT and LAER are applied as part of a rigorous air quality permitting process but BACT allows substantial local economic, energy, environmental or other costs to be considered in determining the appropriate control technology.

Federal Motor Vehicle Emission Control Program

This Salem-Keizer maintenance plan continues to rely on federal emission standards for new motor vehicles. These requirements include the federal Tier II emission standards for new light and medium duty cars and trucks as well as standards for heavy duty on-road and non-road vehicles.

As noted earlier, On-Road Mobile Sources of CO are responsible for the highest CO concentrations in the Salem-Keizer area (as is the case in most parts of the country). That is because cars and trucks moving through an area can assemble in significant numbers at areas of heavy traffic. High CO concentrations typically occur over a small area close to a congested intersection; CO dissipates quickly over distance from a source. Therefore, it is these vehicles collected in traffic that produce the highest CO levels.

Emission reductions mandated by the Federal Motor Vehicle Emission Control Program have been primarily responsible for the large decrease in ambient CO concentrations in the past. Before CO emissions were regulated, a typical car of the 1950s emitted approximately 87 grams of CO per mile. Since then, federal rules have lowered CO emissions to the point where today's federal Tier II requirements limit cars to no more than 3.4 grams CO per mile—a 95% reduction of CO. This program will continue to be an effective control on critical On-Road Mobile Source emissions in the future.

Transportation Conformity

Federal and state transportation conformity rules require that nonattainment areas and maintenance areas demonstrate that emissions from an area's transportation system will stay within the amount of emissions anticipated by the area's air quality plan. This requires the local Metropolitan Planning Organization (MPO) to conduct a regional analysis of transportation emissions each time a Regional Transportation Plan (RTP) or Transportation Improvement Program (TIP) is adopted or amended. This analysis is conducted with computer modeling by the Salem–Keizer Area Transportation Study (which is associated with the Mid-Willamette Valley Council of Governments).

While EPA's Limited Maintenance Plan option does not exempt an area from the need to affirm conformity, it explains that the area may demonstrate conformity without submitting an emissions budget. Under the Limited Maintenance Plan option, emissions budgets are treated as essentially not constraining for the length of the maintenance

period because it is unreasonable to expect that the qualifying areas would experience so much growth in that period that a violation of the CO NAAQS would result. For transportation conformity purposes, EPA would conclude that emissions in these areas need not be capped for the maintenance period and therefore a regional emissions analysis would not be required. Similarly, Federal actions subject to the general conformity rule could be considered to satisfy the "budget test" specified in 40 CFR 93.158 (a)(5)(i)(A) for the same reasons that the budgets are essentially considered to be unlimited.

While areas with maintenance plans approved under the Limited Maintenance Plan option are not subject to the budget test, the areas remain subject to other transportation conformity requirements of 40 CFR part 93, subpart A. Therefore, SKATS and Oregon will document and ensure that:

(a.) Transportation plans and projects provide for timely implementation of SIP transportation control measures (TCMs) in accordance with 40 CFR 93.113 (Note that this limited maintenance plan does not designate any TCMs).;

(b.) Transportation plans and projects comply with the fiscal constraint element per 40 CFR 93.108;

(c.) The MPO's interagency consultation procedures meet applicable requirements of 40 CFR 93.105;

(d.) Conformity of transportation plans is determined no less frequently than every four years, and conformity of plan amendments and transportation projects is demonstrated in accordance with the timing requirements specified in 40 CFR 93.104;

(e.) The latest planning assumptions and emissions model are used as set forth in 40 CFR 93.110 and 40 CFR 93.111;

(f.) Projects do not cause or contribute to any new localized carbon monoxide or particulate matter violations, in accordance with procedures specified in 40 CFR 93.123; and

(g.) Project sponsors and/or operators provide written commitments as specified in 40 CFR 93.125.

General Conformity

Federal and state rules for general conformity require that federal actions (such as expanding an airport governed by the Federal Aviation Administration) may not produce emissions that conflict with an approved air quality plan. However, EPA concludes that "emissions budgets in limited maintenance plan areas may be treated as essentially not constraining... and that federal actions subject to the general conformity rule be considered to satisfy the budget test."

4.57.3.6 Continued Verification of Attainment

DEQ will calculate CO emissions every three years as part of the Statewide Emission Inventory which is submitted to EPA for inclusion in the National Emission Inventory (NEI). DEQ will review the NEI emissions estimates to identify significant increases over results reported for 2002. If NEI total annual CO emissions in Marion and Polk Counties increase above 2002 emission levels, DEQ will evaluate the nature of the emissions increase and resume ambient air quality monitoring if appropriate. If CO emissions from on-road motor vehicles in Marion and Polk Counties increase more than 20%, and the estimated increase is not due to a change of emissions factor computer models, DEQ will resume monitoring for CO in the Salem-Keizer area.

DEQ will also analyze CO air quality monitoring data from the remaining CO monitors in Oregon located in Portland, Eugene and Medford to verify that the Salem-Keizer area likely continues to attain the air quality standard. If the second highest 8-hour average concentration at any monitor exceeds 7.65 ppm CO, DEQ will resume monitoring directly in the Salem-Keizer area.

4.57.3.7 Contingency Plan

The maintenance plan must include a process to quickly prevent or correct any measured violation of the CO health standards. This process of investigation and (if needed) corrective action is called the "contingency plan". Contingency plans typically have several stages of action depending on the severity of air quality conditions.

1. If DEQ's periodic review of CO emissions specified in section 4.57.3.6 shows a significant increase in emissions, DEQ will reestablish ambient CO monitoring in the Salem-Keizer area.

2. If the highest measured 8-hour CO concentration in a given year in Salem-Keizer exceeds 85 percent of the 8-hr standard (7.65 ppm), DEQ will investigate the reasons for the CO increase, and take action as necessary to prevent a violation of standards.

3. If the Salem-Keizer area does violate the CO standard in the future the requirement for new and expanding industries to install LAER emission controls and to offset any new CO emissions will be automatically reinstated as specified in Oregon Administrative Rule 340-224-0060(5). DEQ will also take corrective action to bring the area into compliance while a new maintenance plan is developed for the area.

Compliance with the criteria for a limited maintenance plan and these provisions ensure that the Salem-Keizer area will not violate the CO NAAQS throughout the plan period.

4.57.4 ADMINISTRATIVE REQUIREMENTS

Administrative requirements for complying with Clean Air Act provisions are described below.

4.57.4.1 State Implementation Plan (SIP) Requirements

The Salem-Keizer area meets all requirements for the State Implementation Plan (SIP) specified in Section 110 of the federal Clean Air Act. Section 110 requires a former nonattainment area to provide for the implementation, maintenance and enforcement of an air quality standard.

4.57.4.2 Summary of Fully Approved SIP

The Salem-Keizer Area Carbon Monoxide Attainment Plan adopted in 1979 relied on the Federal Motor Vehicle Emissions Control Program and the industrial source permitting program to control CO emissions. EPA approved the attainment plan in October 1980. The current limited maintenance plan continues to rely on these programs.

4.57.4.3 1990 Clean Air Act Amendments

The 1990 Amendments to the Clean Air Act placed additional requirements on the Salem-Keizer area. These included the following:

a. 1990 emission inventory (to be revised every three years thereafter).
b. Transportation Conformity Rules.
c. New Source Review rules for major sources.
d. Contingency Measures.

4.57.4.4 Monitoring Network and Commitments

DEQ monitored CO concentrations in Salem-Keizer until March, 2006. At that time monitoring was discontinued in accordance with the terms of agreement between DEQ and EPA Region 10. This was done due to very low CO concentrations and the likelihood that CO concentrations will remain low in the future. DEQ will continue to operate and maintain the network of State and Local Air Monitoring Stations (SLAMS) and National Air Monitoring Stations (NAMS) in Portland, Eugene and Medford.

4.57.4.5 Verification of Continued Attainment

DEQ will calculate CO emissions every three years as part of the Statewide Emission Inventory which is submitted to EPA for inclusion in the National Emission Inventory (NEI). DEQ will review the NEI emissions estimates to identify significant increases over results reported for 2002. If NEI total annual CO emissions in Marion and Polk Counties increase above 2002 emission levels, DEQ will evaluate the nature of the emissions increase and resume ambient air quality monitoring if appropriate. If CO emissions from

on-road motor vehicles in Marion and Polk Counties increase more than 20%, and the estimated increase is not due to a change of emissions factor computer models, DEQ will resume monitoring for CO in the Salem-Keizer area.

DEQ will also analyze CO air quality monitoring data from the remaining CO monitors in Oregon located in Portland, Eugene and Medford to verify that the Salem-Keizer area likely continues to attain the air quality standard. If the second highest 8-hour average concentration at any monitor exceeds 7.65 ppm CO, DEQ will resume monitoring directly in the Salem-Keizer area

4.57.4.6 Maintenance Plan Commitments

As part of the CO maintenance plan, DEQ commits to do the following:

- Inventory CO emissions in Marion and Polk Counties every three years,
- Track ambient CO concentrations at monitored sites in Oregon, and
- Resume ambient CO monitoring if the triggers cited in this plan are reached or trends indicate CO concentrations are increasing significantly.

DEPARTMENT OF ENVIRONMENTAL QUALITY

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, 42 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. The State Implementation Plan was last modified by the Commission on ~~February 22, 2007~~ June 21, 2007.

(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, 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

DEPARTMENT OF ENVIRONMENTAL QUALITY

DIVISION 200

GENERAL AIR POLLUTION PROCEDURES AND DEFINITIONS

340-200-0040

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Stat. Auth.: ORS 468.020
Stats. Implemented: ORS 468A.035

DEPARTMENT OF ENVIRONMENTAL QUALITY

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: The Salem Nonattainment Area for Carbon Monoxide is the Salem-Kaiser Area Transportation Study as defined in OAR 340-204-0010.~~

(~~2~~1) PM10 Nonattainment Areas:

(a) The Eugene Nonattainment Area for PM10 is the Eugene-Springfield UGB as defined in OAR 340-204-0010.

(b) The Oakridge Nonattainment Area for PM10 is the Oakridge UGB 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

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.

(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.

(e) The Klamath Falls Carbon Monoxide Maintenance Area is the Klamath Falls UGB as defined in OAR 340-204-0010.

(f) The Salem Carbon Monoxide Maintenance Area is the Salem-Keizer Area Transportation Study as defined in OAR 340-204-0010.

(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.

(c) The Salem Maintenance Area for Ozone is the Salem-Keizer Area Transportation Study as defined in OAR 340-204-0010.

(3) PM10 Maintenance Areas:

(a) The Grants Pass PM10 Maintenance Area is the Grants Pass UGB as defined in OAR 340-204-0010.

(b) The Klamath Falls PM10 Maintenance Area is the Klamath Falls UGB as defined in OAR 340-204-0010.

(c) The Medford-Ashland PM10 Maintenance Area is the Medford-Ashland AQMA as defined in OAR 340-204-0010.

NOTE: EPA maintenance plan approval and redesignation pending.

(d) The La Grande PM10 Maintenance Area is the La Grande UGB as defined in OAR 340-204-0010.

NOTE: EPA maintenance plan approval and redesignation pending.

(e) The Lakeview PM10 Maintenance Area is the Lakeview 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

Attachment B

was not included in the copies distributed to EQC, DEQ staff or the public

Larry McAllister discovered its omission & brought a copy from the rulemaking file so we could include it in the permanent EQC record.

Aug 1, 2007

Day Marshall
OD

Summary of Public Comment and Agency Response

Title of Rulemaking: Redesignation of the Salem-Keizer Carbon Monoxide Nonattainment Area

Prepared by: Dave Nordberg **Date:** May 7, 2007

Comment period

The public comment period opened on March 15, 2007 and closed at 5:00 p.m. April 20, 2007. DEQ held a public hearing at 7:00 p.m. April 16, 2007 at the Department's Salem office. No one attended the hearing.

The U.S. Environmental Protection Agency Region 10 submitted the only set of comments on this proposed rulemaking.

Organization of comments and responses

EPA's comments sought to clarify several issues included in the Salem-Keizer CO Maintenance Plan. These were addressed as described below.

Summary of Comments and Agency Responses	
Comment 1	The Salem-Keizer CO Maintenance Plan relies on a 1999 Emissions Inventory. The maintenance plan should explain more clearly why this inventory is as good as, or more conservative than a more recent inventory.
Response	DEQ selected 1999 as an appropriate year to inventory emissions because it has the highest second-high CO measurement in the last ten years. The second highest CO concentration in 1999 was 5.9 ppm while the most recent second highest CO concentration (in 2005) was 3.7 ppm. In the face of these falling CO concentrations, DEQ feels the use of 1999 as a base year is a conservative approach that is as good as using a more recent inventory year. The use of the 1999 inventory year is supported by the addition of a motor vehicle emission factor analysis to the attainment demonstration portion of the maintenance plan (section 4.57.2.3). The analysis shows that fleet-average CO emission rates from on-road motor vehicles drop sharply between 1999 and 2017—the final year of the maintenance plan. Because on-road motor vehicles cause the highest CO concentrations, this analysis suggests the higher emission factors of 1999 would produce higher peak CO concentrations than on-road motor vehicle emissions of 2017. 1999's combination of high ambient CO concentrations and high on-road vehicle CO emission rates makes use of that year a conservative analysis.

Comment 2	The Salem CO Maintenance plan should more clearly identify all air quality control measures were used in the Salem area's attainment plan.
Response	DEQ modified Maintenance Plan section 4.57.2.3 on page 7 to clarify that the federal control measures listed were only measures applied in the Salem area CO attainment plan.

Comment 3	EPA requests that specific triggers for the contingency plan be identified.
Response	The description of contingency measures in 4.57.3.7 on page 15 is changed to clarify these measures become active if the thresholds cited in 4.57.3.6 are triggered. The thresholds are also modified as suggested by EPA: If total CO emissions increase over 2002 levels, DEQ will evaluate the need to resume CO monitoring. If emissions from on-road vehicles increase more than 20% DEQ will restore CO monitoring.

Comment 4	EPA asks that the transportation requirements under a Limited Maintenance Plan be listed in further detail.
Response	DEQ added EPA's complete description of the requirements for transportation planning under a Limited Maintenance Plan to section 4.57.3.5 on page 14.

State of Oregon
Department of Environmental Quality **Memorandum**

Presiding Officer's Report

Date: May 7, 2007

To: Environmental Quality Commission

From: John Taylor, DEQ JK Taylor

Subject: Presiding Officer's Report for Rulemaking Hearing
Title of Proposal: Redesignation of the Salem-Keizer Carbon Monoxide Nonattainment Area
Hearing Date and Time: April 16, 2007 at 7:00 p.m.
Hearing Location: DEQ, Salem Office

The Department convened the rulemaking hearing on the proposal referenced above at 7:00 p.m. No one attended the hearing and the event was closed at 7:30 p.m.

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Relationship to Federal Requirements

RULE CAPTION

Redesignation of the Salem-Keizer Carbon Monoxide Nonattainment Area

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).

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

Yes. The federal Clean Air Act requires areas such as the Salem-Keizer area to meet National Ambient Air Quality Standards (NAAQS) for six air pollutants. In the early 1970s and mid 1980s, the Salem-Keizer area violated the standard for carbon monoxide (CO) and was designated "nonattainment" for that pollutant. CO levels have fallen substantially since then and the area is eligible for redesignation from "nonattainment" under Section 175A of the Clean Air Act. As a condition of redesignation, the Oregon Department of Environmental Quality must submit a Carbon Monoxide Maintenance Plan for approval by the Environmental Protection Agency (EPA). The plan must demonstrate that the Salem-Keizer area has achieved the CO standard and indicate how the area will continue to meet the CO standard for the next ten years. EPA policy allows areas with two years' of CO levels below 85 percent of the standard to submit a "limited maintenance plan" as detailed in a memo from Joseph Paisie dated October 5, 1995. This policy provides streamlined requirements for limited CO maintenance plans recognizing that greatly reduced CO emissions from new cars and trucks make it very unlikely that qualifying areas will violate the standard in the foreseeable future. The maintenance plan supporting this redesignation request uses the limited maintenance plan approach.

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

The requirements for this limited CO maintenance plan are both performance and technology based. The Clean Air Act requires an area that is subject to a maintenance plan to implement a combination of optional and mandatory strategies that will be sufficient to control pollution emissions throughout the maintenance period. In the case of the Salem-Keizer limited CO maintenance plan, the requirement that new and expanding sources install Best Available Control Technology (BACT) is a mandatory provision of the Clean Air Act.

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?

Yes. The Salem-Keizer limited CO maintenance plan continues to rely on federal requirements such a the federal Tier II vehicle emission control program and air quality industrial permitting program (New Source Review) to stay within the CO NAAQS in the future.

4. Will the proposed requirement (rulemaking) 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?

Adoption of the Salem-Keizer CO Maintenance Plan allows new and expanding major industries to comply with air quality regulations in a more cost effective way. The CO maintenance plan promotes a predictable and stable regulatory environment.

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

The Salem-Keizer area has met air quality health standards for CO since 1987. There is no prescribed deadline for submitting the Salem-Keizer CO maintenance Plan; however, redesignation is clearly appropriate for the Salem-Keizer area and the Department has made a commitment to local government that it plans to seek redesignation in 2007.

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

Yes. Strict federal motor vehicle emission standards will keep future CO concentrations well below health standards. This allows the Salem-Keizer airshed to accommodate future growth.

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

Yes. The proposed CO maintenance plan continues to focus on the most significant sources of CO (motor vehicles). Under the proposed the New Source Review program, new and expanding major industry in the Same-Keizer area will be subject to the same requirements used for new source industrial permitting in the Portland metro area.

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

No.

9. Does the proposed requirement (rulemaking) 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. The proposed CO maintenance plan maintains the procedural, monitoring and reporting requirements established by EPA.

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

Yes.

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

The proposed CO maintenance plan uses the federal Tier II vehicle emission requirements which are now being phased in. CO emissions in the Salem-Keizer area will stay low as the new Tier II vehicles comprise an increasing proportion of the area's fleet.

DEPARTMENT OF ENVIRONMENTAL QUALITY
Chapter 340
Proposed Rulemaking
STATEMENT OF NEED AND FISCAL AND ECONOMIC IMPACT

Rule Caption	Redesignation of the Salem-Keizer Carbon Monoxide Nonattainment Area
Title of Proposed Rulemaking:	Redesignation of the Salem-Keizer Carbon Monoxide Nonattainment Area
Stat. Authority or other Legal Authority:	ORS 468.020
Stat. Implemented:	ORS 468A.035
Need for the Rule(s)	The federal Clean Air Act establishes National Ambient Air Quality Standards for carbon monoxide (CO) and requires control strategies for areas that do not meet the standard. The Salem-Keizer area violated the CO standard until the mid 1980s, but CO emissions have decreased dramatically since that time and the area has achieved the standard for 20 years. DEQ proposes that the Salem-Keizer area be redesignated to a maintenance area under state regulations and to an attainment area under federal requirements. This redesignation is appropriate because the area has clearly achieved the CO standard.
Documents Relied Upon for Rulemaking	Federal Clean Air Act; memo from the United States Environmental Protection Agency's (EPA) Joseph Paisie dated October 5, 1995; Salem-Keizer CO Attainment Plan approved by EPA effective June 24, 1980; Salem-Keizer CO monitoring data 1986 to 2006. Copies of these documents may be reviewed at the Department of Environmental Quality's (DEQ) office at 811 S.W. Sixth Avenue, Portland, Oregon. Please contact Dave Nordberg at (503) 229-5519 for times when the documents are available.
Request for Other Options	***Pursuant to ORS 183.335(2)(b)(G), DEQ requests public comment on whether other options should be considered for achieving the rule's substantive goals while reducing negative economic impact of the rule on business.***
Fiscal and Economic Impact, Statement of Cost Compliance	
Overview	Redesignation of the Salem-Keizer area to a maintenance area for CO will have three potentially significant economic effects. First, the local transportation planning agency (Salem-Keizer Area Transportation Study, or SKATS) will be subject to streamlined requirements under the transportation conformity rules. The second and third effects pertain to new and expanding industrial sources of CO emissions. The second effect of the proposed redesignation and maintenance plan is that new and expanding major industry would often no longer be required to obtain emission offsets. As a practical matter, CO emission offsets are not available within the Salem-Keizer area. This lack of CO emission offsets effectively prevents any major new source or major modification of an existing source from the Salem-Keizer area. Following redesignation, those sources will still need to go through the full air quality permitting

	process, but may be exempted from offsetting CO emissions. Third, upon redesignation, the level of emission control technology required for proposed major sources of CO and sources of CO undertaking major modifications would change. Currently, because the Salem-Keizer area is designated a nonattainment area, those sources need to install Lowest Achievable Emission Rate (LAER) control technology--the highest level of emissions control possible regardless of cost. After redesignation, those sources would be obligated to install Best Achievable Control Technology (BACT) which provides the "maximum degree of reduction" of a pollutant while allowing consideration of "energy, environmental and economic impacts." The specific type of emission control equipment required by LAER and BACT varies according to the industry and manufacturing process. In many cases, LAER and BACT result in the application of the same emission equipment. BACT requirements provide high levels of emission control and allow for consideration of cost effectiveness. Replacing the LAER requirement with BACT may result in a cost savings to new or expanding major industry. DEQ is not aware of any industries currently planning to locate to or expand in the Salem-Keizer area. Applying BACT in the Salem-Keizer area would mean that the same requirements would apply in both the Salem-Keizer and Portland areas.	
Impacts on the General Public	DEQ does not anticipate any direct fiscal or economic impacts from the proposed rule on the general public.	
Impacts on Small Business (50 or fewer employees – ORS183.310(10))	DEQ does not anticipate any negative direct fiscal or economic impacts from the proposed rule on small business. For a small business which proposes a major source or a major modification to a source pursuant to OAR Chapter 340, Division 224, DEQ anticipates that the proposed rule could have a positive direct fiscal or economic impact. For example, a proposed major source or major modification to a source would have to meet the BACT standard, instead of the potentially more costly LAER standard. Also, a proposed major source or major modification to a source would often be exempt from obtaining CO emission offsets and performing a net air quality benefit analysis. DEQ cannot accurately estimate the possible positive fiscal and economic impacts, however, because such impacts are inherently case-specific and DEQ lacks the necessary data to provide an estimate that would not be speculative.	
Cost of Compliance to Small Business (50 or fewer employees – ORS183.310(10))	a) The estimated number of small businesses subject to the proposed rule	DEQ is not aware of any small businesses that plan to propose major sources of CO, or that plan to propose a major modification of an existing source, and thus would be subject to the proposed rule.
	b) The types of businesses and industries with small businesses subject to the proposed rule	DEQ is not aware of any small businesses that plan to propose major sources of CO, or that plan to propose a major modification of an existing source, and thus would be subject to the proposed rule.
	c) The projected reporting, recordkeeping and other administrative activities required by small businesses for compliance with the proposed rule	DEQ does not anticipate any additional reporting, recordkeeping or administrative activities to comply with the proposed rule. As described above, it may be less expensive for affected sources to comply with maintenance area requirements, but it is an inherently case-specific issue and DEQ therefore cannot estimate the effects with more specificity.
	d) The equipment, supplies, labor, and	DEQ does not anticipate any additional supplies, labor or increased administration to comply with the proposed rule. As

	increased administration required by small businesses for compliance with the proposed rule	described above, it may be less expensive for affected sources to comply with maintenance area requirements, but it is an inherently case-specific issue and DEQ therefore cannot estimate the effects with more specificity.
	e) A description of the manner in which DEQ involved small businesses in the development of the proposed rule	DEQ contacted the Salem Economic Development Corporation (SEDCOR) and the Economic Development District Board to inform them of this proposed redesignation. None indicated the issue merited their participation.
Large Business	DEQ does not anticipate any negative direct fiscal or economic impacts from the proposed rule on large business. For a large business which proposes a major source or a major modification to a source pursuant to OAR Chapter 340, Division 224, DEQ anticipates that the proposed rule could have a positive direct fiscal or economic impact. For example, a proposed major source or major modification to a source would have to meet the BACT standard, instead of the potentially more costly LAER standard. Also, a proposed major source or major modification to a source would often be exempt from obtaining CO emission offsets and performing a net air quality benefit analysis. DEQ cannot accurately estimate the possible positive fiscal and economic impacts, however, because such impacts are inherently case-specific and DEQ lacks the necessary data to provide an estimate that would not be speculative.	
Local Government	Under the federal Clean Air Act and federal transportation act, metropolitan planning organizations (MPOs) in nonattainment and maintenance areas are subject transportation conformity rules. Each time a new Regional Transportation Plan (RTP) or Transportation Improvement Program (TIP) is adopted the conformity rules require an MPO to demonstrate that the emissions from the resulting transportation system conform to emissions allowed by the applicable air quality plan. This is done by preparing a regional emissions analysis which combines computer modeling of the highway system and computer modeling of the emission characteristics of the area's cars and trucks. However, EPA allows areas (such as the Salem-Keizer area) that have CO concentrations less than 85 percent of the CO standard to be redesignated using a "limited maintenance plan." One of the features of the limited plan approach is that regional emissions analyses are no longer required to demonstrate conformity. The MPO for the area is the Salem-Keizer Area Transportation Study (SKATS). SKATS estimates that not having to conduct regional emissions analyses will save it an estimated average of $31,000 per year. DEQ does not anticipate any negative direct fiscal or economic impacts from the proposed rule on local government.	
State Agencies	DEQ does not anticipate any negative direct fiscal or economic impacts from the proposed rule on state agencies.	
DEQ	DEQ does not anticipate any direct fiscal or economic impacts from the proposed rule on DEQ.	
Other agencies	DEQ does not anticipate any negative direct fiscal or economic impacts from the proposed rule on other agencies.	
Assumptions	Costs of BACT. BACT is frequently less expensive than LAER level control technology, however, in many cases the control technology analysis conducted during the air permitting process may conclude that BACT is equivalent to LAER. BACT is designed to provide a high level of emission control, and is not always less expensive than LAER.	

Housing Costs	The Department has 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.
Administrative Rule Advisory Committee	The Department did not use an advisory committee to develop this rulemaking due to a perceived low level of interest in this action. However, DEQ consulted with the SKATS Technical Advisory Committee and SKATS Policy Committee Planning while developing the plan's provisions. DEQ also consulted with the Oregon Environmental Council to identify any potential concerns from the environmental advocacy perspective.

Dave Nordberg — Prepared by
Dave Nordberg — Printed name
Mar. 13, 2007 — Date

Andrea Pollock — Approved by DEQ Budget Office
Andrea Pollock — Printed name
3/13/07 — Date

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Land Use Evaluation Statement

Rulemaking Proposal
for
Salem-Keizer Carbon Monoxide

Redesignation of Salem-Keizer Carbon Monoxide Nonattainment Area

1. Explain the purpose of the proposed rules.

The Clean Air Act establishes National Ambient Air Quality Standards (NAAQS) for six air pollutants including carbon monoxide. The Salem-Keizer area failed to meet the national standard for carbon monoxide (CO) in the past and was designated "nonattainment" for that pollutant. Redesignation requires a Carbon Monoxide Maintenance Plan, which is also included in this proposed rulemaking. The plan demonstrates that Salem-Keizer area has achieved the CO standard and indicates how the Oregon Department of Environmental Quality (DEQ) will verify the area stays below the CO limit for the next ten years. Because the area's CO concentrations are so low and have little chance of exceeding the standard in the future, the U.S. Environmental Protection Agency (EPA) is allowing the Salem-Keizer plan to use the streamlined provisions of a "limited" maintenance plan.

Once redesignation is approved by EPA, this action will lift regulatory requirements not appropriate for areas with good air quality. Specifically, the change will have three primary effects:
1) The local transportation planning agency (Salem Keizer Area Transportation Study or SKATS) will no longer have to conduct a regional CO emissions analysis each time a transportation plan is adopted or modified.
2) Major new and expanding industries in the Salem-Keizer area will be required to install Best Available Control Technology (BACT) emission control equipment rather than the more stringent Lowest Achievable Emission Rate (LAER) technology required for nonattainment areas.
3) Major new and expanding industries in the Salem-Keizer area would no longer be automatically required to offset any increased CO emissions with an equivalent amount of CO reductions in the same area.

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 _X_ No____

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

The CO maintenance plan is implemented in part through the New Source Review and Air Contaminant Discharge Permit programs which require land use compatibility determinations by local governments. Additionally, local and regional governments ensure that their comprehensive plans are consistent with the CO maintenance plan.

The Salem-Keizer CO Limited Maintenance Plan will revise Oregon's State Implementation Plan under the Clean Air Act. The plan has no other features that affect land use.

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

Yes _X_ 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.

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

State of Oregon

Department of Environmental Quality Memorandum

Date: June 4, 2007

To: Environmental Quality Commission

From: Stephanie Hallock, Director S. Hallock

Subject: Agenda Item H, Action Item: Amendment to Extend MOU for Confined Animal Feeding Operations
June 21, 2007 EQC Meeting

Why this is Important

The Confined Animal Feeding Operation (CAFO) permitting program protects water quality by preventing CAFO wastes from contaminating surface and ground water. In Oregon, wastewater discharges from CAFOs are co-regulated under a Department of Environmental Quality (DEQ) permit administered by the Oregon Department of Agriculture (ODA) under the terms of a Memorandum of Understanding (MOU).

The current MOU authorizing ODA to administer the requirements for the National Pollutant Discharge Elimination System (NPDES) permitting program related to CAFOs expires on June 30, 2007. This amendment extends the MOU until June 30, 2009. By that time, DEQ and ODA intend to renew the existing Confined Animal Feeding Operation NPDES General Permit and modify the MOU as needed to address any changes in permitting approach. Extending the current MOU authorizes ODA to continue administering the NPDES permitting program as provided under Oregon Revised Statute 468B.217 and 2001 Oregon laws Chapter 248.

Department Recommendation

DEQ recommends that the Environmental Quality Commission (EQC) extend the October 2002 MOU between ODA and EQC to June 30, 2009.

Background

In 1993 the Oregon Legislature directed the EQC and ODA to enter into a formal agreement providing for ODA to administer NPDES permitting requirements pertaining to the CAFO program. ODA currently regulates 594 CAFO operations under an NPDES General Permit in Oregon.

In 2001, the Oregon Legislature authorized and directed the transfer of the CAFO portion of the federally authorized NPDES permit program from DEQ to ODA, upon approval by EPA. ODA has been discussing the approval process with EPA; delegation to EPA would take at least two years.

Key Issues

Unless the MOU is extended, ODA cannot continue to administer the NPDES permitting program as required under Oregon Revised Statute 468B.217 and 2001 Oregon laws Chapter 248.

EQC Action Alternatives

This recommended action to extend the MOU is necessary to comply with existing Oregon Statute. Without the extension, the ODA cannot legally administer the CAFO portion of the NPDES permitting program, and DEQ or EPA would be required to take on this work.

Attachments

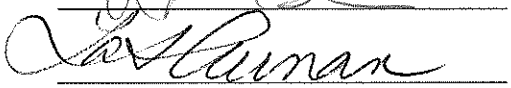
A. October 2002 EQC and ODA Memorandum of Understanding
B. Amendment to Extend October 2002 MOA

Available Upon Request

DEQ and ODA CAFO Administrative Rules, including current NPDES CAFO General Permit.

Approved:

Section: 

Division: 

Report Prepared By: Scott Manzano

Phone: 503 229-5185

~~Environmental Quality Commission and Oregon Department of Agriculture~~
Memorandum of Understanding
Relating to Confined Animal Feeding Operations
(October 2002)

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 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

11-4-02
Date

Phil Ward
Director of ODA

10/15/02
Date

Attachment B

Environmental Quality Commission and Oregon Department of Agriculture
Memorandum of Understanding
Relating to the Confined Animal Feeding Operations Amendment
(June 2007)

The Environmental Quality Commission and the Oregon Department of Agriculture hereby amend Article III of the MOU dated October 2002, and extend the effective period from June 30, 2007 to June 30, 2009.

Stephanie Hallock Director of DEQ on behalf of the Environmental Quality Commission	Katy Coba Director of ODA
Date	Date

State of Oregon

Department of Environmental Quality Memorandum

Date: June 21, 2007

To: Environmental Quality Commission

From: Stephanie Hallock, Director S. Hallock

Subject: Agenda Item I, Action Item: Request from U.S. Army Corps of Engineers for a Waiver Renewal to the Total Dissolved Gas (TDG) Water Quality Standard on the Columbia River

Why This is Important

When water plunges over the spillway of a dam additional air is forced into the water. This results in an amount of total dissolved nitrogen and oxygen gasses that are greater than the saturation amount (greater than the maximum amount which can remain dissolved in water for a long period). Over time, the excess dissolved gas will return to the atmosphere. Until then, the water is referred to as "supersaturated." Total dissolved gas is measured in terms of the percentage of gas in excess of the saturation amount.

Oregon adopted the US Environmental Protection Agency's total dissolved gas standard of 110% of saturation. The 110% of total dissolved gas protects beneficial uses of the Columbia River, including protection of aquatic life and fish, such as endangered and threatened salmonid species.

Background

Fish Migration

In order to survive, juvenile fish must be able to migrate downstream. Turbines in hydro electric dams hinder migration, so water is actively spilled from four dams on the Columbia River (McNary, John Day, The Dalles, and Bonneville dams) to allow fish passage. This is commonly referred to as "voluntary" spill. These spills, however, increase the level of total dissolved gas.

The effects of increased total dissolved gas on migrating juvenile and adult salmon due to water spill can harm salmon and cause gas bubble trauma, similar to the bends in humans. Gas bubble trauma mortality is caused by the formation of gas bubbles in the cardiovascular system. These bubbles block the flow of blood and respiratory gas exchange by the fish.

Balancing Spills and Total Dissolved Gas for Fish Survival

1996 was a naturally high flow year and there were many natural (not "voluntary") spills. During these natural spills, total dissolved gas exceeded 115% in the forebay and 120% in the tailrace, and there was a higher (4%) incidence of gas bubble trauma. Since 1996, 10 years of biological

monitoring in the lower Columbia River at Bonneville and McNary dams has shown less than 1% incidence of gas bubble trauma when total dissolved gas is limited to 115% in the forebay (upstream of the dam) and 120% in tailrace (downstream of the dam). Since 1% is a low incidence of gas bubble trauma and because spills result in increased salmon survival, a waiver from strict adherence to the standard is reasonable.

Historical Choice of Voluntary Spills

The EQC has historically granted waivers to the 110% total dissolved gas standard because of the low incidence of gas bubble trauma and the effectiveness of voluntary spill for fish passage. The NOAA National Marine Fisheries Service has identified voluntary spill as the safest, most effective tool available.

The EQC has granted waivers to the US Army Corps of Engineers (ACOE) and the US Fish and Wildlife Service (USFWS) for total dissolved gas since 1994. The ACOE and USFWS waivers allow total dissolved gas levels to rise to:

- 120% of saturation in the tailrace (the area downstream of the spilling dam) for an average of the highest 12 hours of saturation in a day.
- 115% of saturation in the forebay (the holding bay behind the dam) for an average of the highest 12 hours of saturation in a day.
- Total dissolved gas may not exceed 125% of saturation for more than two hours in every 24 hours in the forebay and tailrace.

Biological Opinion (BiOp)

The Biological Opinion is published by the US National Oceanic and Atmospheric Administration (NOAA), National Marine Fisheries Service. The opinion states whether a federal action is likely to jeopardize the continued existence of a threatened or endangered species or result in the destruction or adverse modification of critical habitat. Voluntary spill at Columbia River dams is called for under the Biological Opinion to support fish migration and can cause total dissolved gas super-saturation above the State's 110% standard.

Alternatives to Voluntary Spills

Voluntary spill is a low risk way for fish to get downstream with a mortality rate of 0 to 4% under the current waiver limits, compared to turbine passage mortalities that range between 8% and 32%.

Barge and truck transport are alternative modes of fish transport. The US Fish and Wildlife Service (USFWS) has studied transporting fall Chinook salmon directly from Spring Creek Hatchery by barge to a release site below Bonneville Dam. A very high percentage of adult returns from the barged groups became disoriented and strayed to other hatcheries or could not find acceptable spawning habitat, resulting in return rates to Spring Creek Hatchery that were significantly lower for the barge test groups than for the voluntary spill control group.

The USFWS also evaluated the possibility of rearing and releasing more fish to make up for those that would be lost to turbines or other causes during passage at Bonneville Dam. It is not possible to raise additional fish because there is not enough rearing space, water supply and waste treatment capability.

Terms of Waiver for Total Dissolved Gas (TDG) During Voluntary Spills

The USFWS waiver allows spills that exceed the TDG standard through Bonneville Dam for an unspecified ten day period in March to assist migrating Spring Creek Hatchery Chinook. The ACOE waiver allows increased spill from April 1 through August 31 at Bonneville, The Dalles, John Day, and McNary dams. The waivers require physical monitoring of total dissolved gas in the forebay and tailrace, and biological monitoring of gas bubble trauma in fish during spills.

Total Maximum Daily Load (TMDL) Allows Spills

In 2002, the States of Oregon and Washington issued a Lower Columbia River Total Dissolved Gas Total Maximum Daily Load (TMDL). The TMDL allows spills until 2020; operational and structural modifications must be in place by then, e.g., removable spillway weirs. Because the ACOE operates the dams, they are in charge of implementing the operational and structural modifications.

2006 Spill Summary

The current total dissolved gas waivers require that the USFWS and the ACOE report total dissolved gas and fish monitoring results from the previous years of spill to the EQC, as summarized below for the 2006 spill season. Note that the USFWS season ran from March 3 through 7, and the ACOE season ran from April 1 through August 31.

U.S. Fish and Wildlife Service 2006 Spill Season Report, March 3 through March 7

- USFWS released 7.35 million Chinook on Thursday, March 2, 2006. The goal was to pass more than 90% of the Chinook during spill.
- USFWS monitored water quality at mainstem Columbia River gauges below Bonneville Dam (Warrendale and Camas/Washougal) and at critical salmon spawning locations during the spill period.
- Spill volume at Bonneville Dam varied from 0-2.4 thousand cubic-feet-per-second (Kcfs).
- Total dissolved gas levels recorded downstream of the dam did not exceed the 110% total dissolved gas standard (107% actual highest).
- No biological monitoring for gas bubble trauma was conducted in 2006 because the total dissolved gas levels did not exceed 110%.
- The total dissolved gas levels measured by USFWS for shallow water spawning sites near Multnomah Falls and Ives Island did not exceed the 105% total dissolved gas standard for shallow water (104% actual).
- The fish passage goal of 90% was met.

U.S. Army Corps of Engineers 2006 Spill Season Report, April 1 through August 31

- Columbia River flows, basin precipitation and reservoir storage for the 2006 water year were 98% of average at The Dalles, with a water year average flow of 194 thousand cubic feet per second (Kcfs).
- Columbia River flows ranged from 70 Kcfs to 556 Kcfs.
- Voluntary spill for fish passage began on April 10 and ended on August 31.
- There were 36 exceedances of the 115% and 120% waiver limits due to fish passage voluntary spill, out of a possible 1296 exceedances.
- The maximum forebay total dissolved gas exceedance was120%, the waiver limit is 115% in the forebay.
- The maximum tailrace total dissolved gas exceedance was 122%, the

waiver limit is 120% in the tailrace.

- Juvenile salmon and trout monitoring for gas bubble trauma occurred at Bonneville and McNary dams two days per week. There were 7,460 juvenile salmonids examined and of those 36 individuals (0.5%) exhibited minor signs (Rank 1 or Rank 2) of gas bubble trauma at Bonneville Dam. There were no signs of gas bubble trauma in the fish collected at McNary dam.

These reports, in general, support the Department's recommendation.

Request to Renew Total Dissolved Gas Waiver

Army Corps of Engineers (ACOE) Proposal for Waiver

On November 30, 2006 the Department received a proposal from the U.S. Army Corps of Engineers (ACOE), with USFWS and NOAA Fisheries, requesting a renewal of the waiver to the State's total dissolved gas standard. The two current USFWS and ACOE waivers are being combined into one, as requested by the Department. The current total dissolved gas waiver issued in 2003 for a five-year period will expire at midnight on August 31, 2007.

Year-round Waiver Requested

The current waiver is for a specified 10-day period in March, and from April to August of each year. In contrast, the proposal requests a year-round waiver from the State standard of 110% of saturation for five years, beginning in 2008 and extending through 2012.

The ACOE is seeking to renew the current 115% saturation as measured in the forebay and 120% saturation as measured in the tailrace of each of the dams. The ACOE requests that the limits be based on the average of the highest 12 hourly readings in one day as is required in the current waiver.

The proposal summary and supporting information are presented in Attachment A.

Public Input

Public Comment Received

On January 2, 2007 the Department issued a 30 day notice to solicit public comments on the ACOE proposal to renew the waiver of the total dissolved gas standard. All comments received were supportive of issuing the total dissolved gas standard waiver to ACOE and continuing biological monitoring during spill.

Four comments were received during the 30 day public comment period

from the following entities:

1) Columbia River Inter-Tribal Fish Commission, Oregon Department of Fish and Wildlife, and Washington Department of Fish and Wildlife joint letter.
2) Northwest Sportfishing Industry Association
3) American Rivers, Association of Northwest Steelheaders, Columbia Riverkeeper, Idaho Rivers United, Institute for Fisheries Resources, National Wildlife Federation, Native Fish Society, Northwest Sportfishing Industry Association, Pacific Coast Federation of Fishermens's Association, Salmon for All, Save Our Wild Salmon, Sierra Club, and Trout Unlimited joint letter.
4) Northwest River Partners.

Their specific comments included:

- Eliminating the forebay monitors
- Not using the forebay monitors until they are re-located to a well mixed location
- Increasing forebay monitors from 115% to 120%
- Calculating total dissolved gas as the average of the highest 12 consecutive hours in one day versus the requested average of the highest 12 hours in one day
- Not allowing a year-round waiver but rather only for the April to August voluntary spill period

Department of Environmental Quality Response to Comments

The Department believes it is beneficial to utilize both forebay and tailrace total dissolved gas monitors to manage total dissolved gas from voluntary spill. According to the 2002 Total Dissolved Gas TMDL's short term Phase 1 implementation strategy, voluntary spill is to be managed utilizing both the forebay and tailrace monitors through 2010. After 2010, the tailrace monitors will be relocated to their TMDL specified locations and Adaptive Management[1] will begin.

However, the Department may approve changes in the location of

[1] **Adaptive management**, or Adaptive resource management (ARM), is a structured, iterative process of optimal decision-making in the face of uncertainty, with an aim to reducing uncertainty over time via system monitoring. In this way, decision-making simultaneously maximizes one or more resource objectives and, either passively or actively, accrues information needed to improve future management.

forebay and tail race monitors, use of forebay monitors, and may approve changes to the method for calculating total dissolved gas. Before approving any changes, the Department must consult with the Adaptive Management Team or the Federal Columbia River Power System Water Quality Team or both.

The Department does not agree that forebay monitors should increase from a limit of 115% to 120%. According to the 2000 Biological Opinion and current discussions with NOAA Fisheries, the 115% limit in the tailrace is considered to be protective of endangered and threatened salmonids and resident aquatic species, and should be kept in place. Additionally, the 2002 Total Dissolved Gas TMDL explicitly states that total dissolved gas should be limited to 115% in the forebay and 120% in the tailrace to be protective of beneficial uses during short term Phase 1 implementation strategy.

The Department does not agree that total dissolved gas level compliance should be measured as the average of the highest 12 consecutive hours in one day. Total dissolved gas measurements should be measured as specified in the 2000 Biological Opinion and as requested by the US Army Corps of Engineers as the average of the highest 12 hours in one day, whether or not the hours are consecutive. The Department recommends using the current total dissolved gas waiver language.

The Department agrees that the waiver should apply to the historical voluntary spill period of April to August. Additionally, the Department also recommends allowing voluntary spill for the Spring Creek Hatchery fish passage during a 10-day period in March as in previous years, after discussions with the US Fish and Wildlife Service. This waiver period is different than the current Washington Department of Ecology total dissolved gas waiver language which allows for a year round total dissolved gas waiver. The Washington Department of Ecology made this change in 2003.

The public comments and the Department's responses are presented in Attachment B.

Future Management of Total Dissolved Gas

Adaptive Management through Multi-Agency Collaboration
After 2010, when long-term Phase 2 implementation of the TMDL begins, voluntary spill can be managed through Adaptive Management, which may include utilizing only the tailrace monitors.

The Washington State Department of Ecology will convene the Adaptive Management Group comprising representatives of tribes and federal and state agencies to evaluate appropriate points of compliance for the TMDL. Based on these findings, further studies may be needed, and structural and operational gas abatement activities may be redirected or accelerated if needed. Adaptive Management will address the location and need for forebay monitors. Adaptive Management will begin no later than January 1, 2011.

The Columbia River flows between the states of Washington and Oregon. The Washington Department of Ecology (WDOE) is responsible for responding to ACOE's total dissolved gas waiver request in Washington. Because the Columbia River is a bi-state water body, ACOE must manage total dissolved gas to both the specifications of WDOE and the Department's total dissolved gas waivers. In 2003, WDOE approved a total dissolved gas standard that is different than the current Oregon waiver; WDOE's standard eliminated the requirement for the Camas-Washougal total dissolved gas monitor, allowed for a year-round waiver, and changed the method of calculating total dissolved gas to the average of the highest 12 consecutive hours in one day rather than the average of the highest 12 hours in one day as in Oregon's waiver.

The Department may approve changes in the location of forebay and tail race monitors, use of forebay monitors, and may approve changes to the method for calculating total dissolved gas. Before approving any changes, the Department must consult with the Adaptive Management Team or the Federal Columbia River Power System Water Quality Team or both.

Current forebay monitor placement, use or technical issues are to be resolved by the existing Federal Columbia River Power System Water Quality Team (with involvement and approval by the Department), formed separately from the Adaptive Management Team. This Water Quality Team, formed as called for in the Biological Opinion, meets monthly, and the Department's Columbia River Coordinator co-chairs the team with NOAA Fisheries. The meetings are attended by tribal, State, and Federal representatives. The team routinely discusses technical issues regarding total dissolved gas, including appropriate placement of total dissolved gas monitors to be representative of well-mixed river areas.

EQC Action Alternatives

The EQC has two action alternatives:

1. Approve the request with or without the Department's recommended modifications. To approve the Department's recommendation, the EQC must make the four affirmative findings detailed in Attachment C, as specified in OAR 340-041-0104(3);

2. Decline to approve the proposal. In this case, the EQC could decide that alternative methods of fish migration are available, such as barge transportation, or releasing additional fish from the hatchery.

Department Recommendation

DEQ recommends that the EQC grant this waiver as requested by the ACOE with the following modifications:

1. ACOE has requested a year-round waiver; however, the Department recommends the waiver apply (1) for the historical voluntary spill period of 10 days in March to account for the Spring Creek Hatchery release, from midnight April 1 to midnight August 31, and (2) if voluntary spill needs to occur outside the historical voluntary spill period for the purpose of biological or physical studies of spillway structures and prototype fish passage devices to test spill at operational levels, and ACOE has notified the Department of Environmental Quality in writing of such actions at least one week prior to implementation, and conducts physical and biological monitoring during these periods of voluntary spill; and

2. Add an Adaptive Management Component as specified in the 2002 Lower Columbia River Total Dissolved Gas Total Maximum Daily Load (TMDL). Adaptive Management will be used in the long-term implementation of the TMDL. The Adaptive Management team will evaluate appropriate points of compliance for the TMDL which may include discontinuing use of the forebay monitors, requesting further studies, and redirecting or accelerating structural and operational gas abatement activities. The goal of the TMDL is to meet the 110% total dissolved gas State criteria while allowing for voluntary fish passage spill. Adaptive management is to start no later than January 1, 2011; and

3. The Department may approve changes in the location of forebay and tail race monitors, use of forebay monitors, and may approve changes to the method for calculating total dissolved gas. Before approving

any changes, the Department must consult with the Adaptive Management Team or the Federal Columbia River Power System Water Quality Team or both.

Attachments

A. Summary of Application and Supporting Documentation
B. Summary of Public Input
C. Oregon Administrative Rule Relating to the Total Dissolved Gas Water Quality Standard
D. Draft Order Approving the U.S. Army Corps of Engineers Request for a Waiver

Available Upon Request

- U.S. Army Corps of Engineers Request and Summary of Information Relative to Total Dissolved Gas Variances
- 2002 Lower Columbia River Total Dissolved Gas Total Maximum Daily Load

Approved:

Section:

Division:

Report Prepared By: Agnes Lut
Phone: (503) 229-5247

Summary of Application and Supporting Information

Federal Agencies providing Information

Three Agencies of the Federal Government (Agencies) are providing the necessary information for the state of Oregon to use in processing variances to the state water quality standard (WQS) for total dissolved gas (TDG). The Agencies are the U.S. Army Corps of Engineers (Corps), U.S. Fish and Wildlife Service (USFWS), and National Oceanic and Atmospheric Administration Fisheries (NOAA Fisheries). The variances will be enacted as a WQS waiver for the State of Oregon and rule modification for the State of Washington. The Agencies' roles and responsibilities are as follows:

The Corps is authorized under Federal statutes to operate the eight mainstem projects on the lower Columbia and lower Snake Rivers which provide passage for migratory fish species and are the focus of these variances. Four of the projects, Bonneville, The Dalles, John Day, and McNary Dams, are located on the lower Columbia River in both Oregon and Washington. The other four projects, Ice Harbor, Lower Monumental, Little Goose, and Lower Granite Dams, are located on the lower Snake River in Washington. The projects operate for multiple purposes and uses including flood control, power generation, navigation, irrigation, fish & wildlife protection, water quality, and recreation. The Corps operates the mainstem projects and manages the hydrosystem through its Northwestern Division and Portland District offices in Portland, Oregon, and its Walla Walla District office, located in Walla Walla, Washington.

The USFWS operates fish hatcheries in the Columbia River basin to augment fish stocks and improve fisheries. One of these hatcheries is the Spring Creek National Fish Hatchery, located in Underwood, Washington, 21 miles upstream of Bonneville Dam. Fish released from Spring Creek Hatchery pass through the project both as juvenile fish migrating downstream and as returning adult fish passing upstream through the project. The Spring Creek Hatchery typically has an early March release of juvenile fall Chinook salmon, the first of three releases of fish in the spring. For many years the Corps has provided special operations at Bonneville Dam for the early March release.

As part of a 3-year operational agreement among the Corps, USFWS, and the Bonneville Power Administration (BPA), the spillway and corner collector were operated alternatively in 2004 to compare juvenile fish passage between the two routes at Bonneville Dam. Then, in March 2005 and 2006 the corner collector operated instead of spill for fish passage during Spring Creek Hatchery releases. Juvenile fish passage research at Bonneville Dam during this period has shown higher fish survival at the second powerhouse corner collector and bypass than the spillway (Counihan et al. 2006a and 2006b). These research results along with other information are evaluated and coordinated in the Federal Columbia River Power System teams to determine optimum operations for fish passage in the future. The Federal Columbia River Power System teams meet on a monthly basis, are comprised of federal, state and tribal agencies, and public utility districts. The teams discuss water quality and endangered species act attainment, the need

to balance environment and energy, and implementation of restoration activities to manage dams in a way that minimizes their impact on the environment.

NOAA Fisheries determines and regulates activities under the Federal Endangered Species Act (ESA) to protect and avoid jeopardy to 12 species of anadromous salmon and steelhead in the Columbia River basin which they have listed as threatened and endangered under the ESA. Since 1992, NOAA Fisheries has prepared several Biological Opinions on operation of the Columbia/Snake hydrosystem which call for project spill in the spring and summer for juvenile fish passage. The spill levels needed to protect ESA-listed fish species often result in exceedances of the Oregon and Washington WQS of 110% for TDG saturation. The Corps is currently operating in accordance with the 2004 NOAA Fisheries BiOp on Operation of the Federal Columbia River Power System (FCRPS) and a 2004 Updated Proposed Action (UPA) prepared by the Corps, BPA, and Bureau of Reclamation (Reclamation). NOAA Fisheries referred to the UPA in preparing the 2004 BiOp.

TDG Limits for the Variances

The Corps, Reclamation, and BPA currently are operating in accordance with the 2004 BiOp and UPA. The 2004 BiOp and UPA both support spill management at TDG limits of 120% as measured in the tailrace of each project and 115% at the forebay of the next project downstream. For spill management, the UPA states that "we will provide specific spill levels for juvenile fish passage at each project, not to exceed established TDG levels (either the 110 percent TDG standard, or as modified by state water quality waivers, up to 120 percent TDG). The UPA spill table specifies spill management to a "120/115 gas cap" level at mainstem dams (UPA, Table 4, page 50). The limits are based on the average of the 12 highest hourly readings in a day. The Corps believes these limits and locations are appropriate for the next WQS waiver and rule modification as well. The rationale for spill TDG management levels above the Oregon and Washington WQS of 110% is explained in this summary and the supporting documents.

In 2004, the National Wildlife Federation sued NOAA. Oregon is also a plaintiff in this lawsuit. The litigation alleges that the Federal Columbia River Power System Biological Opinion (Bi-Op) is arbitrary and capricious and contrary to the provisions of the Endangered Species Act (ESA). The litigation states that the Bi-Ops proposed mitigation for the recovery of threatened and endangered salmon was not sufficiently certain to occur. A BiOp is the opinion of NMFS as to whether a federal action is likely to jeopardize the continued existence of a threatened or endangered species or result in the destruction or adverse modification of critical habitat; it also identifies mitigation strategies to recover the threatened and endangered species. The State requested a re-evaluation of the BiOp with mitigating actions identified that would certainly occur. The court agreed with Oregon's position, and has required the federal government to re-evaluate the BiOp by Fall 2007. The Court ordered a collaborative process among Federal, State, and Tribal entities on the development of a new proposed action and jeopardy framework. In addition, the Court ordered specific spill operations for fish passage at mainstem dams in summer 2005 and spring/summer 2006. Federal, State, and tribal entities are now discussing

annual river operations and longer range actions to protect threatened and endangered listed fish species. The Oregon Department of Fish and Wildlife (ODFW) is the lead agency working with the Governor's office on this case.

Location and Timing for Application of Proposed Limits and Points of Compliance
The US Army Corps of Engineers requests that the TDG waiver and rule modification apply year round on the lower Columbia and Snake Rivers. Operational BiOp spill for fish passage on the lower Snake River currently begins on April 3 and continues through August 31. On the lower Columbia River, BiOp spill currently starts on April 10 and also continues through August 31. In addition, biological or physical studies of spillway structures and prototype fish passage devices may occur in the fall or winter. These tests may require spill that exceeds the 110% WQS for TDG in order to test spill at operational levels. Also, there is a potential for Bonneville Dam special operations for March releases of fish from the Spring Creek Hatchery, including operation of the second powerhouse corner collector and/or spillway, to exceed the 110% WQS for TDG. For these reasons, it would be appropriate for the states to process a year round variance to the WQS for TDG.

Points of TDG measurement to determine consistency with the WQS variances are a single fixed monitoring site (FMS) located in the tailwater downstream of the aerated zone below the spillway at each mainstem dam, and a single FMS located in the forebay of the next project downstream. The forebay FMS is attached to a project structure. There are tailwater and forebay FMSs for each of the eight mainstem dams. The TDG monitoring network also includes sites at the mid-Columbia projects, in the Columbia upstream to the international border with Canada, and at the Dworshak Dam tailrace in Idaho. Below Bonneville Dam, a downstream FMS is currently located at Camas/Washougal to represent river conditions in that area. This serves as the "forebay" gauge and is managed to 115% TDG for setting spill levels at upstream projects, the same as other forebay gauges are used. The Federal Columbia River Power System Water Quality Team (WQT) has been evaluating the location and representativeness of this FMS for several years. Its location could change in the future depending on additional physical and biological information. Whether located at Camas/Washougal or another location downstream of Bonneville Dam, a downstream FMS is expected to continue to operate for spill management at upriver projects. The current specific locations of the FMS are shown in Appendix A of the 2005 TDG and Temperature Monitoring Report (Attachment 6). The Report is available on the web at: http://www.nwd-wc.usace.army.mil/tmt/wq/tdg_and_temp/2005/

Need for the Proposed Waiver
The proposed variances will provide regulatory consistency between Federal measures to protect ESA listed fish species and State WQS as modified by the variances. Project spill levels which will generate TDG levels in excess of the WQS of 110% of saturation are needed to increase survival of juvenile fish passing through the mainstem projects and enhance the recovery of ESA-listed salmon and steelhead species. These spill levels also are expected to improve survival

for non listed species such as lamprey. The 2004 BiOp specifies spill to 115%/120% TDG levels in order to provide spill needed for safe, effective passage of juvenile fish in the spring and summer.

U.S. Army Corps of Engineers Documentation of Findings
Mainstem dam operations: Recent NOAA Fisheries BiOps, the 2004 UPA prepared by the Corps, Reclamation, and BPA, as well as Court Orders dated June 2005 and December 2005, have committed the Federal operators to a project operation strategy that balances fish passage through spill, bypasses and powerhouses. This includes the transportation of juvenile fish from collector dams, to be released back into the Columbia River downstream of Bonneville Dam. Extensive evaluations leading to these strategies have been based on comparative analysis of project-specific survival through various passage routes to determine the optimum survival strategies. Biological assessments and opinions have consistently concluded that providing project spill for fish passage at levels that result in exceedances of the 110% WQS for TDG is necessary to assure adequate passage conditions, survivals, and adult returns to protect and recover ESA-listed fish species. Failure to provide the project spill levels called for in the BiOp and Court Orders would result in reduced fish survival in the hydrosystem and raise compliance issues regarding both ESA and Federal Court Orders.

Department Findings
According to 10 years of biological monitoring in the lower Columbia River at Bonneville and MaNary dams, there has been less than one percent incidence of gas bubble disease when total dissolved gas is limited to 115% in the forebay and 120% in tailrace. In 1996, when total dissolved gas limits exceeded 115% in the forebay and 120% in the tailrace there was a 4.2 percent incidence of gas bubble disease. The low incidence of gas bubble disease observed has been regarded as a low risk for mortality from gas bubble disease by the Department. Resident fish and aquatic invertebrates in the Columbia River downstream of Bonneville Dam were monitored by National Marine Fisheries Service for signs of gas bubble disease from 1993 to 1998. There were no signs of gas bubble disease observed in the aquatic invertebrates examined. There was a low incidence of gas bubble disease (less than one percent) in resident fish examined in 1993 and 1995 while in 1994, 1997 and 1998 none of the fish observed had signs of gas bubble disease. Signs of gas bubble disease were prevalent in 1996 but this was a high flow year with large volumes of involuntary spill and total dissolved gas levels above 115 percent in the forebays and 120 percent in the tail races of dams. Additionally, studies have shown turbine mortalities between 8 and 32 percent compared with 0 to 4 percent for spillway passage. Given the past monitoring of gas bubble disease, the levels requested in this petition seem to be a reasonable balance between increased survival due to reduced turbine mortality and the risk of mortality from gas bubble disease.

Summary of Public Comments Received

The Department issued a Public Notice on January 02, 2007 opening a public comment period on the request from the U.S. Army Corps of Engineers for a waiver renewal to the total dissolved gas water quality standard on the Columbia River. No public hearing was held during the 30 day public comment period. Written comments were due at 5:00 p.m. on February 01, 2007.

The Department received four comments during the 30 day public comment period. One comment was received after the 30-day public comment period recommending that total dissolved gas compliance should be based on the "average of the 12 highest consecutive hours in one day, defined from noon to noon". However, the Department did not respond to this comment because it was made outside the 30 day public comment period. The public comments are summarized below:

1. **Columbia River Inter-Tribal Fish Commission, Oregon Department of Fish and Wildlife, and Washington Department of Fish and Wildlife joint letter.**

The commenters recommend granting the requested total dissolved gas waiver with some modifications. The commenters request the new waiver include a plan to resolve forebay monitoring placement issues or suspend the use of forebay monitors to only rely on the tailrace monitors until technical issues are resolved with the forebay monitors. The commenters state that the forebay monitors lack reliability and accuracy due to their monitoring location. They present data which demonstrates that it is nearly impossible to obtain valid forebay measurements of total dissolved gas levels that represent upstream total dissolved gas levels from spill operations or that are representative of mixed water column due to problems with monitor locations and interference from environmental factors that affect total dissolved gas readings, such as wind and temperature. The commenters further state that management of voluntary spill and total dissolved gas to the 120 percent in the tailrace will not increase risk to fish due to the nearly 200,000 juvenile salmonids examined for gas bubble trauma. These fish have shown less than 2% incidence of gas bubble trauma when spill was managed to 120 percent in the tailrace. Lastly, the commenters support the continuation of biological monitoring during voluntary spill as in previous years to assess effects of the voluntary spill program on incidence of gas bubble trauma in fish.

Department Response to Comments:
The Department believes it is beneficial to utilize both forebay and tailrace total dissolved gas monitors at this time to manage total dissolved gas from voluntary spill to protect beneficial uses. According to the 2002 Total Dissolved Gas TMDL's short term Phase 1 implementation strategy, voluntary spill is to be managed utilizing both the forebay and tailrace monitors through 2010. After 2010, when long-term Phase 2 implementation begins,

voluntary spill may be managed through adaptive management utilizing only the tailrace monitors. Adaptive Management will address the location and need for forebay monitors. Adaptive Management will begin no later than January 1, 2011. The Washington State Department of Ecology will convene the Adaptive Management group comprising representatives of Oregon Department of Environmental Quality, tribes, federal and state agencies to evaluate appropriate points of compliance for the TMDL. Based on these findings, further studies may be needed, and structural and operational gas abatement activities will be redirected or accelerated if needed.

Current forebay monitor placement, use or technical issues need to be resolved by the Federal Columbia River Power System Water Quality Team in order to have a technical discussion among all affected and interested agencies, with involvement and approval by the Department. The Water Quality Team meets monthly, and the Deparment's Columbia River Coordinator co-chairs the team with NOAA Fisheries. The meetings are attended by tribal, State, and Federal representatives. The team routinely discusses technical issues regarding total dissolved gas, including appropriate placement of forebay total dissolved gas monitors to be representative of well-mixed river areas.

The Department may approve changes in the location of forebay and tail race monitors, use of forebay monitors, and may approve changes to the method for calculating total dissolved gas. Before approving any changes, the Department must consult with the Adaptive Management Team or the Federal Columbia River Power System Water Quality Team or both.

The Department does not agree that tailrace monitors should increase from a limit of 115 percent to 120 percent. According to the 2000 Biological Opinion and current discussions with NOAA Fisheries, the current 115 percent limit in the tailrace is considered to be protective of endangered and threatened salmonids and resident aquatic species, and should be kept in place. Additionally, the 2002 Total Dissolved Gas TMDL explicitly states that total dissolved gas should be limited to 115 percent in the forebay and 120 percent in the tailrace to be protective of beneficial uses.

The Department agrees that biological monitoring should continue during voluntary spill.

2. Northwest Sportfishing Industry Association

The commenter supports the request for the total dissolved gas waiver by the U.S. Army Corps of Engineers, and encourages the continuation of biological monitoring as in previous years. However, they would like to discontinue the use of forebay monitors because these monitors appear to have difficulty measuring total dissolved gas and are probably serving more as a cap or limit to spill levels than contributing to the biological objectives of passing fish and fish survival.

Department Response to Comments:
The Department agrees that biological monitoring should continue during voluntary spill.

The Department believes it is beneficial to utilize both forebay and tailrace total dissolved gas monitors at this time in order to manage voluntary spill total dissolved gas to protect beneficial uses. Current forebay monitor placement, use or technical issues need to be resolved by the Federal Columbia River Power System Water Quality Team in order to have a technical discussion among all affected and interested agencies, with involvement and approval by the Department. Please see Department's response to commenter 1, above.

3. **American Rivers, Association of Northwest Steelheaders, Columbia Riverkeeper, Idaho Rivers United, Institute for Fisheries Resources, National Wildlife Federation, Native Fish Society, Northwest Sportfishing Industry Association, Pacific Coast Federation of Fishermens's Association, Salmon for Al l, Save Our Wild Salmon, Sierra Club, and Trout Unlimited joint letter.**

The commenters support the U.S. Army Corps of Engineers total dissolved gas waiver request. However, the commenters request the re-evaluation of the forebay monitors in measuring total dissolved gas. They cite a 2006 Fish Passage Center document which states that the forebay monitors are "not indicative of the readings in a well-mi xed water column due to the local influence of temperature, barometric pressure and biological processes." They recommend that DEQ discontinue the requirement to monitor total dissolved gas in the forebay and instead only use the tailrace monitors to measure and limit total dissolved gas levels to 120 percent. If in the event that forebay monitors are continued to be used in limiting total dissolved gas to 115 percent, then the commenters recommend that the waiver criteria increase the forebay limits from 115 percent to 120 percent. Additionally, the commenters state that the waiver limits should be calculated as the average of the 12 highest consecutive total dissolved gas readings per day because it tracks more closely with fish activity; rather than the current waiver language which is based on the average 12 highest readings in a day.

Department Response to Comments:
The Department believes it is beneficial to utilize both forebay and tailrace total dissolved gas monitors at this time in order to manage voluntary spill total dissolved gas to protect beneficial uses. Current forebay monitor placement, use or technical issues need to be resolved by the Federal Columbia River Power System Water Quality Team in order to have a technical discussion among all affected and interested agencies, with involvement and approval by the Department. The Department does not agree that tailrace monitors should increase from a limit of 115 percent to 120 percent. Please see Department's response to commenter 1, above.

The Department does not agree that total dissolved gas level compliance should be measured as the average of the 12 highest consecutive hours in one day. Total dissolved gas measurements should be measured as specified in the 2000 Biological Opinion and as requested by the US Army Corps of Engineers as the 12 highest hours in one day. The historical waiver calculation of total dissolved gas is to be continued; the calculation is based on the findings of the 2000 Biological Opinion which clearly states that total dissolved gas is to be measured as the "average of the 12 highest hours in one day". If the Biological Opinion language changes the method of calculating total dissolved gas, then the Department may update the waiver language to be reflective of any Biological Opinion update of the method of calculating total dissolved gas.

4. Northwest River Partners.

The Commenter has requested that the total dissolved gas waivers remain in place with the same limitations as described in the current U.S. Army Corps of Engineers waiver, issued March 2003.

Specifically, the commenter requests the waiver is to be issued for the period April to August instead of year-round as requested by the U.S. Army Corps of Engineers, total dissolved gas is to be measured at both the forebay and tailrace and Camas-Washougal, and that the waiver should be in place for a five-year period. Additionally, the commenter did not support the need to maintain voluntary spill for Spring Creek Hatcher fish passage during the month of March as in pervious years. The commenter did identify that they were concerned with the impact of global warming and increase of greenhouses gas on total dissolved gas levels and water quality in general. Lastly, the commenter acknowledged the need for the U.S. Army Corps of Engineers to ultimately meet water quality standards of 110 percent and maintain fish passage efficiency as described in the 2002 Total Dissolved Gas Total Maximum Daily Load (TMDL).

Department Response to Comments:
The Department appreciates the comments regarding the goal of the 2002 Total Dissolved Gas TMDL ultimately requiring 110 percent total dissolved gas standard and maintain fish passage efficiency during voluntary spill. The Department agrees that a total dissolved gas waiver should be issued to the U.S. Army Corps of Engineers for a 5 year period, for a voluntary spill season of April to August, and to require physical monitoring at both the tailrace and forebay of each dam. However, the Department also sees the need to allow for voluntary spill for the Spring Creek Hatchery fish passage during a 10-day period in March as per previous years, and discussions with the US Fish and Wildlife Service.

The Department will not be including the citation to the Camas-Washougal monitor in the total dissolved gas waiver. The US Army Corps of Engineers did not explicitly ask for the

inclusion of the Camas-Washougal monitoring station in their request for the total dissolved gas waiver. Instead, the Corps simply requested a total dissolved gas waiver that would apply in the forebay and tailrace.

Global warming and the increase of greenhouse gas is also a concern to the Department and the State of Oregon. In early 2004, Governor Kulongoski convened an Advisory Group on Global Warming. Consisting of community and business leaders from across Oregon, the Group was charged with recommending ways that Oregon can reduce its emissions of heat-trapping gases, such as carbon dioxide and methane. For more information, please visit the Department's website: http://www.deq.state.or.us/lq/sw/globa lwarming.htm

Oregon Administrative Rule on the Total Dissolved Gas Water Quality Standard

Oregon's Water Quality Standards are contained in Oregon Administrative Rules (OAR) 340, Division 41. The standards relevant to the total dissolved gas (TDG) are found in OAR 340-041-0031 and OAR 340-041-0104:

340-041-0031
Total Dissolved Gas
(1) Waters will be free from dissolved gases, such as carbon dioxide hydrogen sulfide, or other gases, in sufficient quantities to cause objectionable odors or to be deleterious to fish or other aquatic life, navigation, recreation, or other reasonable uses made of such water.

(2) Except when stream flow exceeds the ten-year, seven-day average flood, the concentration of total dissolved gas relative to atmospheric pressure at the point of sample collection may not exceed 110 percent of saturation. However, in hatchery-receiving waters and other waters of less than two feet in depth, the concentration of total dissolved gas relative to atmospheric pressure at the point of sample collection may not exceed 105 percent of saturation.

340-041-0104
Water Quality Standards and Policies Specific to the Main Stem Columbia River
(3) Total Dissolved Gas. 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:

(a) Failure to act would result in greater harm to salmonid stock survival through in-river migration than would occur by increased spill;

(b) 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;

(c) Adequate data will exist to determine compliance with the standards; and

(d) Biological monitoring is occurring to document that the migratory salmonid and resident biological communities are being protected.

(e) 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;

(f) The Commission may, at its discretion, consider alternative modes of migration.

Draft Order Approving the U.S Army Corps of Engineer's Request for a Waiver to the State's Total Dissolved Gas Water Quality Standard

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION

In the matter of the U.S. Army Corps of Engineers' request to spill water to assist out-migrating threatened and endangered salmon smolts	))))	FINDINGS and ORDER

FINDINGS

1. The Department of Environmental Quality received a request from the U.S. Army Corps of Engineers dated November 30, 2006, to adjust the Total Dissolved Gas Standard as necessary to spill water over McNary, John Day, The Dalles and Bonneville Dams on the Lower Columbia River to assist out-migrating threatened and endangered salmon smolts, for a year-round period. The application sought approval for five years. The public was notified of the request on January 02, 2007 and given the opportunity to provide written comments until 5:00 p.m. on February 01, 2007.

2. Acting under **OAR 340-041-0104(3)** the Commission finds that:

(a) Failure to act would result in greater harm to salmonid stock survival through in-river migration than would occur by increased spill:

Estimated mortality from fish passing through turbines is between 8 and 32 percent. Fish passing over spillways as a result of spill experience 0 to 4 percent mortality. Barge and truck transport are alternative modes of fish transport to voluntary spill. Transporting fall Chinook salmon directly from Spring Creek Hatchery by barge to a release site below Bonneville Dam has been studied. A very high percentage of the adult returns from the barged groups strayed to other hatcheries, and the return rates to Spring Creek Hatchery were significantly lower for the barge test groups than for the voluntary spill control group. The USFWS also evaluated the possibility of raising and releasing additional fish to make up for those that would be lost to turbines or other causes during passage at Bonneville Dam in the absence of spill. It would not be possible to raise additional fish because rearing space, water supply, and waste treatment capability are limited. It would also not be feasible to release fish at a later date because of limited hatchery capacity since these fish would continue to grow and exceed hatchery space capacity.

(b) 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:

According to 10 years of biological monitoring in the lower Columbia River at Bonneville and MaNary dams, there has been less than 1 percent incidence of gas bubble disease when total dissolved gas is limited to 115% in the forebay and 120% in tailrace. Comparatively, in 1996, when total dissolved gas limits exceeded 115% in the forebay and 120% in the tailrace there was a 4 percent incidence of gas bubble disease. The low incidence of gas bubble disease observed has been regarded as a low risk for mortality from gas bubble disease. Resident fish and aquatic invertebrates in the Columbia River downstream of Bonneville Dam were monitored by National Marine Fisheries Service for signs of gas bubble disease from 1993 to 1998. There were no signs of gas bubble disease observed in the aquatic invertebrates examined. There was a low incidence of gas bubble disease (less than one percent) in resident fish examined in 1993 and 1995 while in 1994, 1997 and 1998 none of the fish observed had signs of gas bubble disease. Signs of gas bubble disease were prevalent in 1996 but this was a high flow year with large volumes of involuntary spill and total dissolved gas levels above 115 percent in the forebays and 120 percent in the tail races of dams. Given the past monitoring of gas bubble disease, the levels requested in this petition strike a reasonable balance between increased survival due to reduced turbine mortality and the risk of mortality from gas bubble disease.

c) Adequate data will exist to determine compliance with the standards:

The Corps has submitted a physical monitoring plan. Physical in-river total dissolved gas monitoring will be conducted in the forebay and tailraces of McNary, John Day, The Dalles, and Bonneville Dams. Hourly data will be available on the Corps' Internet page. Implementation of the physical monitoring plan will ensure that data will exist to determine compliance with the standards for the voluntary spill program.

d) Biological monitoring is occurring to document that the migratory salmonid and resident biological communities are being protected:

The Corps has submitted a biological monitoring plan. Juvenile salmonids will be collected at Bonneville and McNary Dams and examined and evaluated for incidence of Gas Bubble Trauma, and will be assign ranks based on severity of symptoms. Biological monitoring will occur according to the Fish Passage Center Gas Bubble Trauma Monitoring Program Protocol for Juvenile Salmonids.

Order

3. The Environmental Quality Commission approves a modification to the Total Dissolved Gas standard for voluntary spill at McNary, John Day, The Dalles and Bonneville Dams on the Lower Columbia River, subject to the following conditions:

(i) A modified total dissolved gas standard for the Columbia River applies:

a) during the fish passage voluntary spill 10-day period in March for the purpose of Spring Creek Hatchery, and the period from midnight on April 1 to midnight on August 31 for the purpose of fish passage; and

b) during any period of voluntary spill that occurs outside the periods specified in 3(i)(a) above, if the spill is for the purpose of biological or physical studies of spillway structures and prototype fish passage devices to test spill at operational levels, and the U.S. Army Corps of Engineers has notified the Department in writing of such actions at least one week prior to the voluntary spill and conduct physical and biological monitoring during these periods of voluntary spill.

(ii) The modified total dissolved gas criteria will apply for 2008, 2009, 2010, 2011 and 2012.

(iii) Spill must be reduced when the average total dissolved gas concentration of the 12 highest hourly measurements per calendar day exceeds 115% of saturation in the forebays of McNary, John Day, The Dalles, and Bonneville Dams monitoring stations.

(iv) Spill must be reduced when the average total dissolved gas concentration of the 12 highest hourly measurements per calendar day exceeds 120% of saturation in the tailraces of McNary, John Day, The Dalles, and Bonneville Dams monitoring stations.

(v) Spill must be reduced when instantaneous total dissolved gas levels exceed 125% of saturation for any 2 hours during the 12 highest hourly measurements per calendar day.

(vi) The Department may approve changes in the location of forebay and tailrace monitors, use of forebay monitors, and may approve changes to the method for calculating total dissolved gas. Before approving any changes, the Department must consult with the Adaptive Management Team or the Federal Columbia River Power System Water Quality Team or both.

(vii) If 15 percent or more of the juvenile fish examined show signs of gas bubble disease in their non-paired fins where more than 25 percent of the surface area of the fin is occluded by gas bubbles or that contra-indicatory evidence suggests that fish are being harmed, the Director must terminate the modification.

(viii) The Corps must provide written notice to the Department within 24 hours of any violations of the conditions in the modification as it relates to voluntary spill. Such notice must include actions proposed to reduce total dissolved gas levels or the reason(s) for no action.

(ix) No later than December 31 for each year of this waiver, the Corps must provide an annual written report to the Department detailing the following:

a) flow and runoff descriptions for the spill season;
b) spill quantities and durations;
c) quantities of water spilled for fish versus spill for other reasons for each project;
d) data results from the physical and biological monitoring programs, including incidences of gas bubble disease;
e) description and results of any biological or physical studies of spillway structures and prototype fish passage devices to test spill at operational levels; and
f) progress on implementing the measures contained in the 2002 Lower Columbia River Total Dissolved Gas Total Maximum Daily Load (TMDL).

(x) If requested, the Corps must report to the Commission on any of the above matters or other matters relevant to this Order.

(xi) The Commission reserves the right to terminate or modify this modification at any time.

Adaptive Management

The process for reviewing the implementation status of the 2002 Lower Columbia River Total Dissolved Gas TMDL will begin no later than January 1, 2011. The Washington State Department of Ecology will convene an advisory group comprising representatives of Oregon Department of Environmental Quality, tribes, 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. After 2010, the location of total dissolved gas monitors will be consistent with the Adaptive Management implementation strategy for the 2002 Lower Columbia River Total Dissolved Gas TMDL, and may no longer require forebay monitors and may only require tailrace monitors as TMDL implementation transitions from short-term to long-term strategies.

Dated: _____ ON BEHALF OF THE COMMISSION

_____
Director

THEODORE R. KULONGOSKI
OREGON

June 20, 2007

Ms. Stephanie Hallock, Director
Oregon Department of Environmental Quality
811 SW 6th Avenue
Portland, OR 97204-1390

Re: Comments on Proposed Total Dissolved Gas Waiver Renewal for Mainstem Columbia River

Dear Ms. Hallock:

I am submitting the following comments for use by the Environmental Quality Commission (EQC) in decisions on applications by the US Army Corps of Engineers (Corps) and US Fish and Wildlife Service (USFWS) to modify Oregon's Water Quality Standard for total dissolved gas (TDG) for a 5-year time period, 2008-2012.

Our office is actively engaged in the development of a new Proposed Action and Biological Opinion for operation of the Federal Columbia River Power System. Spill and flow are cornerstone measures in an aggressive non-breach strategy attempting to meet minimum conservation requirements of the federal Endangered Species Act. Providing as much spill as possible, within biological constraints, is especially important during the near term while surface-oriented dam passage technologies are developed and tested.

For the general fish passage season, our office concurs with the Department of Environmental Quality (DEQ) staff recommendation that the EQC grant the waiver requests—including that the Corps' general passage season waiver be restricted to the April-August voluntary spill period to coincide with the time periods in the Federal Columbia River Power System Biological Opinions—and that spill requests for research and other activities during other months be handled on a case-by-case basis with appropriate notification of DEQ. The waiver request for TDG variance to provide for spill at Bonneville Dam for ten days in March to increase survival of Spring Creek Hatchery juvenile Fall Chinook is also very important and should be approved by the EQC. These fish provide important sport, commercial and tribal harvest, and buffer harvest of ESA-listed Columbia River fish by Canadian fisherman.

As discussed in the February 1, 2007 letter submitted to DEQ by Oregon and Washington Department of Fish and Wildlife and Columbia River Inter-Tribal Fish Commission, there are serious problems with forebay monitoring. I urge DEQ and the EQC to immediately convene the adaptive management group identified by the Lower Columbia River Total Dissolved Gas TMDL to resolve these issues. If these issues are not resolved, I support suspending use of forebay monitoring in spill management and including only tailrace monitoring and use of existing 120 percent TDG criteria to manage spill and determine waiver compliance. Over the last 15 years since adoption of the waivers, comprehensive biological monitoring and research programs have demonstrated that the biological risks to managing spill to tailrace monitors at 120 percent TDG is very low and the potential biological benefits from increased spillway passage and reduction in fish transportation would be substantial. In the near term, there are few if any opportunities to enhance fish survival associated with dam passage, other than increased spill.

I urge the EQC to approve the waiver request, and urge DEQ to expedite addressing issues related to forebay monitoring through the Adaptive Management Team that has been established through the Lower Columbia TDG Total Maximum Daily Load process. I recommend the team provide a detailed implementation plan and schedule for 2008 for improving the reliability and accuracy of forebay monitoring.

Sincerely,

Michael Carrier
Natural Resources Policy Director

MC:jb

Opening Remarks of Lauri Aunan, Water Quality Administrator
Environmental Quality Commission June 21, 2007
Agenda Item I – Action Item – Request from Federal Agencies for a Waiver Renewal to the Total Dissolved Gas Water Quality Standard on the Columbia River

Good afternoon Chairwoman Hampton and members of the Commission. For the record, I am Lauri Aunan, DEQ's Water Quality Administrator. With me are Agnes Lut, DEQ's Columbia River Coordinator, and Gene Foster, Manager of the Watershed Management Section.

Before I turn it over to Agnes, I'll say just a few words about this agenda item.

The Oregon Department of Environmental Quality (DEQ) is responsible for setting water quality standards for Oregon under the federal Clean Water Act. In Washington, the Department of Ecology sets water quality standards.

At times, the Lower Columbia River exceeds Total Dissolved Gas water quality standards in Oregon and Washington, due to spills at the four dams on the Lower Columbia River. In addition to causing exceedances of water quality standards, the dams also have a significant adverse effect on threatened and endangered fish.

The responsibility of the federal government to address the effect of the dams on threatened and endangered fish is the subject of a Biological Opinion by the US National Oceanic and Atmospheric Administration (NOAA), National Marine Fisheries Service. As you will hear from some who will testify later today, there is ongoing litigation about the Biological Opinion, known as "Bi-Op" in shorthand.

In 2002, the Environmental Protection Agency approved the Lower Columbia River Total Dissolved Gas Total Maximum Daily Load (TMDL) developed by DEQ and the Washington Department of Ecology with input from Tribes, the Columbia River Inter-Tribal Fish Commission, Environmental Protection Agency, Idaho Department of Environmental Quality, federal agencies, and other state agencies. This TMDL, which Agnes will discuss in more detail in a few minutes, includes pollution load allocations for Total Dissolved Gas that are intended to bring Total Dissolved Gas levels into line with the water quality standard required by the Clean Water Act. It also includes an implementation plan that allows for higher levels of Total Dissolved Gas for the short term to allow the federal agencies to comply with their obligations under the Endangered Species Act.

The TMDL and its implementation provisions were based on the Bi-Op in effect at the time that the TMDL was developed, and the TMDL remains consistent with the existing Bi-Op. If the requirements under the Endangered Species Act change to require more spill, DEQ believes that the TMDL implementation plan and the requirements of any Commission order modifying the Total Dissolved Gas limits can and should be revised to accommodate this.

The TMDL ultimately requires the dams to alter operations and implement structural modifications to achieve the Oregon and Washington Total Dissolved Gas standard. In the short term, we agree that we need to move as quickly as possible to resolve concerns about the forebay monitors. As Agnes will be discussing later this afternoon, the Draft Order authorizes DEQ to approve changes in use or location of the forebay monitors, as contemplated by the TMDL.

Columbia River: Total Dissolved Gas

State of Oregon Department of Environmental Quality

- **Informational Update**
  - 2006 Total Dissolved Gas Waiver Requirements

- **Action Item**
  - Request for a Renewal to the Total Dissolved Gas Waiver

EQC Meeting June 21, 2007
Agenda Item I
Lauri Aunan, Gene Foster, Agnes Lut

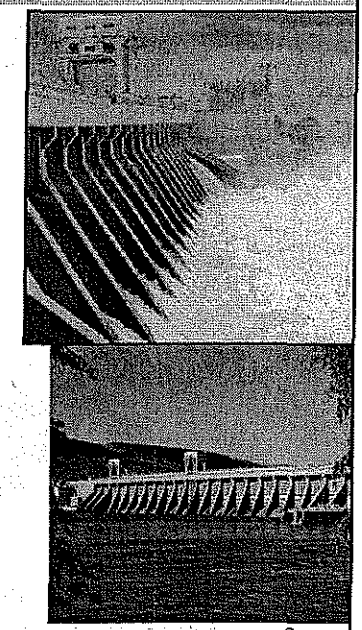
1

What is Total Dissolved Gas?

- Air is trapped in water that spills over a dam.

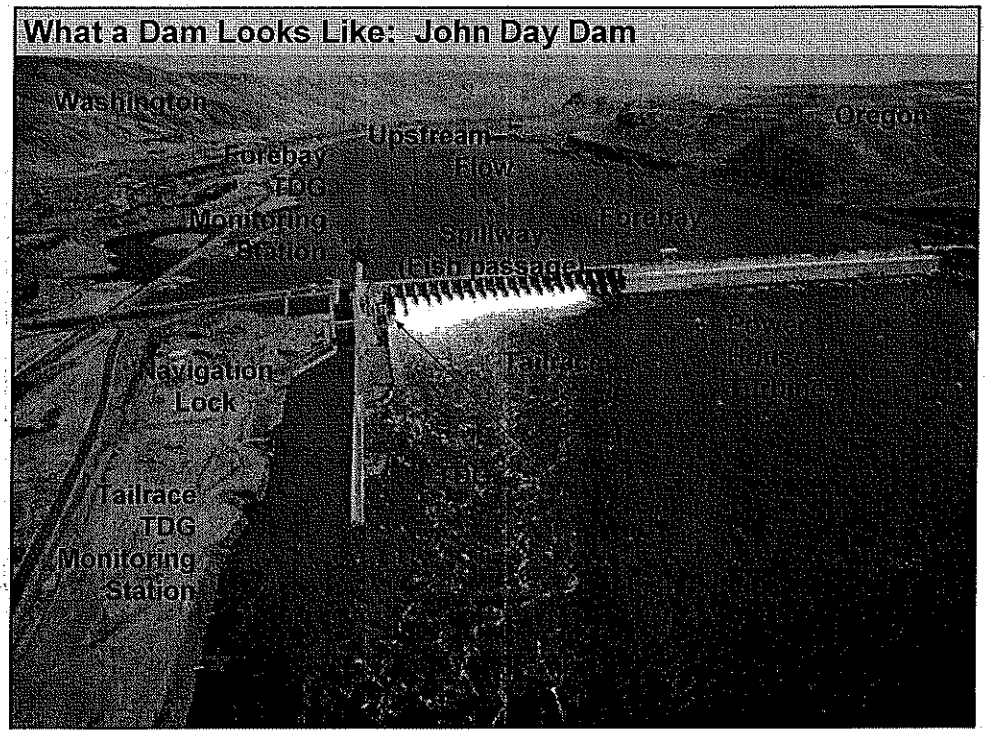
- The air is plunged under the water surface where the water pressure dissolves both the nitrogen and the oxygen into the water.

- Total dissolved gas is measured as the percentage of gas in excess of the saturation.



2

What a Dam Looks Like: John Day Dam



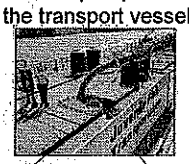
Fish Migration

•In order to survive, anadromous juvenile salmonid fish must be able to migrate downstream past the Columbia River Dams

Migration Options:

•Spill way passage with total dissolved gas limits, mortality rate of 0% to 4%
•Turbine passage, mortality rate of 8% and 32%
•Barge or truck transport, mortality unknown

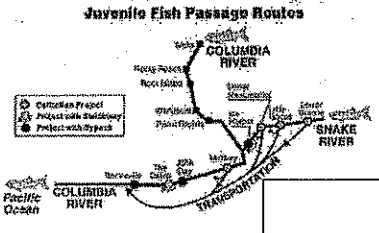
Fish are pumped into the transport vessel



River Barge

Truck

Columbia/Snake River System
Juvenile Fish Passage Routes



Fish Migration

•The NOAA National Marine Fisheries Service has identified spill as the safest, most effective tool available for fish passage past the dams.

•Water is actively spilled from dams on the Columbia River to allow for fish passage

•This is commonly referred to as voluntary spill and results in an increase of total dissolved gas

•In-voluntary spill is when dams exceed their hydraulic capacity (flooding) water is spilled and increases total dissolved gas.

•Increased total dissolved gas can cause Gas Bubble Trauma in fish

5

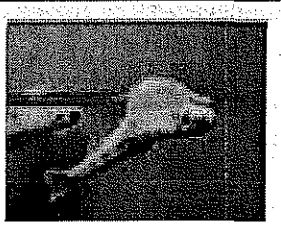
Gas Bubble Trauma

•Gas bubble trauma creates bubbles that may block the flow of blood and respiratory gas exchange by the fish.

•Bubbles form inside fish's bodies in the blood stream, body cavity, eyes, mouth and underneath the skin.

•Gas Bubble Trauma is a function of the level of total dissolved gas and length of exposure

•Oregon adopted the US Environmental Protection Agencies total dissolved gas standard to protect Beneficial Uses.



- •The total dissolved gas standard is 110% of saturation.
- •The total dissolved gas standard is 105% of saturation in hatchery-receiving waters and other waters of less than two feet in depth, the.

6

Total Dissolved Gas Waiver

The total dissolved gas waiver provides a balance between:

increased fish survivorship from spillway passage (Endangered Species Act)

and

increased gas bubble trauma from increased total dissolved gas levels due to spill. (Clean Water Act)

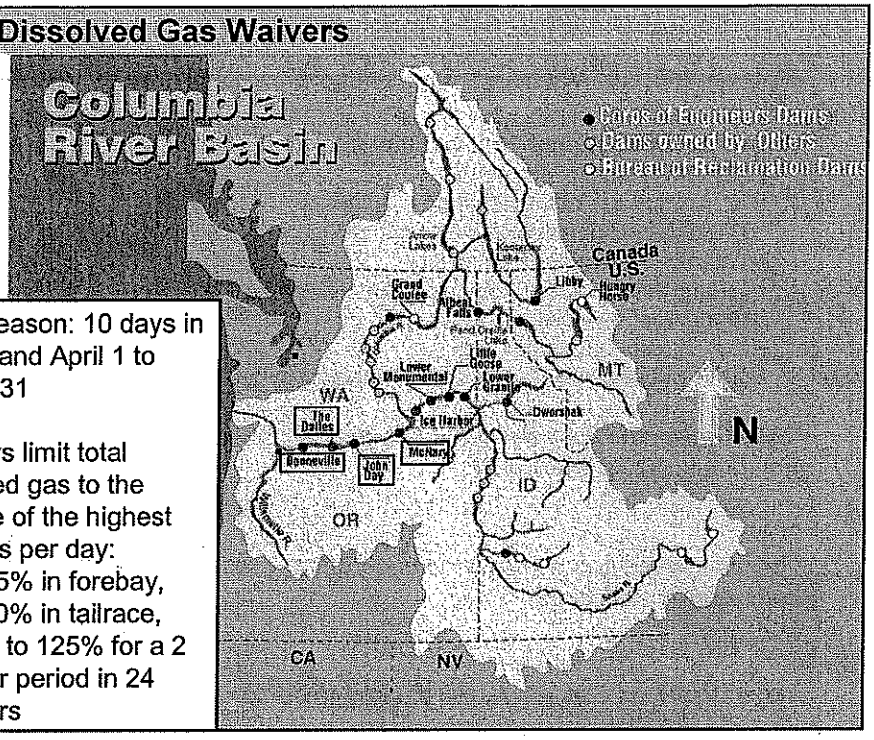
7

Total Dissolved Gas Waiver History

- In 1994, the EQC issued the first Total Dissolved Gas standard Waivers
- Waivers allow voluntary spill for fish passage without violating the Clean Water Act.
- The EQC has historically granted waivers of 120% in the tailrace and 115% in the forebay because of the low incidence of gas bubble trauma and the effectiveness of voluntary spill for fish passage.
- In 2003 the EQC issued the Army Corps of Engineers a waiver for the period from April 1 to August 31
- In 2004 the EQC issued the US Fish and Wildlife Service a waiver for a 10 day period in March
- The current multi-year waivers expire August 31, 2007

8

Total Dissolved Gas Waivers



- Spill Season: 10 days in March, and April 1 to August 31
- Waivers limit total dissolved gas to the average of the highest 12 hours per day:
  - 115% in forebay,
  - 120% in tailrace,
  - Up to 125% for a 2 hour period in 24 hours

Total Dissolved Gas Waiver Requirements

- Waivers require <u>monitoring</u> during the spill season
  - <u>Physical</u> monitoring in-river total dissolved gas
    - Hourly monitoring in the forebay and tailrace at each dam
    - Provide written notice to the Department within 24 hours of any waiver violations, and include actions to reduce total dissolved gas
  - <u>Biological</u> monitoring gas bubble trauma in fish
    - If 15% of juvenile salmonids show significant signs of gas bubble trauma, the Director will terminate the modification

- Provide an <u>annual written report</u> to the Department on the previous years monitoring results

- The EQC reserves the right to terminate or modify the waiver at any time

- Provide an update on the 2002 Total Dissolved Gas Total Maximum Daily Load <u>(TMDL) implementation</u> activities

10

2002 Lower Columbia River Total Dissolved Gas TMDL

- Bi-state TMDL by Washington and Oregon, and approved by US EPA
- Multi-year TMDL completed with the cooperation of:
  - US Army Corps of Engineers
  - NOAA National Marine Fisheries Service
  - U.S. Environmental Protection Agency
  - Western Governor's Association
  - Columbia River Inter-Tribal Fish Commission
  - Bonneville Power Administration
  - U.S. Bureau of Reclamation
  - Grant County Public Utility Commission
- TMDL developed to meet the water quality criteria of 110% during voluntary and in-voluntary spill periods
- Total dissolved gas waiver is considered an interim solution to meeting water quality standards
- Total Dissolved Gas waiver is required to be consistent with the TMDL

2002 Lower Columbia River Total Dissolved Gas TMDL

- Water quality criteria of 110% will be met through operational and structural modifications at each of the lower four dams
- Implementation will occur in two phases, short term (2002 – 2010) and long term (2010 – 2020)
- Implementation plan incorporates actions described and analyzed by National Marine Fisheries and US Army Corps of Engineers
- Short term implementation requires both forebay (115%) and tailrace (120%) monitors to be used during waiver period, and calls for operational changes to reduce total dissolved gas and meet fish passage goals
- Long term implementation begins in 2010, requires tailrace monitors to be used during the waiver period at specific locations, and structural changes need to occur to meet load allocations
- Adaptive Management will begin no later than January 1, 2011 and will review the status of implementation of the TMDL

2006 *Physical* Monitoring Results
Current Total Dissolved Gas Waiver Reporting Requirement

- Low frequency of exceedance of total dissolved gas waiver limits
- 36 exceedances of the 115% and 120% waiver limits due to fish passage voluntary spill, out of 1296 possible exceedances
- The highest voluntary spill Forebay total dissolved gas level was120%, the waiver limit is 115%
- The highest voluntary spill Tailrace total dissolved gas level was 122%, the waiver limit is 120%

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2006 *Biological* Monitoring Results
Current Total Dissolved Gas Waiver Reporting Requirement

- Low incidence of gas bubble trauma observed in fish

U.S. Fish and Wildlife Services (March 3 to March 7)

- No biological monitoring occurred because total dissolved gas levels did not exceed the 110% state criterion at the Bonneville Dam and Camas/Washougal stations (actual 104%)
- 90% of 7.35 million Spring Creek Hatchery Chinook were passed through Bonneville Dam

U.S. Army Corps of Engineers (April 10 to August 31)

- Collected 7,460 juvenile chinook and steelhead from McNary and Bonneville dams
- 36 fish (0.5%) found with minor gas bubble trauma at McNary Dam

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2006 Total Dissolved Gas Waiver Results

- The total dissolved gas waivers require that the U.S. Army Corps of Engineers report on their progress toward implementing the TMDL
- Operational and structural changes at the dams are currently being evaluated and, if warranted, implemented
- Implementation occurs on a per dam basis, as Congressional funding allows
- U.S. Army Corps of Engineers will report on what is being implemented

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Total Dissolved Gas Waiver Request

- U.S. Army Corps of Engineers and U.S. Fish and Wildlife Service waivers expire at midnight August 31, 2007
- The Department requested that the Federal Government submit one waiver request in 2007, if waiver still needed

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Joint Federal Government

Total Dissolved Gas Waiver Request submitted to the Department on November 20, 2006

- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife
- NOAA National Marine Fisheries Service

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David Ponganis, U.S. Army Corps of Engineers
Mark Bagdovitz, U.S. Fish & Wildlife Service
Mark Schneider and Ritchie Graves, NOAA Fisheries

U.S. Army Corps of Engineers Remarks: Total Dissolved Gas Waiver Request

State of Oregon
Environmental Quality Commissioners' Meeting
June 21, 2007

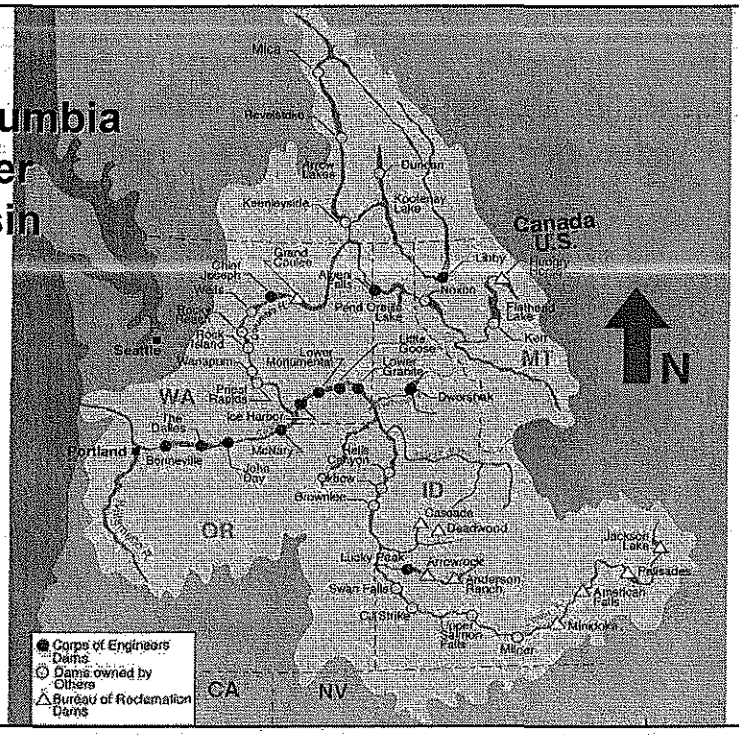
18

Presentation Topics

- Background
- Spill Operations
- Status of ESA Biological Assessment and Biological Opinion

19

Columbia River Basin



20

2002 TMDL & 2004 BiOp

Total Maximum Daily Load (TMDL)
for
Lower Columbia River
Total Dissolved Gas

September 2002

Prepared jointly by the
Oregon Department of Environmental Quality
and the
Washington State Department of Ecology

Washington State Department of Ecology

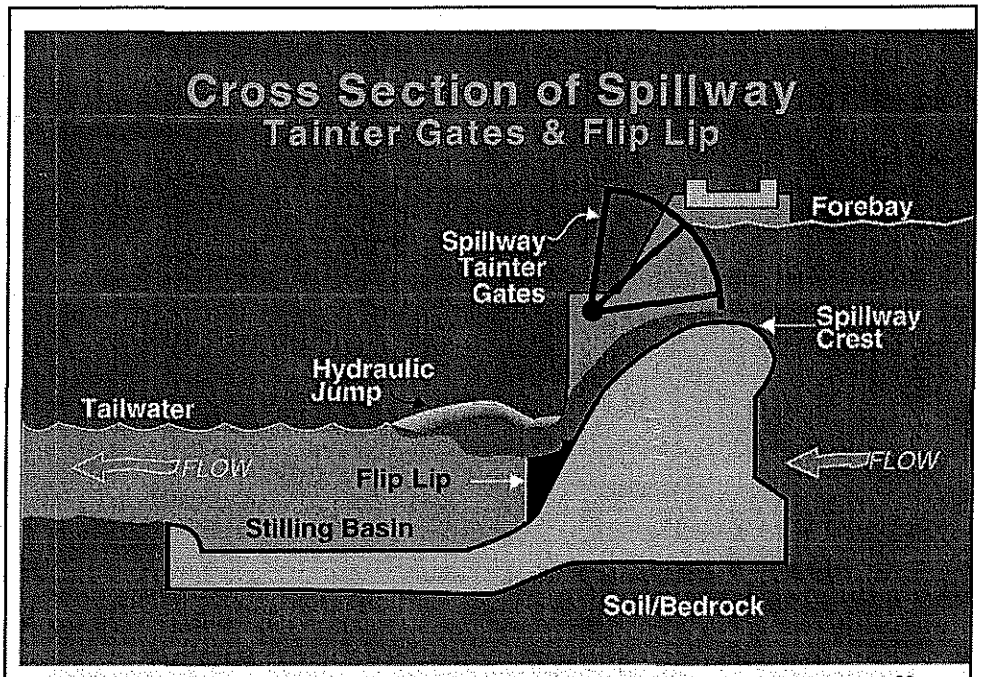
DEQ
State of Oregon
Department of
Environmental
Quality

Endangered Species Act
Section 7(a)(2) Consultation

Endangered Species Act – Section 7 Consultation
Biological Opinion

Consultation on Remand for Operation of the Columbia River Power System
and 19 Bureau of Reclamation Projects in the Columbia Basin
(Revised and reissued pursuant to court order,
NWF v. NMFS, Civ. No. CV 01-640-RE (D. Oregon))

Action Agencies:	U.S. Army Corps of Engineers Bonneville Power Administration U.S. Bureau of Reclamation
Consultation Conducted by:	NOAA's National Marine Fisheries Service (NOAA Fisheries) Northwest Region
NOAA Fisheries Log Number:	F/NWR/2004/02227
Date:	November 30, 2004

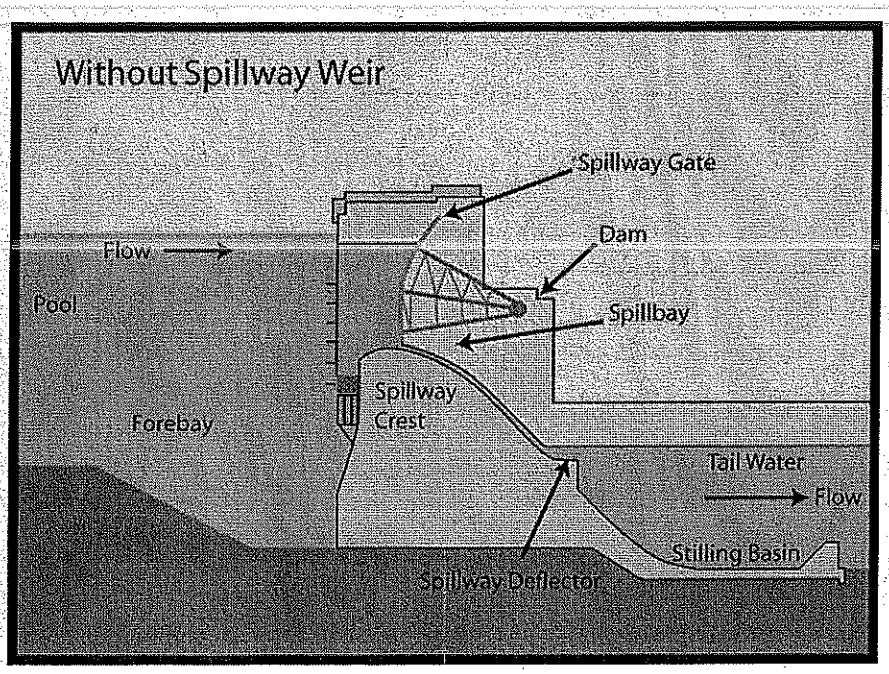


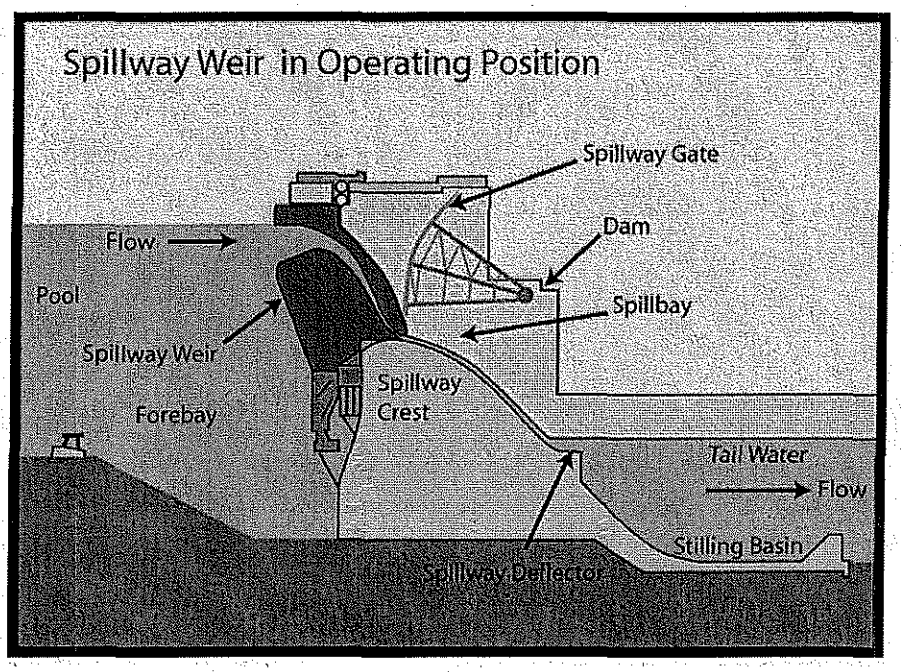
22

Advantages of Surface Passage

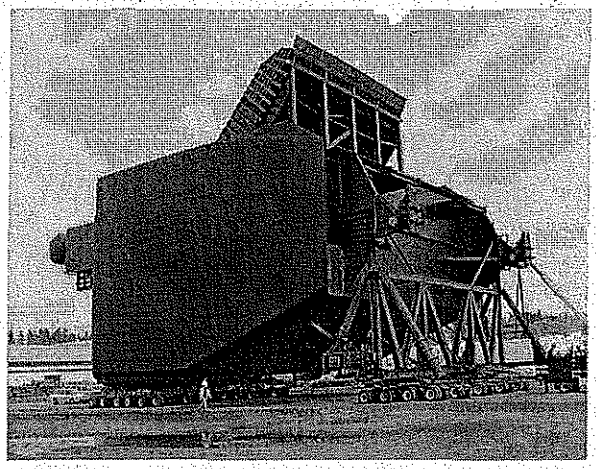
- Safe fish passage
- Reduced fish residence time (delay) at the dam
- Reduced gas super-saturation; improved water quality
- Provides for project purposes (adult fish passage, navigation, power, etc.)
- Maintain adequate spillway design capacity for major flood events

23



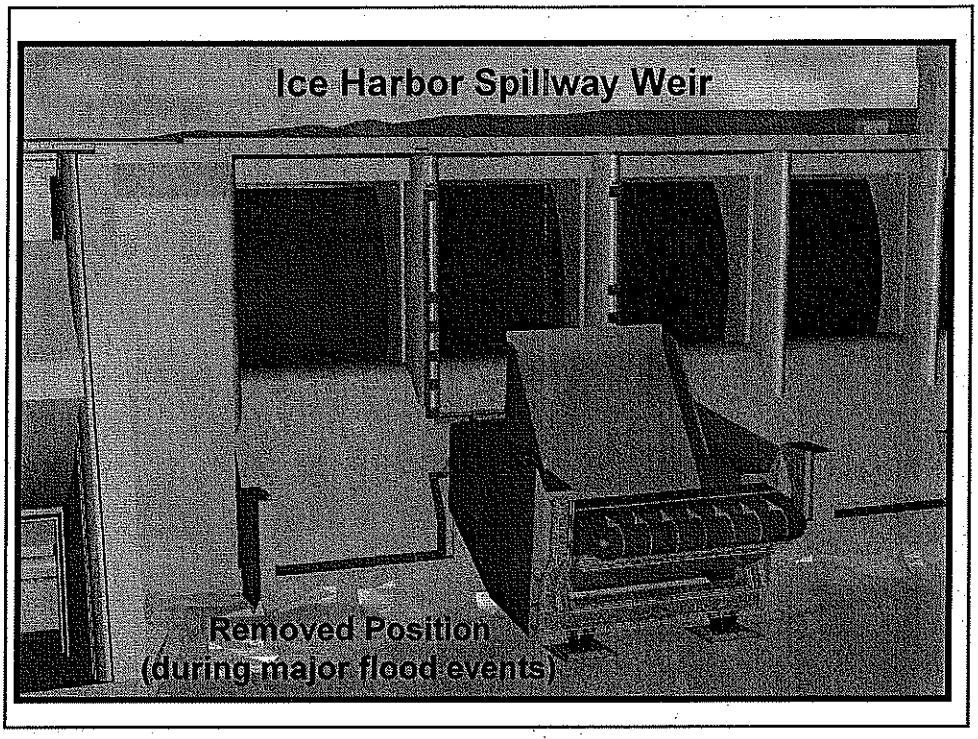


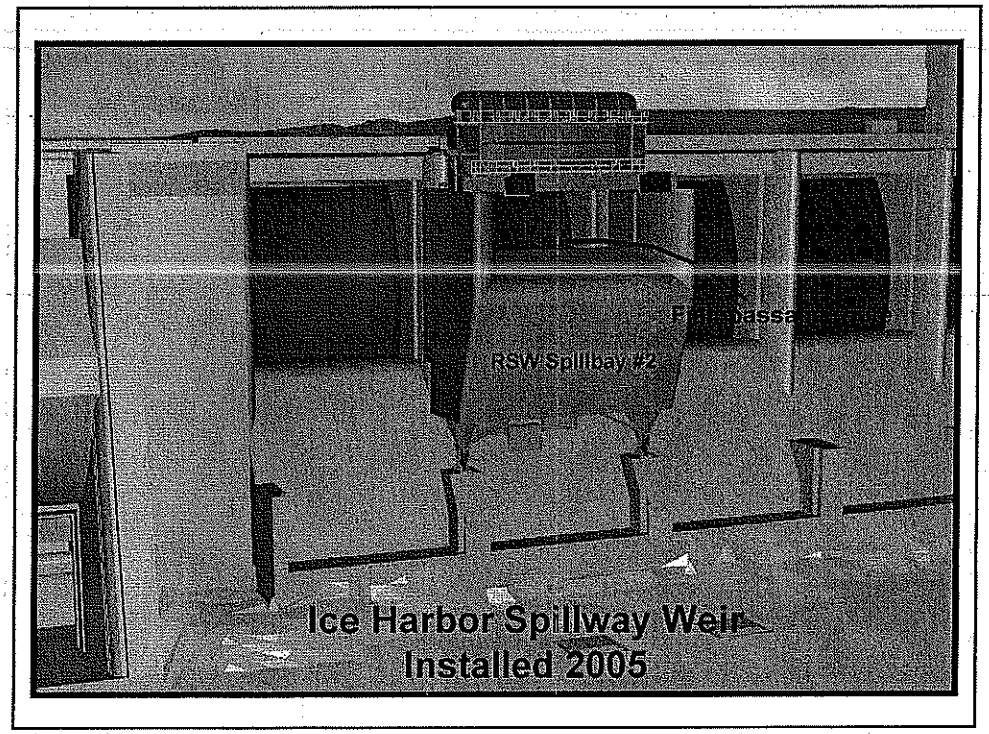
Ice Harbor RSW Construction

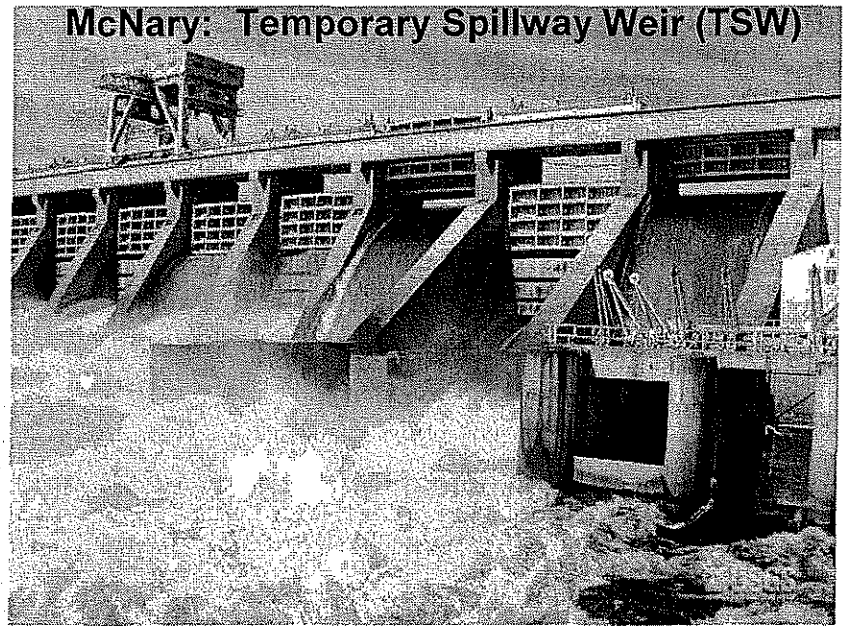


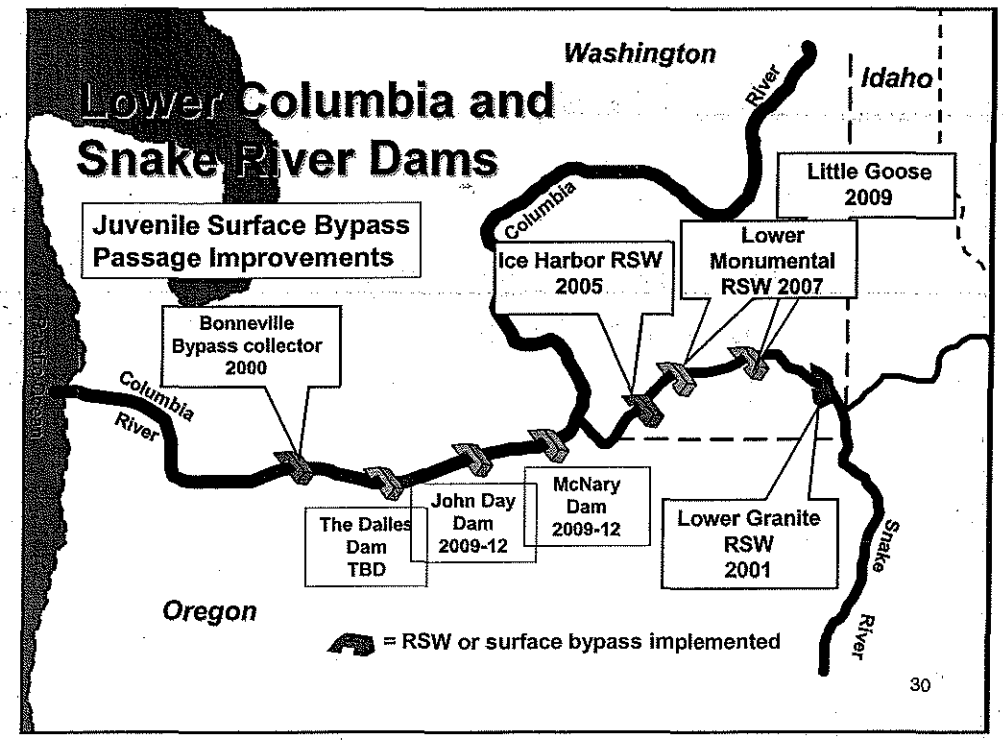
Thompson Metal Fabrication
Vancouver WA
February 12, 2005

26


Ice Harbor Spillway Weir
Removed Position
(during major flood events)


RSW Spillbay #2
Ice Harbor Spillway Weir
Installed 2005


McNary: Temporary Spillway Weir (TSW)
29


Lower Columbia and Snake River Dams
Juvenile Surface Bypass Passage Improvements
Washington
Idaho
Columbia River
Snake River
Oregon
Little Goose 2009
Lower Monumental RSW 2007
Ice Harbor RSW 2005
Bonneville Bypass collector 2000
The Dalles Dam TBD
John Day Dam 2009-12
McNary Dam 2009-12
Lower Granite RSW 2001
= RSW or surface bypass implemented
30

Federal TDG Waiver Proposal

- 120% TDG limit in each project tailrace
- 115% TDG limit in each project forebay
- Year-round waiver, to provide for:
  - Spill for fish passage, April through August
  - Spill tests outside the fish passage period
  - March spill for Spring Creek Hatchery releases
- 5 year duration
- Physical and biological monitoring
- End of year reporting

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ESA Consultation Update

- Biological Assessment
- Biological Opinion

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Total Dissolved Gas Waiver Process

- 30 day public notice issued on January 2, 2007
- Public comments were received from:
  1. Columbia River Inter-Tribal Fish Commission, Oregon Department of Fish and Wildlife, and Washington Department of Fish and Wildlife joint letter
  2. Northwest Sportfishing Industry Association
  3. American Rivers, Association of Northwest Steelheaders, Columbia Riverkeeper, Idaho Rivers United, Institute for Fisheries Resources, National Wildlife Federation, Native Fish Society, Northwest Sportfishing Industry Association, Pacific Coast Federation of Fishermens's Association, Salmon for All, Save Our Wild Salmon, Sierra Club, and Trout Unlimited joint letter
  4. Northwest River Partners
- **Each supported issuing the waiver and to continue biological monitoring**

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Total Dissolved Gas Waiver Public Comment

Commenters 1, 2 and 3 asked that EQC:

- Eliminate the forebay monitors
- Not use the forebay monitors until they are re-located to a well mixed location

The Department's response to public comment:

- The Department does not agree.
- The 2002 Bi-State TDG TMDL states that "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 will "continue through 2010", when implementation changes from short-term to long-term.
- The Department may approve changes in the location of forebay and tailrace monitors, use of forebay monitors, and may approve changes to the method for calculating total dissolved gas. Before approving any changes, the Department must consult with the Adaptive Management Team or the Federal Columbia River Power System Water Quality Team or both.

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Total Dissolved Gas Waiver Public Comment

Commenter 3 asked that EQC :

•Increase forebay monitor levels from 115% to 120%

The Department's response to public comment:

- The Department does not agree.
- The 2002 total dissolved gas TMDL short-term actions in Phase I (2002 – 2010) 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 of 115% in the forebay and 120% in the tailrace (Oregon waivers or Washington temporary special conditions).
- The 2000 Biological Opinion states that "spill will be reduced as necessary when the average TDG concentrations of the 12 highest hourly measurements per calendar day exceeds 115% of saturation at the forebay....120% of saturation at the tailrace....spill will be reduced when instantaneous TDG levels exceed 125% of saturation for any 2 hours during the 12 highest hourly measurement per calendar day..."

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Total Dissolved Gas Waiver Public Comment

Commenter 3 asked that EQC :

•Calculate total dissolved gas as the
average of the highest 12 consecutive hours in one day
versus
average of the highest 12 hours in one day
(requested current method)

The Department's response to public comment:

- The Department does not agree.
- 2000 Biological Opinion states that total dissolved gas should be measured as the average of the highest 12 hours in one day.

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Total Dissolved Gas Waiver Public Comment

Commenter 4 asked that EQC:

- Not allow a year-round waiver but rather only for the April to August voluntary fish passage spill period

The Department's response to public comment:

- The Department agrees that a year round waiver should not be granted.
- The waiver should apply to the historical voluntary spill period of April to August; Additionally, the Department also recommends allowing voluntary spill for the Spring Creek Hatchery fish passage during a 10-day period in March as in previous years
- US Fish and Wildlife historically have been historically granted a waiver for the March period by the EQC.
- If voluntary spill needs to occur outside the historical voluntary spill period for the purpose of biological or physical studies of spillway structures and prototype fish passage devices to test spill at operational levels, then ACOE will notify the Department and conduct physical and biological monitoring

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EQC Action

The EQC has two action alternatives:

1. Approve the request with or without the Department's recommended modifications. To approve the Department's recommendation, the EQC must make the four affirmative findings detailed in Attachment C, as specified in OAR 340-041-0104(3);

2. Decline to approve the proposal. In this case, the EQC could decide that alternative methods of fish migration are available, such as barge transportation, or releasing additional fish from the hatchery.

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DEQ Staff Recommendation on Waiver Request

DEQ recommends that the EQC grant this waiver as requested by the Federal Government with the following modifications:

- The Federal Government has requested a year-round waiver; however, the Department recommends a modified total dissolved gas standard for the Columbia River apply:
  a) during the fish passage voluntary spill 10-day period in March for the purpose of Spring Creek Hatchery, and the period from midnight on April 1 to midnight on August 31 for the purpose of fish passage; and
  b) during any period of voluntary spill that occurs outside the periods specified in above, if the spill is for the purpose of biological or physical studies of spillway structures and prototype fish passage devices to test spill at operational levels, and the U.S. Army Corps of Engineers has notified the Department in writing of such actions at least one week prior to the voluntary spill and conduct physical and biological monitoring during these periods of voluntary spill.

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DEQ Staff Recommendation on Waiver Request

DEQ recommends that the EQC grant this waiver as requested by the Federal Government with the following modifications, continued:

- The Department may approve changes in the location of forebay and tailrace monitors, use of forebay monitors, and may approve changes to the method for calculating total dissolved gas. Before approving any changes, the Department must consult with the Adaptive Management Team or the Federal Columbia River Power System Water Quality Team or both.

- Add an Adaptive Management Component as specified in the 2002 Lower Columbia River Total Dissolved Gas Total Maximum Daily Load (TMDL).

- The process for reviewing the implementation status of the 2002 Lower Columbia River Total Dissolved Gas TMDL should begin as soon as possible.

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Columbia River: Total Dissolved Gas Waiver Request

EQC Action

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PNGC Power
Smart. Local. Connected.

Testimony of Tom Haymaker
Vice President, Power Supply
PNGC Power

Before the Oregon Environmental Quality Commission
June 21, 2007
Portland, Oregon

Madam Chairwoman, I am Tom Haymaker, Vice President of Power Supply of PNGC Power. I thank you for the opportunity to share my views on behalf of our member owners. PNGC Power is a cooperative of fifteen consumer-owned utilities that joined together thirty years ago to meet their power and transmission needs. Our member utilities serve customers in portions of seven western states, including nine utilities that serve over 100,000 accounts in the state of Oregon. We are committed to preserving the economic value of the Columbia River system. We also support cost effective, consensus-based recovery strategies for salmon and steelhead in the Columbia Basin.

- We support the U.S. Army Corps of Engineers' request for a waiver to manage total dissolved gas levels to 115% in the forebays and 120% in the tailraces at the four Lower Columbia River dams. We frequently criticize flow regimes that cost millions of dollars and provide little or no benefit to listed stocks. And, as the Commission knows, higher levels of Total Dissolved Gas (TDG) can harm all aquatic organisms, not just listed stocks. However, we support the Corps proposal in the interim.
- Also, we support maintaining the current TDG monitoring locations in the forebays, tailraces and below Bonneville Dam as currently configured. Any changes that move the TDG monitoring locations further away from the Hydro projects places aquatic resources at greater risk.
- Finally, we support the TDG waiver schedule of April through August, annually.

Thank you for this opportunity to speak on behalf of PNGC Power's member owners, and their customers.

Pacific Northwest Generating Cooperative
711 NE Halsey • Portland, OR 97232-1268
(503) 288-1234 • Fax (503) 288-2334 • www.pngcpower.com

Northwest RiverPartners

For salmon, our economy and quality of life

Northwest RiverPartners Comments
Armys Corps Proposed TDG Waiver
June 21, 2007

I'm Terry Flores, Director of Northwest RiverPartners a non-profit organization that promotes scientific-based salmon recovery efforts. My membership is broad both in terms of membership and geography with public and private utilities, large and small businesses, agriculture and port interests throughout the Northwest. We are very involved in salmon recovery efforts in the Northwest, including the litigation over federal hydrosystem operations, and the Northwest Power and Conservation Council's fish planning and program efforts, among other efforts.

We support your staff's recommendation to extend the Corps waiver for managing total dissolved gas (TDG) at the Federal Columbia River Power System (FCRPS) dams for an interim period of five more years. It allows for spill at the dams while affording some protection of salmon, steelhead and other aquatic species from potential adverse impacts such as Gas Bubble Disease (GBD). We believe it properly balances between resource protection and risk.

We specifically support the Corps of Engineers application for TDG levels to 115% in reservoir forebays and 120% in the tailraces below the dams.

You will hear today that modifications to the waiver should be made both in terms of allowing for higher TDG levels and changing of monitoring locations. Do not be swayed. The intent behind these requests is to provide for more spill at the federal dams as means to move juvenile fish downstream.

It is critical to remember that TDG levels are set to protect not only juvenile salmon and steelhead, but ALL aquatic organisms. The EQC's responsibility is to ensure that all resources are protected, in addition to anadromous fish.

It also is important to emphasize that the proposed levels of TDG in the Corps waiver are already a waiver and higher than the current federal water quality standards specifically set to protect aquatic species.

There is honest debate over the precise maximum level of elevated TDG that is protective of aquatic species. However, there is scientific agreement that higher levels of TDG equate to higher levels of risk for fish and other aquatic species.

We have a very recent example that illustrates the risks as identified in a June 8, 2007 Fish Passage Center memo. The memo documents a recent increasing trend in the observation of steelhead exhibiting signs of gas bubble trauma at the little Goose and Lower Monumental sampling sites. According to monitoring in the field, up to 48% of the ESA listed spring Chinook salmon and steelhead passing the Lower Monumental and Little Goose dams from the last week of May through early June appear to be suffering from gas bubble trauma.

This is occurring at TDG levels below those requested in the Army Corps waiver and simply reinforces the need for the EQC to approach this issue carefully.

RiverPartners also strongly supports maintaining reservoir forebay monitors at each dam in their current locations to ensure that TDG levels are monitored, and the system can be best managed to protect fish and other aquatic organisms. This includes the current monitor below Bonneville dam at Camas/Washougal. This monitor is currently not in the draft order and needs to be to ensure we have good data on TDG levels below Bonneville. After all, there are fish and other resources below the dams too.

The TDG monitors in the dam tailraces and forebays, and those below Bonneville Dam, provide an appropriate check on the level and persistence of dissolved gas. The combination of tailrace and forebay monitors provides a more complete picture of what TDG levels are occurring and whether dissolved gas levels are abated – or not – through the system.

The EQC should reject any proposals calling for removal of any monitors. To do so, would be to be "flying blind" on the impacts of TDG on fish and other aquatic species. Monitoring provides important scientific data that is needed to protect aquatic species and to improve decision-making on system operations.

We also support maintaining the current TDG waiver schedule, limited to the fish passage season, of April through August. There is a separate process already in place to obtain waivers outside of the fish passage season, if necessary, to accommodate research efforts – a "blanket", open schedule is simply not needed.

In closing, as mentioned, others believe the Corps waiver should be modified with a goal of increasing spill through the system. Spill is one tool to move fish downstream of dams, but is often not the most effective one, compared to existing bypass systems, fish transportation around the dams, Removable Spillway Weirs (RSWs) and Temporary Spillway Wiers (TSWs) that are already installed or being installed at the dams.

And spill can kill fish and other aquatic species even at levels well below those requested in the waiver, as I've described. So, do not be swayed. As the Commission responsible for protecting these resources, the Corps waiver represents the proper balance between resource protection and risk.

NWRP commends the Oregon DEQ staff for their hard work. We urge the EQC to adopt the Corps proposed waiver with the exception of spill outside the fish passage season and to work closely with the state of Washington on this most important issue.

Thank you for this opportunity to comment. We stand ready to provide you with further information or answer questions.

FISH PASSAGE CENTER

1827 NE 44th Ave., Suite 240, Portland, OR 97213
Phone: (503) 230-4099 Fax: (503) 230-7559
http://www.fpc.org/
e-mail us at fpcstaff@fpc.org

MEMORANDUM

TO: Agnes Lut, OR-DEQ
Chris Maynard, WA DOE
Technical Management Team Members

FROM: Paul Wagner
FPAC Chairperson

DATE: June 8, 2007

RE: Incidence of GBT in Juvenile Snake River Steelhead

It has been brought to the attention of the Salmon Mangers that there has been a recent increasing trend in the observation of steelhead exhibiting signs of gas bubble trauma at the Little Goose and Lower Monumental sampling sites. The attached memo contains the technical information explaining the observations.

The information was discussed today by the Fish Passage Advisory Committee. The FPAC recommendation was to maintain the spill levels at these two projects and to continue to closely monitor the juvenile steelhead and fall Chinook. The basis of this recommendation was the decreasing numbers of steelhead, the increasing numbers of subyearling migrants, and the fact that the severity of GBT signs is still below that which would warrant a change in spill operations. The passage season for steelhead is almost over. We will advise you if any additional action needs to take place based on the monitoring information.

FISH PASSAGE CENTER

1827 NE 44th Ave., Suite 240, Portland, OR 97213
Phone: (503) 230-4099 Fax: (503) 230-7559
http://www.fpc.org/
e-mail us at fpcstaff@fpc.org

MEMORANDUM

TO: The Files

FROM: Margaret Filardo and Jerry McCann

DATE: June 8, 2007

RE: Steelhead and GBT at Little Goose and Lower Monumental dams

Data from GBT exams has shown a high incidence of GBT in late migrating steelhead at both Little Goose and Lower Monumental dams. Sample sizes at Little Goose Dam have met the sample protocol while at Lower Monumental Dam they have been below sample size criteria. Although only 66 fish were examined on June 4, there were 12 steelhead with fin signs; a total of 18% fin signs. No severe signs were observed, but several fish had bubbles in more than one fin. There was also a relatively high incidence of signs recorded the following day, June 5 at Little Goose Dam.

Table 1. Summary of GBT signs at Little Goose and Lower Monumental in the past two days sampling.

Site and Date	Number Examined	Number with GBT	Number with Fin GBT	% Fin GBT	Fin Rank 1	Fin Rank 2
Little Goose						
05/29/07 Ch1 + St	100	8	8	**8.0%**	8	0
06/05/07 Ch1 + St	100	14	14	**14.0%**	13	1
06/08/07 Ch1 + St	101	37	37	**36.6%**	29	8
Lower Monumental						
05/28/07 Ch1+ St	100	5	5	**5.0%**	5	0
06/04/07 Ch1+ St	66	13	12	**18.2%**	11	1
06/07/07 Ch1+St	22	5	5	**22.7%**	5	0

All the signs were in steelhead, and with only a few Chinook examined. It should be noted that we typically see an increase in signs in steelhead as the season progresses, typically increasing to 10% incidence or less by this time of the season. And also, steelhead numbers are declining while subyearling Chinook indices are increasing.

Because of our concern for the steelhead migrants, and for the subyearling migrants, who are beginning to increase in their numbers, SMP crews were requested to conduct additional GBT monitoring this week at both sites. The result of that monitoring is incorporated into the table above. The high number of Lyons Ferry fish and the dwindling numbers of steelhead at the Lower Monumental site resulted in a sample of only 22 fish. The levels of GBT have increased in the observed fish. Few subyearling migrants were sampled; however, those that were observed showed no signs of GBT.

TDG has not exceeded waiver criteria, and for the most part has been well below criteria at these projects. It is unlikely that under normal migration conditions we would be observing these levels of GBT at these levels of TDG.

Date	LWG	LGNW	LGSA	LGSW	LMNA	LMNW
6/1/2007	105	111.3	113	111.2	114.5	118.7
6/2/2007	105.1	114.1	114	113.4	115.2	114.9
6/3/2007	105.1	112.7	113.8	113.6	115.2	114.8
6/4/2007	105	114	113	113.8	114.3	114.7
6/5/2007	104.6	112.9	112.8	113.6	113.8	114
6/6/2007	103.9	114.7	111.4	112.7	111.9	114.3
6/7/2007	101.5	113.7	108.7	112.2	109	117

Maule et al. (1997) observed that incidence and severity is a function of TDG level and exposure time. It seems likely that what we are observing is the result of the longer travel times observed for the late migrating steelhead. The present flows are in the mid 50s at these projects and the travel time estimates observed between Lower Granite to Little Goose Dam are about 4.9 days, which is a longer travel time than was observed in 2001 during the same time period. The average travel time between Little Goose and Lower Monumental is 6.5 to 7.5 days. It is likely that the long travel time is causing an increased exposure time and causing the fish to show the signs of GBT. There are also other factors that may be contributing to these long travel times. In addition to flow, there could be a delay in the forebays of the projects that might be a function of the present spill patterns, or spill amounts that are being provided at both Little Goose and Lower Monumental dams. Neither of these projects have RSWs in place.

There is a dilemma as to what to do regarding spill at these two Snake River projects. The late migrating steelhead are the last to arrive and represent a small portion of the run. The criteria established in the COE's waiver have not been exceeded. Decreasing spill would decrease the TDG in-river. However, if spill is decreased it would increase the residence time and take even more time for the steelhead to get through the river. In addition, the subyearling

migration is picking up and given that there is little data regarding the effects of transportation on these fish, it would not be appropriate to increase collection of these fish for transportation and to a have a migration corridor with decreased spill for those fish that remain in-river. Based on 10-year average 98% of steelhead have passed Lower Granite by June 5. In contrast, 10% of subyearling Chinook have passed by June 8, and an additional 20% will have passed in the next two weeks; consistent with historic peak passage timing for subyearlings in the Snake River occurring over the next 6 to 8 weeks. The potential for project passage delay in the forebay may be exacerbated by the existing spill volumes and the remedy for the long travel times may be to actually increase spill to promote project passage.

Corps of Engineers Anadromous Fish Evaluation Program

Briefing - October, 2005

Yearling Chinook Salmon

Route Specific Survival Model Probabilities

	Juvenile Bypass System	Powerhouse 2 (unguided)	Corner Collector	Spillway	Dam Survival
2004	97.0% (94.3, 99.5)	95.1% (92.9, 97.2)	101.6% (99.9, 100.3)	91.0% (88.8, 93.1)	95.1 (93.6, 96.6
2005	100.8% (99.2,102.3)	96.6% (94.7,98.3)	102.1% (100.9,103.3)	93.0% (91.3, 94.8)	96.6% (95.4,97.9)

USGS

PNUCC

Bringing the *Power* of good ideas *Together.*

June 21, 2007

Lynn Hampton, Chairwoman
Environmental Quality Commission
811 Sixth Avenue
Portland, OR 97204

Dear Madam Chairwoman,

Thank you for this opportunity to provide PNUCC's perspective on the Corps of Engineers' request to renew the total dissolved gas water quality standard waiver on the Columbia River. PNUCC is an association of electric utilities and industry that purchase power from the federal power system and we have been attentive to the debates over river operations for salmon for fifteen years. In that time we have learned a great deal about the complexity of the salmon life cycle and have come to appreciate the uncertainty about what helps and what harms salmon as they migrate through the river.

Our goal is to ensure that the region does what is best for salmon and we believe a continued waiver for the April through August time period is acceptable for now. Total dissolved gas levels up to 115% in the reservoir forebays and 120% in tailraces below the dams are appropriate until new surface bypass systems have been installed at each of the federal hydro projects. It is our understanding that once these new surface bypass systems are put in place, lower spill volumes provide the same or improved juvenile passage survival and total dissolved gas levels will be lower as a result of less voluntary spill.

You have heard from some a desire to increase dissolved gas limits in the Columbia River to allow more spill at dams. We are concerned about increasing gas levels in the river and encourage the Commission to maintain current limits as the Corps is requesting. The Department staff memo points out that salmon do show increased signs of gas bubble disease when total dissolved gas levels are higher and that NOAA Fisheries considers the current limits to be protective of listed salmon, and resident aquatic species.

In regard to monitoring and measuring gas levels, we agree with the Department staff recommendation that the Commission maintain the current forebay and tailrace monitoring sites including the Camas/Washougal gauge below Bonneville Dam. Moving and/or removing monitors and changing the metric for recording the total dissolved gas

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levels will result in inadvertent increases in total dissolved gas levels and spill amounts, prompting the same concerns.

Finally, PNUCC does not support waivers outside the April through August period. Specifically we do not agree with the Department staff recommendation for a waiver for 10 days in March at Bonneville Dam to address the Spring Creek Hatchery fish release. There are two reasons this does not make sense. First, the Corps has reported that the new surface bypass (corner collector) and juvenile bypass systems at Bonneville Dam are providing safe routes of passage for spring Chinook and steelhead without spill. And second, voluntary spill results in elevated levels of total dissolved gas that could impact chum salmon incubating below Bonneville Dam.

Thank you again for the opportunity to comment. The electric power industry is committed to working with you and other state and federal agencies to provide scientifically sound operations for salmon. We appreciate your time and effort to consider the Corps' requests and to assist the region in creating the best environment possible for Northwest salmon.

Sincerely,

Shauna McReynolds

Shauna McReynolds
Deputy Director

cc: PNUCC Board of Directors

Testimony of Ron Suppah, Chairman
Confederated Tribes of the Warm Springs Reservation of Oregon
before the
Oregon Environmental Quality Commission
June 21, 2007

Good Afternoon. My name is Ron Suppah. I am chairman of the tribal council for the Confederated Tribes of the Warm Springs Reservation. I am here today on behalf of my tribes and in support of the other tribes of the Columbia River Inter-Tribal Fish Commission. The other tribes of the Commission are the Yakama Nation, the Nez Perce Tribe and the Confederated Tribes of the Umatilla Indian Reservation.

These four tribes have rights reserved by treaties with the United States to take fish that pass our usual and accustomed fishing places. Further, through court cases, the tribes have secured a co-management role for salmon resources with the state and federal fishery agencies.

I appreciate this opportunity before the Oregon Environmental Quality Commission to comment on recent applications by the U.S. Army Corps of Engineers' and USFWS to modify Oregon's Water Quality Standard for total dissolved gas from 2008-2012. We are in general support of these waivers. They have been granted since about 1994 by the Commission and enable the dams to increase spill passage which is vital to protect migrating juvenile and adult salmon and other fish, such as Pacific Lamprey, through the dams of the Federal Columbia River Power System.

Spill is a cornerstone measure for the recovery of ESA listed and unlisted fish in the Columbia Basin that are the foundation of our tribes' treaty reserved resources. Spill is supported by sound science, including the Northwest Power and Conservation Council's Independent Scientific Advisory Group. It is supported by all of the state and federal fishery agencies. It is also supported by the EPA, the Washington Department of Ecology and the Oregon Department of Environmental Quality.

Moreover, these tule fall Chinook salmon are extremely important to tribal peoples. They provide for critical ceremonial, subsistence and commercial fisheries for tribal members that have very little. They are often preserved for winter food and they contribute to important cultural and religious ceremonies because so much of the salmon resource has disappeared from the river.

These salmon are the hope to the region to restore natural production of tule fall Chinook throughout the lower Columbia River. In *United States v. Oregon* fishery management planning, this tule stock will be used in the future to seed habitats in tributaries of the lower Columbia where salmon have been driven to near extinction by habitat degradation and other careless human activity.

In conclusion, we recommend that the Commission approve these applications. In addition, we ask the Commission to consider using the dam tailrace monitoring only to manage spill levels for fish passage. In the interim, the dam forebay monitoring should be suspended for spill management. This suspension should continue until the accuracy and reliability of that monitoring is verified and approved by the fishery managers and the state water quality agencies through the Adaptive Management Process described in the Lower Columbia Total Dissolved Gas TMDL.

Approving these waivers with these additional considerations will best protect the existing and designated beneficial use - the salmon. And it will afford the opportunity for tribal peoples to continue to exercise their cultural and religious practices that are a vital part of the treaties.

I thank you for the opportunity to address this critical issue.

STRUCTURAL AND OPERATIONAL CHANGES AT FCRPS DAMS TO IMPROVE FISH SURVIVAL

JUNE 19, 2007

UNITED STATES ARMY CORPS OF ENGINEERS
BONNEVILLE POWER ADMINISTRATION

STRUCTURAL AND OPERATIONAL CHANGES AT FCRPS DAMS TO IMPROVE FISH SURVIVAL

In reference to actions taken for fish protection at the FCRPS projects, Judge Marsh declared in 1994 "the situation literally cries out for a major overhaul." Since then, the Action Agencies made significant changes, including a number of improvements and additions to fish passage facilities, operational changes in flow, spill and the juvenile transportation program, and aggressive predator management.

Primarily through the Corps's Columbia River Fish Mitigation Project (CRFM), structural improvements at the dams have been added to improve fish passage resulting in significant survival improvements. Over $1 billion has been invested from the mid-1990's through 2006 in baseline research, development and testing of prototype improvements, and construction of new facilities and upgrades. The improvements in the physical facilities, along with improvements in the flow and spill programs, have delivered substantial improvements in both juvenile survival numbers and adult returns.

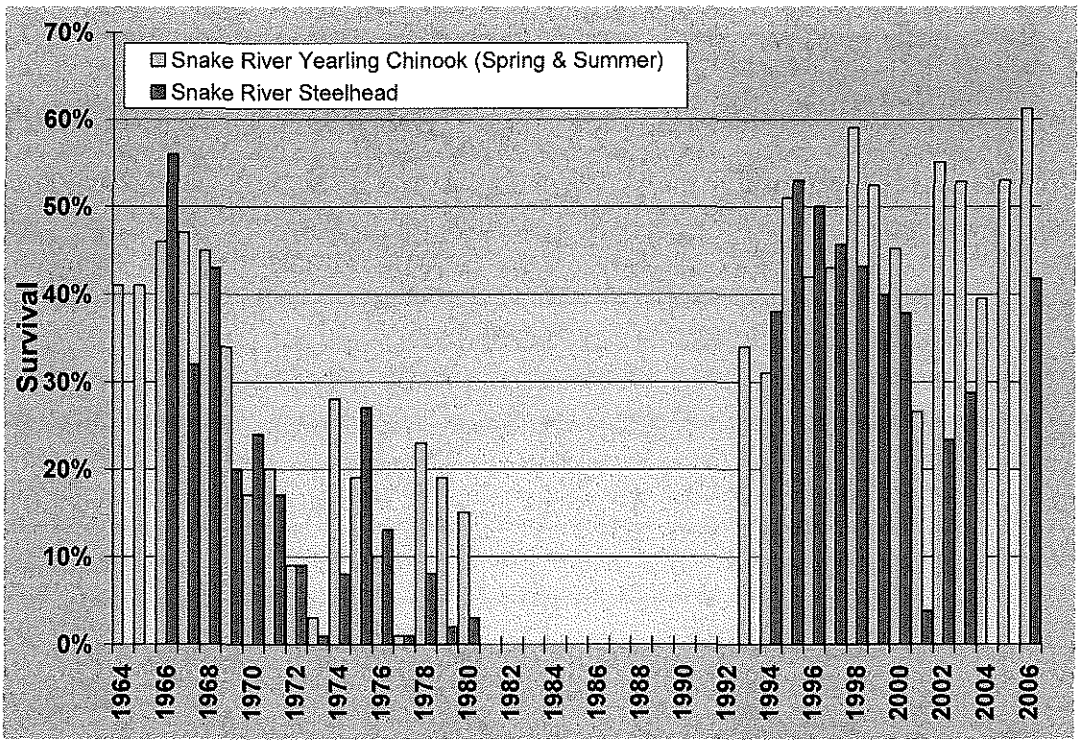


Figure A-1. Estimates of In-River Survival of Snake River Chinook Salmon and Steelhead from 1964 to 2006.[1]

[1] Data was not collected in some years for both species. Returns from 1964-1980 were obtained using a different methodology from the PIT tag based returns in 1993-2006. Trends within the two groups of data are accurate, but caution should be exercised when making direct comparisons between groups.

For instance, Figure A-1 above illustrates the changes in Snake River juvenile spring and summer Chinook salmon and steelhead in-river survivals during this period. Increases in juvenile survival will likely improve adult returns over the long term. Recent adult returns are shown below in Figure A-2.

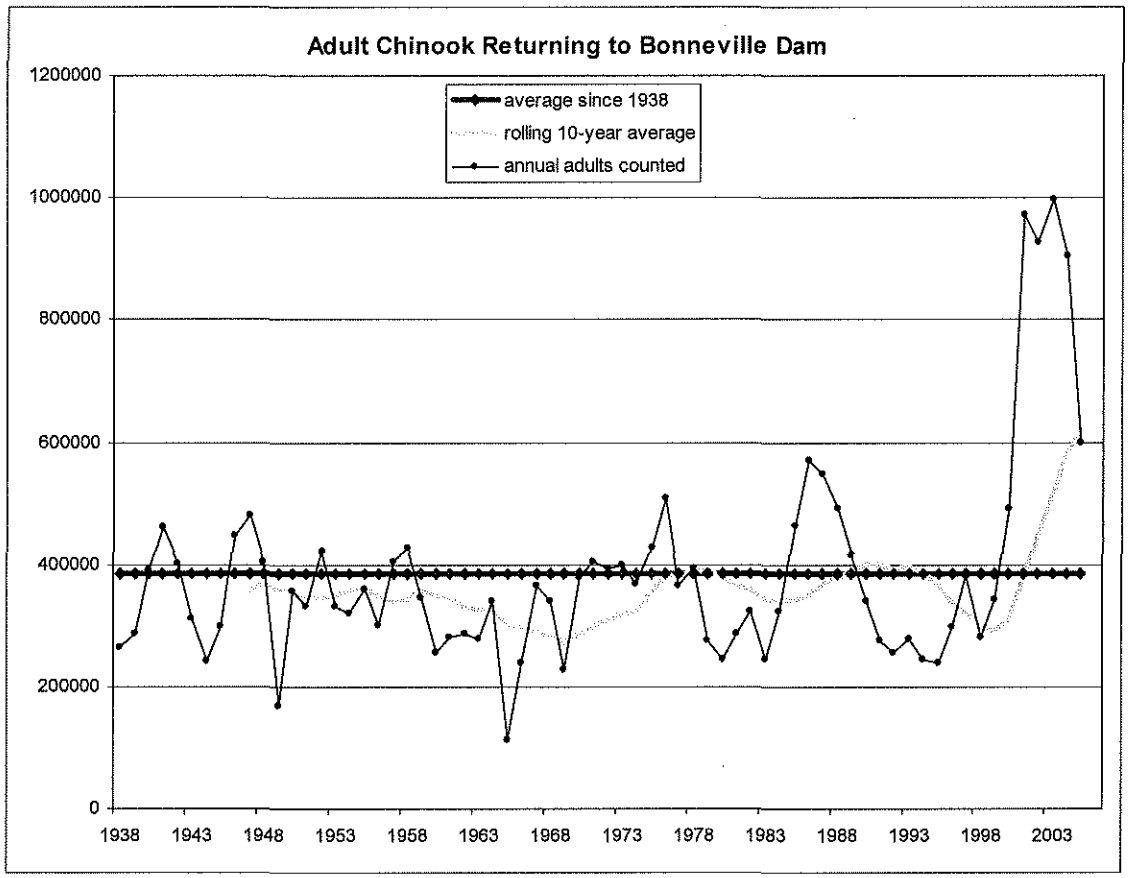


Figure A-2. Numbers of Adult Chinook Salmon Returning to Bonneville Dam, 1938 to 2005.

A. STRUCTURAL AND OPERATIONAL CHANGES FOR FISH PASSAGE AT MAINSTEM DAMS

Major modifications to dams and fish facilities for improving juvenile and adult salmon passage include:

- Addition of surface collectors or surface bypass systems, exemplified by the highly effective bypass collectors (Corner Collector) and flumes at Bonneville Dam, and the Removable Spillway Weirs (RSWs) at Lower Granite, and Ice Harbor dams

- Improvements to the existing juvenile fish guidance screens, bypass facilities and outfalls, transport collection and handling facilities, and state-of-the-art monitoring systems
- Installation of spillway flow deflectors on most spillbays at all projects, except The Dalles Dam[2], to reduce the harmful affects of total dissolved gas and increase spill passage of juvenile fish
- Improved adult fish ladders, auxiliary water supplies as well as more effective passive integrated transponder (PIT)-tag monitoring systems for both adults and juveniles, including the state-of-the-art facilities at Little Goose and Bonneville dams
- Developing and testing behavioral guidance structures (BGS) to influence the horizontal travel of juvenile fish toward bypass facilities at the dams
- Tailrace egress improvements such as the new "spill wall," in year two of testing at The Dalles Dam
- Powerhouse turbine unit operational priorities to enhance juvenile egress and adult passage.

A.1 Surface Collectors or Surface Bypass Systems

Observation of fish behavior led to the concept of providing surface routes to attract or "skim" the fish from the forebay of the dam into a "surface bypass" structure to improve passage efficiency and reduce forebay passage delays. With conventional passage systems, juvenile fish must dive or "sound" as deep as 50 feet to enter turbine intakes or conventional spillway openings. The Corps has designed and installed different surface collector systems at several dams.

One such surface bypass structure is the Corner Collector installed at Bonneville Dam in 2003 (Figure A-3). Other successful surface bypass systems, called Removable Spillway Weirs (RSWs), have been installed at Lower Granite and Ice Harbor dams in the lower Snake River.

[2] Flow deflectors have not been installed at The Dalles due to the shallow stilling basin.

Figure A-3. Fish Bypass Corner Collector at Bonneville Dam

A.1.1 Bonneville Dam Corner Collector

The Corner Collector at the Bonneville Dam second powerhouse (PH2) on the north shore of the river has proved to be very effective in attracting and safely moving juvenile fish past the project. It consists of an overflow weir adjacent to the powerhouse with a half mile open flume providing downstream reentry well below the second powerhouse tailrace. Thirteen percent of the juvenile fish approaching the dam pass through the Corner Collector, exiting into higher velocity water, which reduces predation by other fish downstream of the dam. A large antenna detects PIT-tagged fish as they pass by, transferring data to computers that record the origin of the fish and other data needed for scientific analysis. Corner Collector survival is virtually 100 percent.

The following discussion about modifications made at Bonneville Dam is presented to illustrate the significance of the juvenile survival improvements associated with these changes. Figure A-4 describes the survival of juvenile salmonids by route of passage in years 1995 to 1999, prior to installation of the Corner Collector and other major improvements.

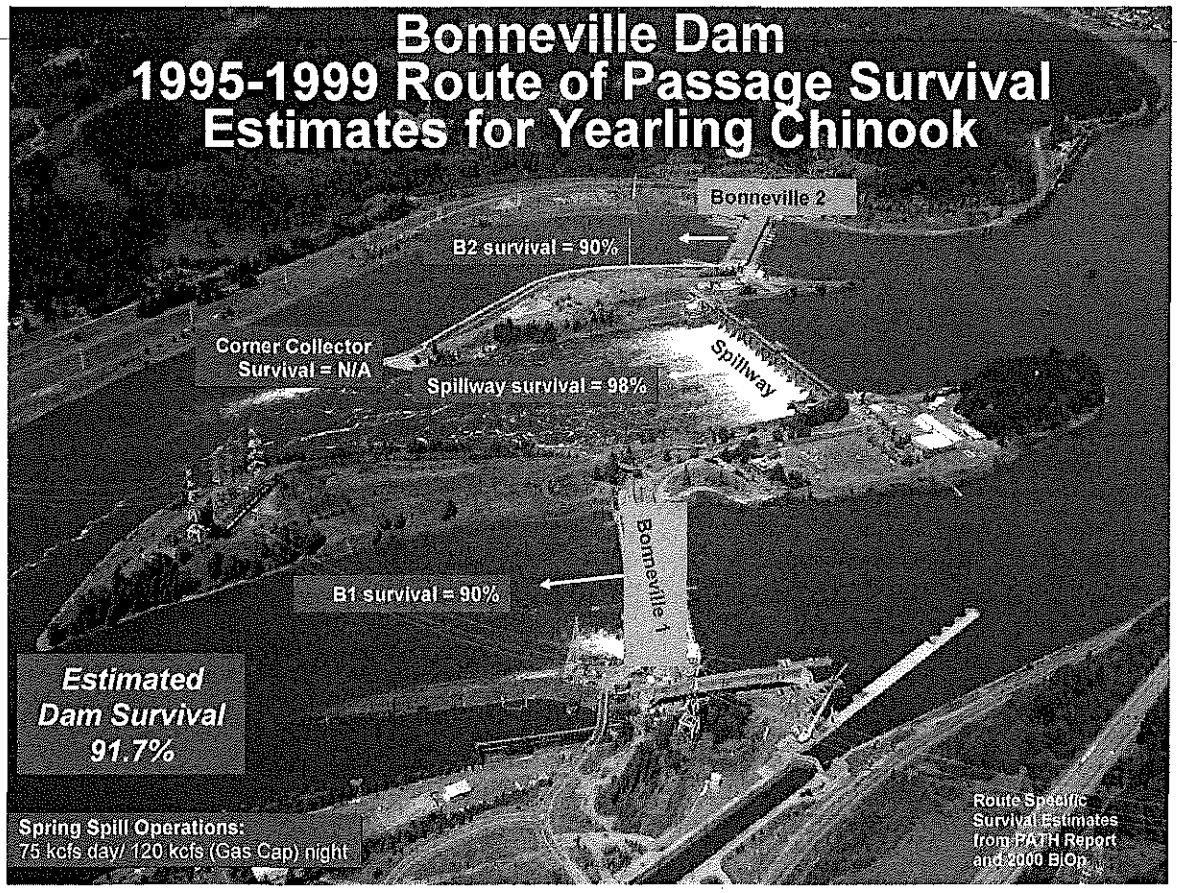


Figure A-4. Estimated dam survival rate at Bonneville Dam for yearling Chinook from 1995-1999. (Survival numbers depicted do not include improvements from the Corner Collector, which was not installed until 2004.)

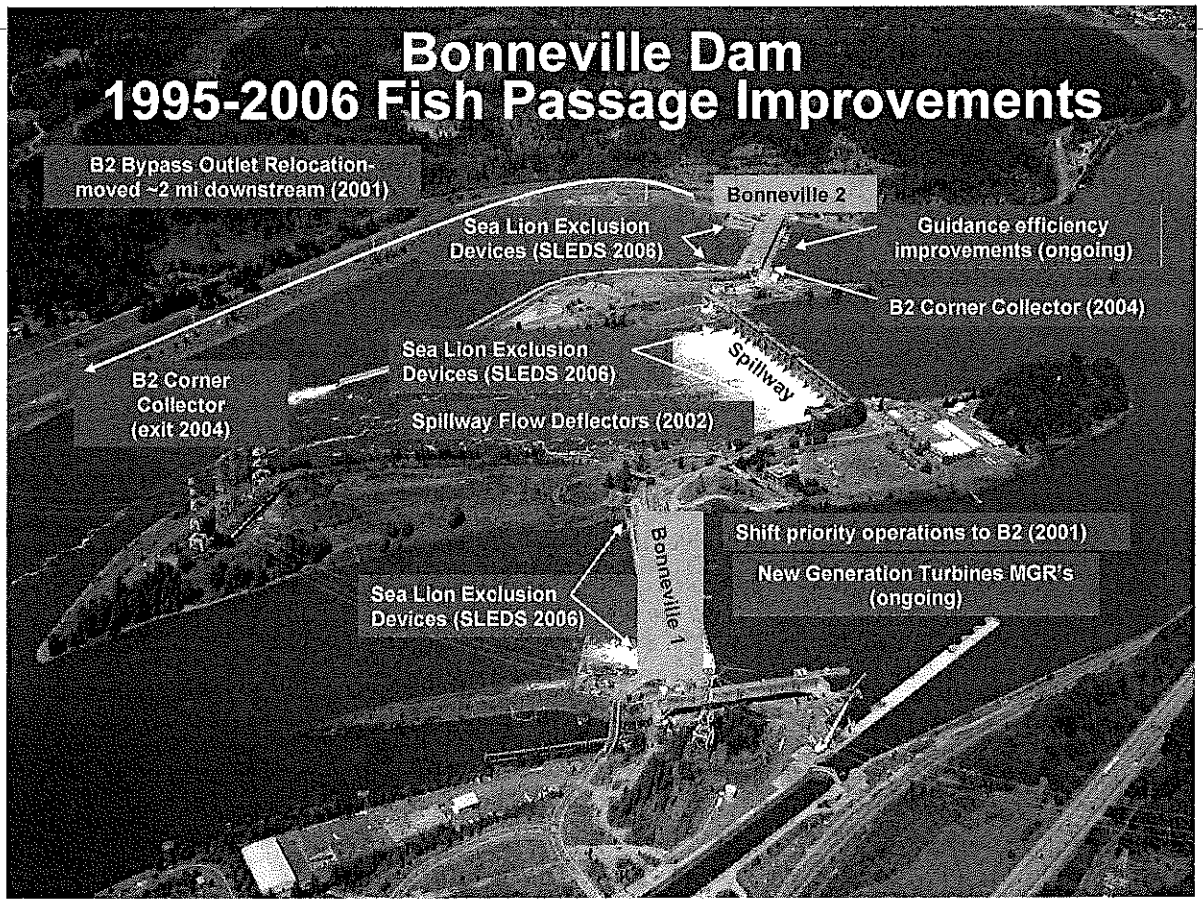


Figure A-5. Improvements at Bonneville Dam from 1995-2006.

The combined modifications identified in figure A-5 have improved survival of listed ESU's, as well as non-listed salmonid populations, passing Bonneville Dam. The primary actions that have contributed to these improvements include:

- Priority operation of Bonneville PH2. Increased juvenile survival as well as reduced adult fallback at the project
- Improvements to the Bonneville PH2 juvenile bypass system and outfall. The entire juvenile bypass system was rebuilt including modifications to the orifices, complete rebuild of the collection channel and dewatering facility, a two mile conveyance system, a new monitoring facility to ensure fish passage was safe, and a new outfall structure to release the fish below the dam in a high velocity area to minimize predation
- Addition of the Bonneville PH2 Corner Collector. Includes a surface collection system in the forebay, one half mile conveyance system, and an outfall. This structure was intended to provide a means for the fish to decrease forebay residence time, minimize stress through passage, and provide an outfall in a location to minimize predation
- Minimum Gap Runner installation at the Bonneville PH1. Complete replacement of the turbines to minimize gaps on the blades of main turbine units and redesign of the blades to decrease pressure across the blades. This reduced fish injury by 40% (from 2.5% to 1.4% of the fish being injured) and improved survival of turbine passed fish

- Remove fish screens and juvenile bypass system from Bonneville PH1
- Spillway structural and operational changes. With the addition of 5 flow deflectors, all spillbays have deflectors, with new spill patterns to move fish out of the basin. As illustrated by comparing Figures A-4 and A-6, this action may have decreased spillway survival. Evaluation of potential operational or structural modifications is underway to improve spillway survival
- Addition of sea lion excluder devices (SLEDS) at all entrances to the adult fishways. This action was taken to stop passage of sea lions into the adult fishways to reduce predation on salmonids and potential adult delay at the project

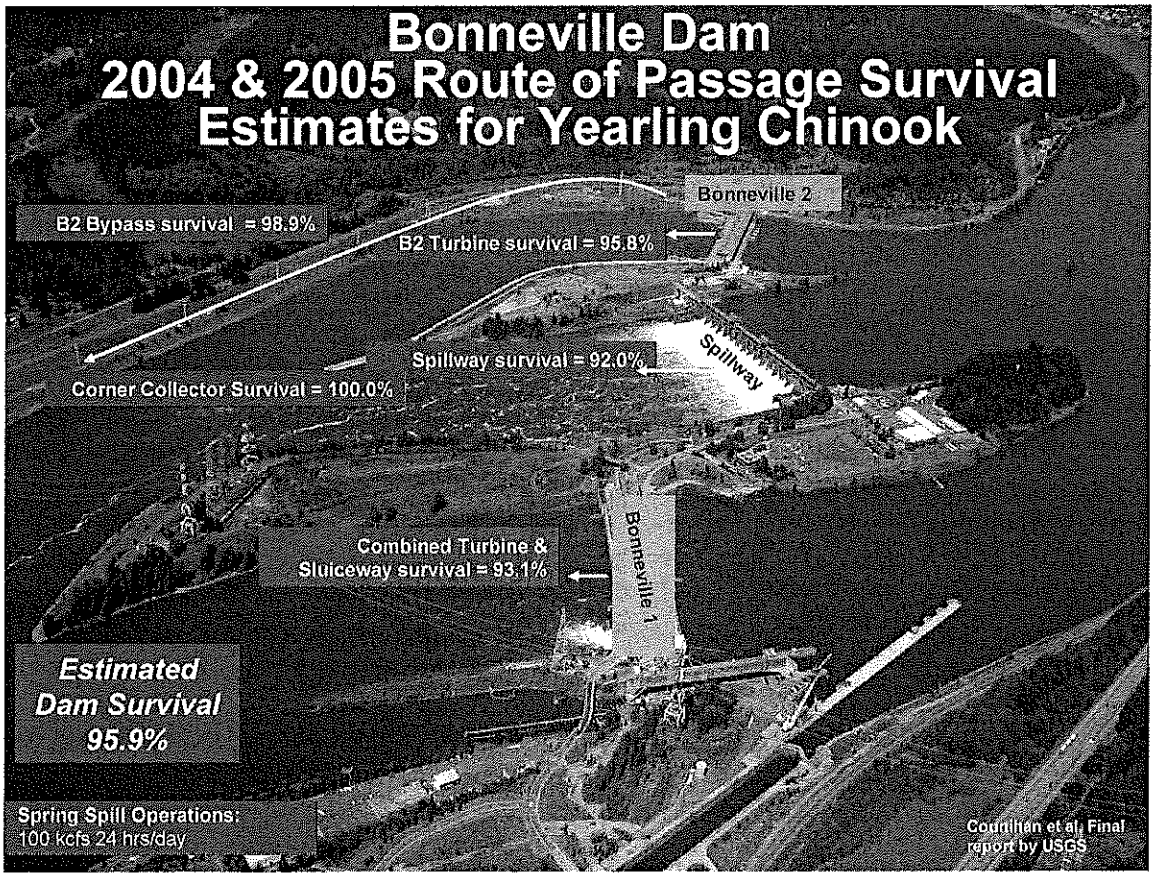


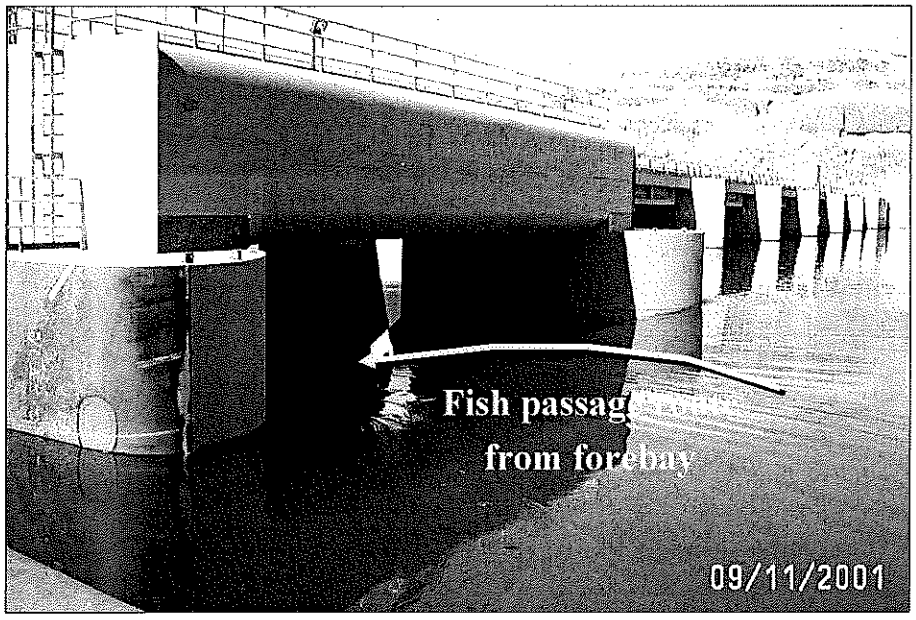
Figure A-6. Route specific dam survival estimates for yearling Chinook for 2004 and 2005.

Figure A-6 describes the changes in estimated dam survival from 91.7 to 95.9 percent for yearling Chinook as a result of modifications made at Bonneville Dam.

A.1.2 Removable Spillway Weirs (RSWs)

Another successful surface bypass system, called Removable Spillway Weirs (RSWs), installed at Lower Granite and Ice Harbor dams provide a surface passage route for juvenile fish (Figure A-7). RSW construction is underway for Lower Monumental Dam and under design for Little Goose Dam.

The massive, seven-story-high steel structures are bolted to the upstream faces of dams. Fish entering the device get a smoother, gentler ride over the spillway. Testing has shown that these "fish slides" decrease juvenile fish delay in the forebay and increase survival of juveniles as compared to other routes of passage.



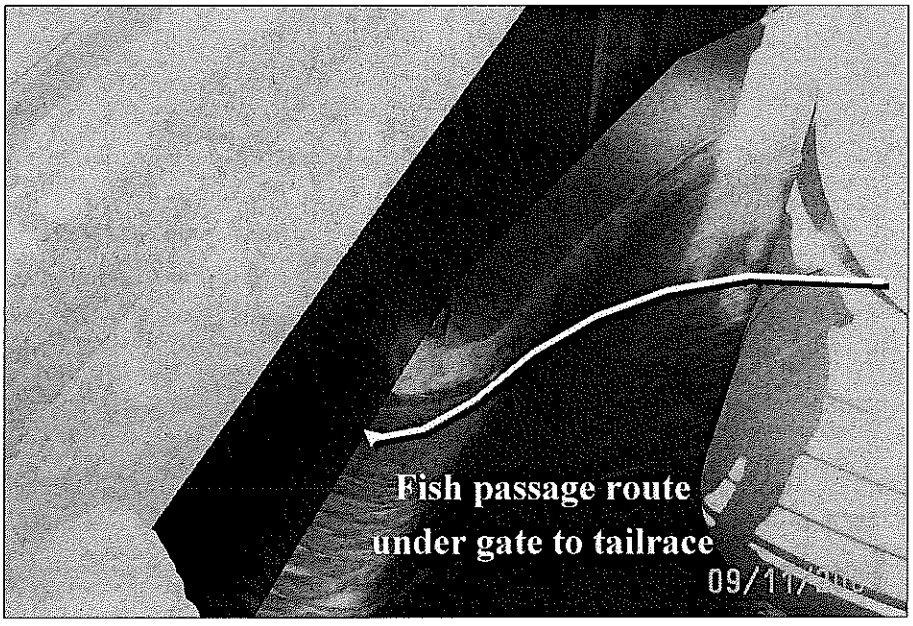


Figure A-7. Removable Spillway Weir in operation at Lower Granite Dam during testing in 2001.

The Corps is currently testing smaller temporary spillway weirs (TSW), which are more economical to build and possibly equally effective. The first test is ongoing at McNary Dam for the 2007 fish passage season. If successful, the TSWs could become permanent fixtures on other dams. They work on the same principle as their larger counterparts, attracting fish at the surface to avoid the dive required to pass through a conventional spillway. Initial thinking is that these devices could be installed in multiple spillbays at McNary and John Day dams, and potentially at The Dalles Dam.

Testing of surface passage devices (RSW's) at Lower Granite and Ice Harbor dams on the Snake River have demonstrated that forebay delay can be decreased, dam survival is better than or equal to past operations, and good juvenile egress through the tailrace can be provided. For example in tests at Ice Harbor in 2003, forebay residence times decreased from 1.8 hours to 1.1 hours for yearling Chinook (despite a lower spill volume) and tailrace egress times were under 5 minutes. In addition dam survival (concrete to tailrace) at Lower Granite and Ice Harbor in 2006 was estimated at 97% and 100% respectively.

A.2 Project Specific Changes

The following identifies structural improvements and upgrades made at particular projects through 2006, including baseline research, development and testing of prototype improvements, and construction of new facilities.

A.2.1 Bonneville Dam 1st Power House (PH1)

Bonneville Dam's PH1 was the first Federal hydroelectric dam to be built on the Columbia River. It is the last dam that migrating juvenile fish pass on their downstream journey to the ocean. This project began operating in 1938 with an adult fish ladder and an adult fish attraction system, and fish locks that were later closed because they were ineffective.

In the 1960s and 1970s, juvenile fish bypass channels were enhanced by drilling orifices from the turbine intake bulkhead slots into the ice/trash sluiceway. This allowed juvenile fish to enter the slots, swim into the sluiceway, and pass around the powerhouse. In the last few years these facilities have been improved. More effective screens have been installed to guide juvenile fish away from turbines. Flow deflectors were added to reduce total dissolved gas, and sophisticated monitoring devices have been installed to monitor passage for both juveniles and adult salmon.

Fish passage improvements at Bonneville Dam are listed in (Table A-1). These improvements complement earlier facilities, substantially improving in-river passage for both juvenile and adult salmon.

Table A-1. Fish Passage Improvements at Bonneville Dam PH 1 since 1995

Juvenile Passage Improvements		
Year	**Improvement**	**Purpose**
1995 to 2006	1. Spillway deflectors added to 5 bays.	1. Decreases gas entrainment, allows higher level of juvenile spillway passage
	2. Power distribution system modified for fish operations.	2. Allowed for B2 priority for powerhouse operations to improve juvenile survival (and reduce adult fallback)
	3. Installation of minimum gap turbine runners - 5 units completed by 2006. (2 additional units in 2007 and remaining 3 by 2009)	3. Reduce injury and mortality for fish passing through turbines

Adult Passage Improvements		
Year	**Improvement**	**Purpose**
1995 to 2006	1. Gates were taken out of entrances 1, 2, 64, and 65 to provide 8 feet of opening.	1. Enhance collection system effectiveness and reliability.
	2. Floating gate/orifice operating system modified with new motors and control system.	2. Enhances collection system effectiveness and reliability
	3. Adult PIT-tag detector installed.	3. Provides for monitoring PIT-tags on adults.
	4. Sea Lion Exclusion Devices (SLED).	4. Gates installed to keep marine mammals out of fish ladders.

A.2.2 Bonneville Dam 2nd Powerhouse (PH2)

The 2nd Powerhouse (PH2) at Bonneville Dam was the last constructed at a FCRPS mainstem dam; therefore, designers had the benefit of lessons learned from the monitoring and evaluation of fish passage facilities at the other dams. The construction included an adult ladder and an adult powerhouse collection system, which proved to be effective and few modifications have been needed. The construction also included juvenile bypass facilities; however, follow-on studies identified several issues with the juvenile facilities including lower than desired guidance efficiency and survival. Improvements to juvenile bypass facilities have increased their efficiency putting more fish in the juvenile bypass facility and decreasing the number of fish passing through turbines (Table A-2). In 2001, a new non-pressurized flume was installed from the powerhouse to a reach of the river with swifter flow several miles below the project. New PIT-tag monitoring equipment, separation/sampling facilities, and an outfall structure were constructed at the site.

Table A-2. Fish Passage Improvements at Bonneville Dam PH2 since 1995

Juvenile Passage Improvements		
Year	**Improvement**	**Purpose**
1995 to 2006	1. Juvenile bypass system upgraded, including outfall relocation and new collection channel and dewatering facility	1. Relocated bypass avoids predation at original outfall location. New collection channel and dewatering facility improved the potential for injury and stress. These features provided survival improvements.
	2. Surface bypass Corner Collector with ½ mile conveyance channel.	2. Further increases the percentage of fish that avoid turbine passage and provided outfall in location to improve survival.
	3. Improvements for fish guidance into juvenile bypass system (6 out of 10 units completed by 2006.	3. Improves percentage of fish guided away from turbines.
	4. Full flow PIT detection on bypass outfall flume.	4. Reduces need to subject juveniles to very low flow levels for PIT-tag detection, which will stress levels.
	5. PIT-tag antenna installed in the corner collector channel.	5. Capable of detecting tagged fish moving at high speeds down flume.
Adult Passage Improvements		
Year	**Improvement**	**Purpose**
1995 to 2006	1. Adult PIT-tag detectors. 3. Sea lion exclusion gates (SLEDS).	1. Provides collection point for PIT-tag data on adults. 3. Keeps marine mammals out of fish ladders.

A.2.3 The Dalles Dam

The Dalles Dam was completed in 1957 and its adult passage design was based on Bonneville Dam's design. In the 1990s, a series of improvements were made to the adult passage system. Juvenile fish passage facilities were not included in the initial construction of The Dalles Dam. In 1971, the ice/trash sluiceway was opened to skim juveniles from the forebay, and it has proved to be effective at passing juvenile fish. Improvements to passage facilities are shown in Table A-3.

Table A-3. Fish Passage Improvements at The Dalles Dam since 1995

Juvenile Passage Improvements		
Year	**Improvement**	**Purpose**
1995 to 2006	1. Constructed spillway wall.	1. Allows increased flows and fish at the North end of spillway which improves collection efficiency and juvenile egress from the spillway.
	2. Sluiceway improvements including opening additional gates.	2. Provides increased sluiceway efficiency and reduced turbine entrainment.
Adult Passage Improvements		
Year	**Improvement**	**Purpose**
1995 to 2006	1. Modifications to allow for adult entrance channel dewatering.	1. Allows for inspection and maintenance to ensure reliability of adult ladder system.

A.2.4 John Day Dam

John Day Dam was completed in 1968 and included a full adult passage system on each side of the project. A juvenile fish bypass system was retrofitted to the project in the 1980's and has subsequently been upgraded with a new monitoring facility. Recent improvements at John Day are shown in Table A-4.

Table A-4. Fish Passage Improvements at John Day Dam since 1995

Juvenile Passage Improvements		
Year	**Improvement**	**Purpose**
1995 to 2006	1 Juvenile fish monitoring facility,	1. Allows evaluation of juvenile condition and counting/sampling of PIT-tagged fish.
	2. Spill deflectors installed on 18 of 20 bays.	2. Reduces TDG levels during spill.
	3. Refurbished two north shore fish pumps.	3. Improves reliability.
	4. Full flow PIT-tag detection.	4. Improves detection and reduces stress on juvenile fish.
Adult Passage Improvements		
Year	**Improvement**	**Purpose**
1995 to 2006	1. Rehabilitated auxiliary water pumps.	1. Provides reliable auxiliary water supply for attraction/passage of fish.
	2. South ladder exit control section reconfigured.	2. Reduces fish jumping and delays in the south ladder.

A.2.5 McNary Dam

McNary Dam, the second dam to be built on the lower Columbia River, was completed in 1953 with adult fish ladders on both shores of the project. Fish passage conditions at McNary are very important because this is the first of four dams that all juvenile fish migrating from the upper Columbia River and the lower Snake River pass as they swim towards the ocean. This project was retrofitted with a juvenile bypass facility in 1978, with a full compliment of submerged traveling screens (STSs) screens and vertical barrier screens (VBSs) added in 1981.

In 1996 to 1997, extended submerged traveling screens (ESBSs) and vertical barrier screens (VBSs) were added to the bypass system. The system now guides over 80 percent of spring and 60 percent of summer migrants from the turbine intake into the bypass.

The McNary fish passage system is considered to be state-of-the-art. As research, monitoring, and evaluation efforts form a feedback loop, additional enhancements will be made to McNary passage system to further benefit migrating fish. More recent improvements at McNary are shown in Table A-5.

Table A-5. Fish Passage Improvements at McNary Dam since 1995

Juvenile Passage Improvements		
Year	**Improvement**	**Purpose**
1995 to 2006	1. ESBSs installed.	1. Guides more migrants away from the turbines into the bypass system.
	2. Spill deflectors place in remaining four bays. Others installed earlier.	2. Reduces TDG production during spill.
	3. Bypass system upgrades including full flow system.	3. Improves fish survival and health as they transit the bypass system.
	4. Rehabilitation of spillway gates and addition of hoists.	4. Allowed optimal spillway operation for fish passage.
Adult Passage Improvements		
Year	**Improvement**	**Purpose**
1995 to 2006	1. Adult PIT-tag detection systems in both fish ladders.	1. Improves ability to detect PIT-tags.
	2. Replaced powerhouse collection system stop logs with new stop logs.	2. Increases reliability of adult fish passage system.

A.2.6 Ice Harbor Dam

The Ice Harbor project was completed in 1961. Its original design included two adult fish ladders and a powerhouse adult fish attraction and collection system, all of which have been improved (Table A-6). The dam was constructed without dedicated juvenile salmon passage facilities because at that time it was assumed that juvenile survival would be adequate through the turbines and spill.

By the mid-1960s, studies of improvements with access to the ice/trash sluiceway were provided and in 1996, a powerhouse bypass system consisting of submerged traveling screens STSs, a dedicated channel in the old sluiceway, a flume to carry juveniles to the tailrace, and sampling

facilities were installed. High TDG levels from spill proved to be especially problematic at Ice Harbor, so spillway deflectors were installed on all ten spillbays in 1999.

Table A-6. Fish Passage Improvements at Ice Harbor Dam since 1995

Juvenile Passage Improvements		
Year	**Improvement**	**Purpose**
1995 to 2006	1. Submerged traveling screens (STSs) and VBSs put into each turbine intake, 12-inch orifices drilled from gatewell to bypass channel in old sluiceway, evaluation/marking facilities at bottom of bypass flume.	1. Increases the percentage of fish bypassed from the turbines.
	2. Spill deflectors installed on all spillbays.	2. Reduces TDG levels.
	3. PIT detection on main bypass flume	3. Allows PIT monitoring with lower potential for stress.
	4. RSW installed in 2005.	4. Allows more efficient spillway passage, reduces delay in the forebay.
Adult Passage Improvements		
Year	**Improvement**	**Purpose**
1995 to 2006	1. North shore auxiliary water supply system modified, new fish pumps installed.	1. Makes auxiliary water system effective and reliable.
	2. Adult PIT-tag detection systems.	2. Assesses adult fish passage and survival through the project.

A.2.7 Lower Monumental Dam

Lower Monumental Dam was completed in 1969 with adult fish ladders on both shores of the project. It also had a rudimentary powerhouse collection system with orifice entrances along the face of the powerhouse and a pipe that ran along the face of the dam. Recent improvements are substantial; including an RSW, spill deflectors, screen overhaul, and improved transportation facilities (Table A-7).

Table A-7. Fish Passage Improvements at Lower Monumental Dam since 1995

Juvenile Passage Improvements		
Year	**Improvement**	**Purpose**
1995 to 2006	1. STS overhaul.	1. Ensures STS efficacy and reliability.
	2. Spill deflectors installed on bays one and eight.	2. Reduces TDG levels.
	3. Barge loading and improved dewatering facilities.	3. Improves juvenile transportation system.
	4. Addition of parapet wall	4. Reduces TDG levels and allows full use of end bays at the spillway
	5. PIT-tag detector in main transport flume	5. Allows for better counting and analysis of migration patterns and survival.
Adult Passage Improvements		
Year	**Improvement**	**Purpose**
1995 to 2006	1. All three auxiliary water supply pumps rehabilitated.	1. Ensures fish ladder auxiliary water system efficacy and reliability.

A.2.8 Little Goose Dam

Little Goose Dam went into service in 1970 with a single south shore ladder for adult fish passage, a powerhouse collection channel, and two north spillway entrances with a channel leading to the powerhouse collection channel. A turbine pump provided auxiliary water from the tailrace for the powerhouse collection system. In 1991, picketed leads to reduce adult fish fallout from the ladder entrances were placed at the north end of the powerhouse collection channel and were enhanced in 1994.

Little Goose was constructed with the same elemental juvenile fish bypass design as Lower Monumental and John Day dams. It featured 6-inch orifices to each gatewell leading to an embedded pipe that carried fish around the powerhouse and discharged them into the tailrace. The bypass-transport facilities that had been built in 1980 were replaced in 1990. The new facilities featured a modified collection channel, a new dewatering structure, a corrugated flume, a new "wet" separator, a new evaluation facility, holding ponds, and a loading/outfall structure. In the mid-1990's the STSs were replaced with newly designed VBSs and extended length bar screens (ESBSs). The PIT-tag diversion and detection system has also been rebuilt and is now state of the art. Turbine intake emergency gates were also raised to increase fish guidance efficiency (FGE). More recent improvements at Little Goose are shown in Table A-8.

Table A-8. Fish Passage Improvements at Little Goose Dam since 1995

Juvenile Passage Improvements		
Year	**Improvement**	**Purpose**
1995 to 2006	1. ESBS's and improved VBSs.	1. Increases FGE and reduced turbine entrainment on juveniles.
	2. Upgraded PIT-tag sort by code, routing, bypass outfall.	2. Reduces fish delay, stress, and predation.
	3. Trash shear boom	3. Reduces amount of debris entering gatewells, thereby reducing fish injury and mortality.

Adult Passage Improvements		
Year	**Improvement**	**Purpose**
1995 to 2006	1. Picketed leads in collection system channel.	1. Fewer fish fall out of the channel into the tailrace.
	2. Auxiliary water supply improvement.	2. Improves fish ladder system reliability.

A.2.9 Lower Granite Dam

Lower Granite Dam was constructed in 1975 with an adult fish collection and passage system consisting of a single south shore adult fish ladder, a powerhouse collection channel with main entrances at the end of the powerhouse, and two north shore entrances with a transportation channel under the spillway leading to the powerhouse collection channel.

The adult passage system proved to be effective and was not modified until the early 1990s when the fishway controls were upgraded. In 1993, permanent picketed leads were installed to reduce fallout of adults from the ladder entrances. The adult fish trap was rebuilt in 1998 and adult PIT-tag detectors were added.

Lower Granite Dam was the first mainstem project to have a full juvenile STS bypass-transport system included in its original design. The bypass included VBSs, 8-inch orifices that led to dewatering structures, and a pressurized pipe at the south end of the powerhouse. The pipe led down the tailrace into a fish/water separator, holding ponds, an evaluation/monitoring facility, a transport loading dock, and an outfall.

In the early 1980s, the juvenile bypass and transportation systems were overhauled. New generation STSs were installed, the gatewell orifices were increased to 10 inches, the dry separator was replaced by a wet separator, and new raceways were installed. In the early 1990s, emergency gates were removed from their gate slots in a successful effort to improve FGE. In 1996, the STSs were replaced with new VBSs and extended-length bar screens. To provide a surface passage route for juvenile fish a RSW was installed in 2001 at Lower Granite, which yields roughly 98 percent passing survival for juvenile fish. More recent improvements at Lower Granite are shown in Table A-9.

Table A-9. Fish Passage Improvements at Lower Granite Dam since 1995

Juvenile Passage Improvements		
Year	**Improvement**	**Purpose**
1995 to 2006	1. New ESBSs and VBSs installed.	1. Fish stress and injury reduced in bypass system
	2. PIT-tag sort by code improvements.	2. Decrease stress.
	3. Spill deflectors.	3. Reduces TDG levels.
	4. RSW installed and tested.	4. Allows more efficient spillway passage and decreased forebay delay.

Adult Passage Improvements		
Year	**Improvement**	**Purpose**
1995 to 2006	1. PIT-tag detectors added.	1. Allows for monitoring of returning adult fish.
	2. Fish trap modified and expanded	2. Provide better adult fish handling conditions.
	3. modified diffuser and transition pools	3. Improve adult passage by eliminating fishway fallout
	4. Auxiliary water supply improvements.	4. Increased reliability of ladder operation.

B. REGULATING FLOW TO ASSIST JUVENILE FISH MIGRATION

Managing water in the Columbia River system for its many purposes is particularly challenging given the relatively small portion of the annual runoff volume that can actually be stored in reservoirs. The runoff produces an annual average of about 200 million acre-feet of water, but only about 20 percent of it can be impounded for useful purposes. By contrast, the Colorado River system can store about three times as much runoff as it normally receives in a given year. The Missouri River system has about two times more useable storage than average annual runoff.

The notably larger storage capacities of the Colorado and Missouri River systems present much different management considerations than the Columbia River system. These systems have the capacity to store water for subsequent years' use, whereas the Columbia River system, with its large annual volume to usable storage ratio, has to evacuate on a yearly basis to accommodate water supply conditions in the Columbia Basin. This means that operators cannot use stored water to transform a dry year's water supply into an average flow year. Operators of the hydropower system must deal with the variability in annual rain and snowpack relying on professional judgment.

Flows for fish are an important component of water management in the Columbia River Basin. Fish operations draw on 8 million acre-feet of stored water annually—about one-quarter of the 30-million acre-feet of storage in U.S. reservoirs and Treaty storage in Canada. Because much of the available storage is in Treaty projects in Canada, its use downstream is governed by the Columbia River Treaty. Use of Treaty storage for fishery purposes depends on development of mutually beneficial agreements between the United States and Canada. Use of space in Canadian reservoirs not included in the Treaty, referred to as non-Treaty storage, requires negotiation of additional agreements.

In recent Treaty agreements, Canada has allowed storage of flow augmentation water (1 million acre-feet) for U.S. fishery benefits in exchange for flow shaping for meeting fishery objectives in Canada. The 1 million acre-feet is released within the May through July period to assist juvenile migration in the United States. If this flow augmentation water is released across one month, it equates to an additional flow of 16,000 thousand cubic feet per second (kcfs) for that month, equal to about 6 percent of spring flow objective, or about 8 percent of the summer flow objective of 200 kcfs at McNary Dam.

The 1995 biological opinion "substantially alters the operation of the reservoirs in the FCRPS compared to the 1993 and 1994 biological opinions" (1995 BiOp, p. 96). The Action Agencies were to henceforth operate the FCRPS during fall and winter months at high confidence levels that refill would be accomplished by April 20. Flow targets were to be met in the spring while ensuring sufficient storage of water to be available by June 30 to meet summer flow targets.

The objective of fish operations today is to provide flows in a natural pattern, to the extent that the design of the system for multiple purposes will allow. Figure A-8 illustrates how flows are shaped to more closely approximate a natural, unregulated river to assist fish migration. It compares the regulated flow in October 2005- September 2006 (the 2006 water year) to what would have been a natural flow in that year. In this year, precipitation was measured at about 100 percent of the 71-year average.

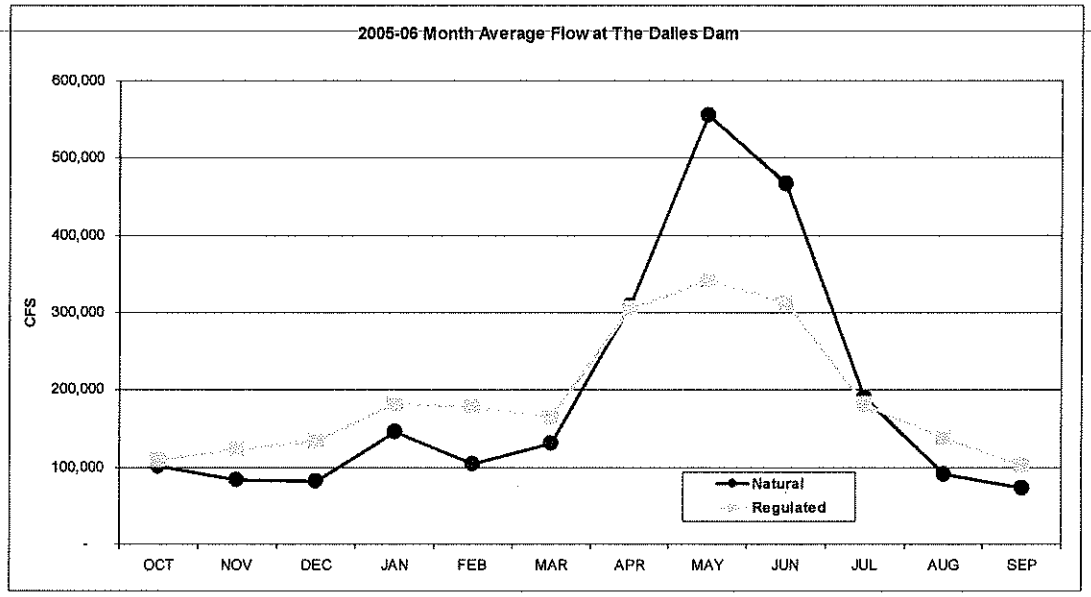


Figure A-8. Natural and Regulated Monthly Average Flow at The Dalles Dam for the 2006 water year.

Another way of looking at the changes in flow due to reservoir operations for fish is in millions of acre-feet of water passing The Dalles Dam. Figure A-9 shows the additional flow at The Dalles during the juvenile migration period (April through August) due to reservoir operations for fish (60-year average) under the 2004 BiOp. Fish operations would add 8.3 million acre-feet on average—4.6 to 13.2 million acre-feet, depending on annual precipitation.

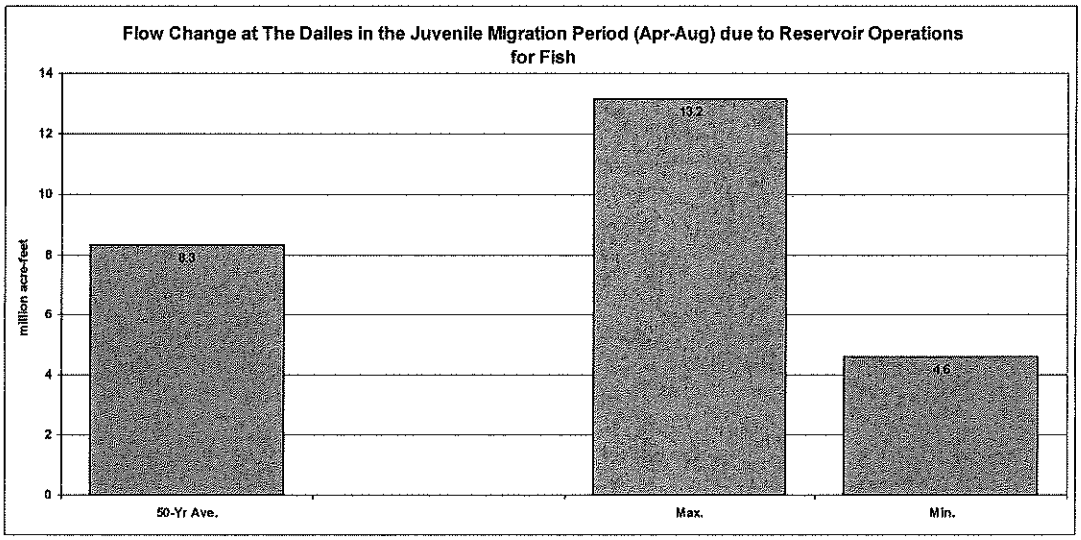


Figure A-9. Flow Change at The Dalles Dam during the Juvenile Migration Period (April through August) Due to Reservoir Operations for Fish (60-year average)

The volume of water in the river each year is as variable as the weather. Figure A-10 depicts a 60-year average regulated flow at The Dalles Dam, with and without fish operations. Given limited storage and other constraints, these operations are a substantial change, pressing the design capabilities of the system.

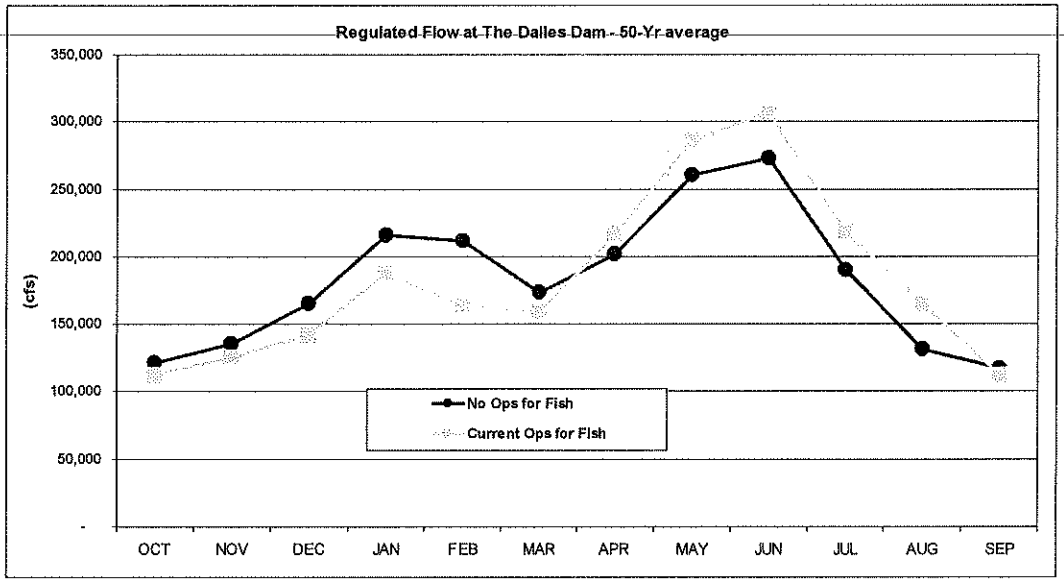


Figure A-10. Sixty-Year Average Regulated Flow at The Dalles Dam, With and Without Fish Operations

The eight federal dams on the lower Columbia and Snake Rivers are "run of the river" dams, that is, low head dams that have little or no storage capacity and essentially pass inflows[3]. Nevertheless, the impeded flow in these reservoirs affects the progress of juvenile salmon through the system in several ways: slower travel, increased water temperature, and increased exposure to predators among them. In 1995, the Corps began operating the lower Snake reservoirs within 1 foot of minimum operating pool (the level required to provide safe navigation, operate fish facilities within design criteria, and operate turbines). The 1995 biological opinion also called for John Day pool to be operated within one and one-half foot of minimum irrigation pool from April 20 through the summer. These drawdowns reduce the width or the cross-section of the reservoir, thereby increasing water velocity.

The summer flow management objective is to draft reservoirs within specific limits to meet flow targets and to manage water temperatures to benefit migrating juvenile salmon. Cooler water is also thought to assist adult migration.

Flood control procedures have been modified to the extent possible without unduly increasing risk. At storage reservoirs behind Libby and Hungry Horse dams, operators recently adopted a flexible release schedule called VARQ (i.e., VAR [variable] Q [flow]) to bolster flows for several ESA-listed fish. VARQ entails maintaining higher levels of water in certain reservoirs from January through April when the runoff is forecasted to be average or less. By this means, operators can provide flood control while ensuring that more water is available for adult Kootenai River white sturgeon and juvenile salmon and steelhead migration in spring and summer.

Finally, the operators strive to provide habitat for mainstem spawning chum and fall Chinook salmon. They maintain sufficient flow below Bonneville Dam to keep redds submerged until juvenile fish hatch in the spring.

[3] John Day Dam has approximately 500 thousand acre-feet of flood control storage.

C. SPILL OPERATIONS TO ASSIST JUVENILE FISH PASSAGE

Spill operations are a method of guiding juvenile salmon and steelhead through spillways rather than through turbines. The objective of the spill program is to achieve maximum survival, along with other passage routes, at each dam. Survival is measured by detecting the PIT-tagged fish as they pass from the forebay above the dam to the tailwater below the dam.

Prior to the 1995 BiOp, the operators' objective was to attain a fish passage efficiency[4] (FPE) of 70 percent for spring migrants and 50 percent for summer migrants. To accomplish this, spill was provided at three dams. The other dams met the goal without spill. In the longer term, the plan was to complete structural bypass systems at the four lower Snake River and four lower Columbia River dams to boost in-river survival.

In the 1995 BiOp, the objective was raised to achieve 80 percent FPE at all eight projects by spilling water through the spring months at each project. Timing and volume of spill at each project was designed to achieve biological benefits with a cap to avoid harmful levels of TDG. Given the fact that most juvenile fish have passed through the system by August, limited spill was to be provided in summer months, primarily at Ice Harbor and the three lower Columbia dams, where no fish are collected for transport.

Bypass facilities of various types have been added to dams with survival of juvenile fish increasing to 90 to 95 percent at each dam. As discussed earlier, surface passage modifications such as RSWs and the Bonneville Dam Corner Collector can achieve higher survival rates (97 percent or higher with RSWs, and 100 percent with the Corner Collector), while spilling less water.

The various routes of juvenile passage notwithstanding, most juvenile fish in the river find their way through spillways. Table A-10 illustrates how the use of spill has increased significantly in duration and volume since the 1995 biological opinion based on biological results. Notable are the significant increases in spring and summer spill in that year and again in 2000, along with the addition of biological criteria balancing gas saturation, tailrace conditions, and adult passage. The 2000 biological opinion based annual spill programs on "the best available monitoring and evaluation data concerning project passage, spill, and system survival research" (2000 BiOpp. 9-88). This principle was extended to the 2004 biological opinion, further increasing the reliance on biological performance to set spill levels at each project.

In 2004, emphasis turned to 24-hour surface spill through RSWs and the Corner Collector at Bonneville Dam. A Court Order in 2005 required summer spill at Lower Granite, Little Goose, and Lower Monumental dams on the Snake River, and at McNary Dam on the Columbia River, which was continued in 2006 and 2007. Monitoring in 2005 and 2006 showed nearly all of the Snake River fall Chinook salmon (both hatchery and wild) passed Little Goose and Lower Monumental dams by late July or early August.

[4] Fish Passage Efficiency is a measure of percent of juvenile fish that are diverted away from turbine passage, either via spill or through the juvenile bypass facilities.

Table A-10. Historical, Spring, and Summer Spill Levels.

Historical Spill Levels

		1988 Spill MOA	1994 BiOp	1995 BiOp	1998 BiOp	2000 BiOp	2004 BiOp	2005 Court Order	2006 Court Order
	Starting ~1978 spill is provided informally based on fish presence at each dam	Spill is intended as an interim measure until bypass systems are installed to provide 70% spring and 50% summer FPE (non-turbine passage)	Still striving for 70% spring and 50% summer FPE and completion of bypass systems at all dams	Spill percentages primarily based on achieving 80% FPE (non-turbine passage), uncertainty about benefits of transportation is noted	Emphasis on increasing gas caps	Prioritized spill passage, also seeking balance between high gas cap spill, good tailrace conditions, and good adult passage	Emphasis on 24-hour surface spill, good tailrace conditions, and good adult passage	Addition of summer spill at transport projects	Continuing summer spill at transport projects

Spring Spill Levels

		1988 Spill MOA	1994 BiOp	1995 BiOp	1998 BiOp	2000 BiOp	2004 BiOp	2005 Court Order	2006 Court Order
Dates	No Formal Dates	Between 10 and 90% passage dates (4/15-5/31 @ IHR and LMN and 5/1-6/6 @ TDA)	4/15-5/31 @ IHR and 5/1-6/6 @ TDA	4/10-6/20 in Snake River, 4/20-6/30 in Columbia River	4/3-6/20 in Snake River, 4/10-6/30 in Columbia River	4/3-6/20 in Snake River, 4/10-6/30 in Columbia River	4/3-6/20 in Snake River, 4/10-6/30 in Columbia River	n/a (2004 BiOp operations implemented during the spring)	4/3-6/20 in Snake River, 4/10-6/30 in Columbia River
Hours	Generally at night, no specific times	12 hours @ LMN and IHR, 24 hours @ TDA	12 hours @ IHR, 8 hours @ TDA	24 hours @ IHR, TDA and BON, 12 hours @ all others	24 hours @ IHR, TDA and BON, 12 hours @ all others	24 hours @ LMN, IHR, TDA and BON, 12 hours @ all others	24 hours @ LMN, IHR, TDA and BON, 12 hours @ all others	n/a	12 hours @ JDA, 24 hours @ all others
Lower Granite		No spill	No spill	0 day and 80% night (40 kcfs gas cap)	0 day and 80% night (45 kcfs gas cap)	0 day and gas cap night (60 kcfs gas cap)	20 kcfs day and 20 kcfs night	n/a	20 kcfs day and night
Little Goose		No spill	No spill	0 day and 80% night (35 kcfs gas cap)	0 day and 80% night (60 kcfs gas cap)	0 day and gas cap night (45 kcfs gas cap)	0 day and gas cap night	n/a	30% of flow day and night
Lower Monumental		0 day and 70% night	No spill	0 day and 81% night (40 kcfs gas cap)	0 day and 81% night (40 kcfs gas cap)	Gas cap day and gas cap night (40 kcfs gas cap)	Gas cap day and night	n/a	Gas cap day and night

Table A-10. Historical, Spring, and Summer Spill Levels (continued)

		1988 Spill MOA	1994 BiOp	1995 BiOp	1998 BiOp	2000 BiOp	2004 BiOp	2005 Court Order	2006 Court Order
Spring Spill Levels (continued)									
Dates	No Formal Dates	Between 10 and 90% passage dates (6/1-7/22 @ IHR and LMN and 6/7-8/22 @ JDA and TDA)	6/1-8/23 @ IHR and 6/7-8/23 @ TDA and JDA	6/21-8/31 in Snake River, 7/1-8/31 in Columbia River	6/21-8/31 in Snake River, 7/1-8/31 in Columbia River	6/21-8/31 in Snake River, 7/1-8/31 in Columbia River	6/21-8/31 @ IHR, 7/1-8/31 @ JDA, TDA, and BON	2004 BiOp spill plus 7/1-8/31 @ LGR, LGS, LMN, MCN	6/21-8/31 @ Snake River Dams, 7/1-8/31 @ Columbia River Dams
Hours	Generally at night, no specific times	12 hours @ LMN and IHR, 24 hours @ TDA	12 hours @ IHR, 8 hours @ TDA	24 hours @ IHR, TDA and BON, 12 hours @ all others	24 hours @ IHR, TDA and BON, 12 hours @ all others	24 hours @ LMN, IHR, TDA and BON, 12 hours @ all others	24 hours @ LMN, IHR, TDA and BON, 12 hours @ all others	n/a	12 hours @ JDA, 24 hours @ all others
Ice Harbor		0 day and 25% night	0 day and 60% night up to 25 kcfs max	27% day and 27% night (25 kcfs gas cap)	45 kcfs day and gas cap night (75 kcfs gas cap)	45 kcfs day and gas cap night (100 kcfs gas cap)	20 kcfs day and night	n/a	45 kcfs day/Gas Cap Night 4/3-4/19, BiOp vs 30% –4/20-6/20
McNary		No spill	No spill	0 day and 50% night (120 kcfs gas cap)	0 day and gas cap night (150 kcfs gas	0 day and gas cap night (120-150 kcfs gas cap)	0 day and gas cap night	n/a	0 day and Gas Cap night 4/10-4/19, 40% 4/20-6/20
John Day		No spill	No spill	0 day and 33% night (20-50 kcfs gas cap)	0 day and 60% night (180 kcfs gas cap)	0 day and 60% night (85-160 kcfs gas cap) (began testing 24-hr spill)	No spill day and 60% night	n/a	0 day, 60% night
The Dalles		0 day and 10% night	0 day and 10% night	64% day and 64% night (230 kcfs gas cap)	64% day and 64% night (230 kcfs gas cap)	40% day and 40% night (230 kcfs gas cap) (40% spill improved tailrace conditions)	40% day and 40% night	n/a	40% of flow day and night
Bonneville		No spill	Spill if necessary to provide 70% FPE (non-turbine passage	Not specified due to adult passage concerns, implemented 75 kcfs day and gas cap night (120 kcfs gas cap)	Not specified due to adult passage concerns, implemented 75 kcfs day and gas cap night (120 kcfs gas cap)	75 kcfs day and gas gap night (90-150 kcfs gas cap)	75 kcfs day and gas cap night	n/a	100 kcfs day and night

Table A-10. Historical, Spring, and Summer Spill Levels (continued)

		1988 Spill MOA	1994 BiOp	1995 BiOp	1998 BiOp	2000 BiOp	2004 BiOp	2005 Court Order	2006 Court Order
Spring Spill Levels (continued)									
Dates	No Formal Dates	Between 10 and 90% passage dates (6/1-7/22 @ IHR and LMN and 6/7-8/22 @ JDA and TDA)	6/1-8/23 @ IHR and 6/7-8/23 @ TDA and JDA	6/21-8/31 in Snake River, 7/1-8/31 in Columbia River	6/21-8/31 in Snake River, 7/1-8/31 in Columbia River	6/21-8/31 in Snake River, 7/1-8/31 in Columbia River	6/21-8/31 @ IHR, 7/1-8/31 @ JDA, TDA and BON	2004 BiOp spill plus 7/1-8/31 @ LGR, LGS, LMN, MCN	6/21-8/31 @ Snake River Dams, 7/1-8/31 @ Columbia River Dams
Hours	Generally at night, no specific times	12 hours @ LMN and IHR, 10 hours @ JDA, 24 hours @ TDA	12 hours @ IHR, 10 hours @ JDA, 8 hours @ TDA	24 hours @ IHR, TDA and BON, 12 hours @ all others	24 hours @ IHR, TDA and BON, 12 hours @ all others	24 hours @ LMN, IHR, TDA and BON, 12 hours @ all others	24 hours @ LMN, IHR, TDA @ BON, 12 hours @ all others	24 hours at all projects	24 hours at all projects
Lower Granite		No spill	No spill	No spill	No spill	No spill	No spill	Operate one turbine, spill the rest	18 kcfs day and 18 kcfs night
Little Goose		No spill	No spill	No spill	No spill	No spill	No spill	Operate one turbine, spill the rest	30% day and 30% night
Lower Monumental		0 day and 70% night	No spill	No spill	No spill	No spill	No spill	Operate one turbine, spill the rest	17 kcfs day and 17 kcfs night
Ice Harbor		0 day and 25% night	0 day and 30% night up to 25 kcfs max	70% day and 70% night (25 kcfs gas cap)	45kcfs day and gas cap night (75 kcfs gas cap)	45kcfs day and gas cap night (100 kcfs gas cap)	45kcfs day and gas cap night (115 to 120 kcfs gas cap)	Operate one turbine, spill the rest	45 kcfs day and gas cap night
McNary		No spill	No spill	No spill	No spill	No spill	No spill	50 kcfs through powerhouse, spill the rest	Alternating 40% day and 40% night vs 60% day and 60% night
John Day		0 day and 20% night	0 day and 20% night	0 day and 86% night (20-50 kcfs gas cap)	0 day and 60% night (180 kcfs gas cap)	0 day and 60% night (85 to 160 kcfs gas cap) (began testing 24-hour spill)	30% day and 30% night	30% day and 30% night	30% day and 30% night
The Dalles		0 day and 5% night	0 day and 5% night	64% day and 64% night (230 kcfs gas cap)	64% day and 64% night (230 kcfs gas cap)	40% day and 40% night (230 kcfs gas cap) (40% spill improved tailrace conditions)	40% day and 40% night	40% day and 40% night	40% day and 40% night

Table A-10. Historical, Spring, and Summer Spill Levels (continued)

		1988 Spill MOA	1994 BiOp	1995 BiOp	1998 BiOp	2000 BiOp	2004 BiOp	2005 Court Order	2006 Court Order
Summer Spill Levels									
Dates	No Formal Dates	Between 10 and 90% passage dates (6/1-7/22 @ IHR and LMN and 6/7-8/22 @ JDA and TDA)	6/1-8/23 @ IHR and 6/7-8/23 @ TDA and JDA	6/21-8/31 in Snake River, 7/1-8/31 in Columbia River	6/21-8/31 in Snake River, 7/1-8/31 in Columbia River	6/21-8/31 in Snake River, 7/1-8/31 in Columbia River	6/21-8/31 @ IHR, 7/1-8/31 @ JDA, TDA and BON	2004 BiOp spill plus 7/1-8/31 @ LGR, LGS, LMN, MCN	6/21-8/31 @ Snake River Dams, 7/1-8/31 @ Columbia River Dams
Hours	Generally at night, no specific times	12 hours @ LMN and IHR, 10 hours @ JDA, 24 hours @ TDA	12 hours @ IHR, 10 hours @ JDA, 8 hours @ TDA	24 hours @ IHR, TDA and BON, 12 hours @ all others	24 hours @ IHR, TDA and BON, 12 hours @ all others	24 hours @ LMN, IHR, TDA and BON, 12 hours @ all others	24 hours @ LMN, IHR, TDA @ BON, 12 hours @ all others	24 hours at all projects	24 hours at all projects
Bonneville		No spill	Spill if necessary to provide 50% FPE (non-turbine passage)	Not specified due to adult passage concerns, implemented 75 kcfs day and gas cap night (120 kcfs gas cap)	Not specified due to adult passage concerns, implemented 75 kcfs day and gas cap night (120 kcfs gas cap)	75 kcfs day and gas cap night (90-150 kcfs gas cap)	75 kcfs day and gas cap night (115-120 kcfs gas cap)	75 kcfs day and gas cap night (115-120 kcfs gas cap)	75 kcfs day and 120 kcfs night

BON= Bonneville Dam, IHR= Ice Harbor Dam, JDA = John Day Dam, LGR = Lower Granite Dam, LGS = Little Goose Dam, LMN = Lower Monumental Dam, MCN = McNary Dam, MOA = memorandum of agreement

D. TRANSPORTATION OF JUVENILE FISH

Research on the most effective ways to transport juvenile fish began in 1968. Today, millions of juvenile fish are collected and transported each year from facilities located at Lower Granite, Little Goose, Lower Monumental, and McNary dams. Since 1995, two additional large transport barges went into service, bringing the total to eight.

Given uncertainties surrounding both in-river migration and transportation, the Action Agencies continue to use a risk management strategy for fish passage. Operations since 1995 dictate transport during summer flow and other low-flow periods, when juveniles face the highest risk if left in the river to migrate. Ninety-eight percent of transported fish survive to be released in the river below Bonneville Dam, however, the returns of adult fish are the key indicator for success of the program. In recent years, extensive research on transport has occurred to better manage the transport program. This research has focused on timing - when is it best to transport or leave fish in-river. The result of this work directs the recent transportation management strategy based on the type of water year (e.g. high or low runoff), water quality conditions (e.g. water temperature changes), and in-season changing flow conditions (e.g. changes from spring to summer like flow conditions). An example of this was water year 2000-2001, a very low water year when virtually all spring and summer migrants in the Snake River were transported. When those fish returned as adults to Ice Harbor Dam as adults in 2003 and 2004, their numbers were among the highest of record (University of Washington Data Access in Real Time [DART] Program). Transportation, along with other mitigating measures, helped ensure that a large number of juvenile fish entered the Pacific Ocean to benefit from favorable ocean conditions.

E. CONTROL OF PREDATORS

Many kinds of human activity in the river environment have had the unintended consequence of increasing predation on juvenile salmon by birds, fish, and marine mammals. In some cases, this predation can be severe. For example, Caspian terns residing on islands in the estuary consume large numbers of listed juvenile fish. A program to encourage the terns to move away from the estuary and closer to the ocean has proved effective, reducing the losses of young salmon from an estimated 14 million in 1999 to 3.6 million in 2005. Cormorants consumed an estimated 6.4 million juvenile salmon in 2005.

Sea lions have appeared at Bonneville Dam, 140 miles upstream from the Pacific Ocean. Adult salmon congregating below the dam are easy prey for the sea lions. NOAA Fisheries and the Corps, with the Oregon and Washington fish and wildlife agencies, and the CRITFC, have employed a variety of harassment techniques to drive the sea lions away. Large, removable steel gates (SLEDS) have been installed to keep the animals out of the fish ladders. The SLEDS have been effective in keeping most of the sea lions out of the fishways. One animal, "C404," continues occasional excursions into the Washington shore fishway.

One of the largest and most successful predator control programs addresses the northern pikeminnow, a fish that consumes juvenile salmon. A sport-reward angling program, which began in the early 1990s, pays fishers for each pikeminnow they catch. Each year the program is upgraded to produce better results. This year, the fishers hooked nearly 200,000 pikeminnow and were paid $4 to $8 per fish at reception stations. Since its inception, the program has removed 2.7 million pikeminnow, saving about 3 million juvenile salmon.

Save Our wild Salmon

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To: Environmental Quality Commission
From: Rhett Lawrence, SOS Policy Analyst
Date: June 21, 2007
Re: Proposed TDG Waiver for the Mainstem Columbia River

Chair Hampton and members of the Commission: Good afternoon, my name is Rhett Lawrence and I am a policy analyst with the Save Our Wild Salmon (SOS) coalition. Founded in 1991, SOS is a nationwide coalition of conservation organizations, commercial and sport fishing associations, businesses, river groups, and taxpayer advocates – all joined in a commitment to protect and restore Pacific Northwest wild salmon and the communities that depend on them.

I thank you for the opportunity to testify before you today. We have previously submitted written comments to DEQ on this matter and those should be included in the packet of information you have already. And rather than go through those comments in detail again today, I wanted to simply highlight our main concerns.

As you know, the U.S. Army Corps of Engineers (Corps) is requesting to continue its waiver to Oregon's total dissolved gas (TDG) standard for the purpose of spilling water at the four lower Columbia River dams to assist in the passage of out-migrating salmon and steelhead trout. Since 1994, the waiver criteria for TDG for the mainstem Columbia River dams have had a limit of 115% in the forebay and 120% in the tailrace.

However, SOS questions whether the original criteria for TDG remain appropriate given additional knowledge gained in the intervening 13 years. NOAA Fisheries' 2004 Biological Opinion (BiOp) and the spring/summer spill program ordered by the U.S. District Court have solidified existing concerns both about the existing 115/120% guidelines and also about the accuracy and usefulness of forebay monitoring stations.

For juvenile salmon and steelhead migrating in the Snake and Columbia rivers, spill indisputably provides the safest downstream passage past the Federal Columbia River Power System (FCRPS) dams. Allowing water over the spillways at these dams allows juvenile salmon to avoid traveling through the power turbines and results in lower mortality than the practice of diverting fish from the turbine intakes and "bypassing" them through a series of pipes and tunnels to be ejected at the lower side of the dam.

I will not belabor the point, but in short, spill provides the best and safest route of passage for juvenile salmon and steelhead, allowing them to avoid higher turbine and bypass mortalities, reducing passage delay, and dispersing predators. While excessive TDG can be harmful to those fish in the form of gas bubble trauma (GBT), we believe that our recommendations find the right balance and will significantly aid salmon in the Columbia and Snake Rivers.

With the above as background, our recommendations are as follows:

1. Discontinue the use of forebay monitors

As we noted in our written comments, we believe that the continued use of downstream forebay monitors for measuring and limiting TDG levels must be re-evaluated. While the original intent of forebay monitors was to represent a mixed cross-section of the river just upstream of a dam, it has never been clear that these monitors actually do so. You have no doubt been provided copies of the Fish Passage Center (FPC) analysis of spring spill in 2006 for the eight FCRPS dams, which contained a thorough review of the utility of forebay monitors and concluded that they were not working as intended. In addition, the technical comments provided to DEQ by the Columbia River Intertribal Fish Commission (CRITFC), Idaho Department of Fish and Game (IDFG), Oregon Department of Fish and Wildlife (ODFW), Washington Department of Fish and Wildlife (WDFW), and the U.S. Fish and Wildlife Service (USFWS) reached the same conclusion.

Again, rather than go through a lot of detail that has already been provided to you, suffice it to say that we believe that the science is nearly incontrovertible that the forebay monitors are not providing accurate readings and are thus not serving their intended purpose. What they are doing, however, is artificially constraining spill in the Columbia River to the detriment of salmon and steelhead. So, first and foremost, **we recommend that DEQ drop the requirement that the Corps use forebay monitors altogether and instead use only the tailrace monitors to measure TDG levels at the mainstem Columbia River dams.**

We are aware, however, that DEQ feels it cannot legally discontinue the use of forebay monitors because the language of the TDG Total Maximum Daily Load (TMDL) will not let them. From conversations with DEQ staff, it has become apparent that that belief stems from a single sentence on page 72 of the document, in the short-term implementation section: "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."

Unfortunately, such an approach by DEQ sets up the absurd situation that strict construction of the TMDL will actually work to the detriment of one of the primary beneficial uses designated for the Columbia River: fish and aquatic life. Because spill will be (and is currently being) dramatically limited by the use of these inaccurate forebay monitors, many fewer salmon and steelhead will survive their downstream journeys to the ocean. This cannot be the intended purpose of the TMDL and it certainly contradicts the TMDL's stated need to work hand in hand with the Endangered Species Act.

Furthermore, we believe that there is other language in the TMDL which would suggest that DEQ's strict interpretation of the TMDL in such a manner is not warranted. For instance, on page 20, after noting that there is some evidence that some fixed monitoring station (FMS) sites are not collecting accurate or representative information, the document states: "For the purposes of TMDL compliance, TMDL requirements do not need to drive FMS siting issues." In addition, page 63 says:

> 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 [emphasis supplied].

In short, SOS believes that DEQ's insistence that forebay monitors are absolutely required by the TMDL is both inconsistent with the purpose of the TMDL in the first place (protection of designated beneficial uses of the Columbia River) and inconsistent with the actual language of the TMDL itself. DEQ is being anything but adaptive and flexible here, and is instead adhering to a construction of the document that is going to result in the death of untold numbers of salmon and steelhead. We would strongly urge the Environmental Quality Commission to take a more reasoned and protective approach and direct that the use of these forebay monitors be discontinued immediately.

2. Set waiver criteria for the forebay and tailrace at 120%

In the event that forebay monitors continue to be used, **we recommend that the Corps' waiver criteria should be set at 120% for both the forebay and tailrace monitors.** As documented in the Corps' information summary submitted to DEQ with its waiver request, data collected for the GBT monitoring program over the past thirteen years shows that the incidence of GBT in juvenile and adult chinook and steelhead, in resident fish, and in invertebrates is virtually nonexistent when gas levels are at or below the 120% tailrace criteria. On the other hand, the percentage of fish afflicted with GBT begins to increase above 120% and then dramatically increases above 125%.

During the past two years, spill has been limited in the spring and summer months in the Snake and Columbia Rivers in order to comply with the 115% forebay standard. As already noted, this limitation has unnecessarily hindered safe fish passage and has constrained a proven and available method to reduce salmon and steelhead mortality through the hydrosystem.

As an example, the FPC's analysis of spring spill in 2006 for the eight FCRPS dams found that, primarily due to the Corps' actions to meet the downstream forebay limits, spring spill was approximately 4.4 million acre feet (MAF) less than would be expected under the Court's Order if TDG were not constrained at all. In addition, if the forebays and tailrace waiver were both set to 120% (or if only the tailrace monitors were used to determine compliance), 4.1 MAF of this 4.4 MAF would have been spilled. This foregone spill is obviously a huge cost to salmon and steelhead survival.

Though there is some question about whether the Corps is managing spill too conservatively even under the current waiver standards, there is no dispute that the 115% forebay limit is causing the Corps to curtail spill necessary to protect salmon and steelhead. We were thus disappointed that, despite these facts, the Corps chose not to apply for a 120% forebay waiver. And we are even more disappointed that DEQ has chosen not to recommend such a waiver adjustment itself and has instead made the claim in the Staff Report that these specific limits are explicitly required by the TMDL.

The fact of the matter is that the TMDL makes no such explicit statement and instead just says that the short-term implementation actions need to meet the requirements of the 2000 FCRPS Biological Opinion (BiOp). It is worth noting that both the 2000 BiOp and the 2004 BiOp that replaced it have been invalidated by a federal court. Thus we find it somewhat peculiar that DEQ would attempt to justify its spill-limiting decisions on the basis of BiOps that were thrown out because they were inadequately protective of fish.

Again, we believe that DEQ is misreading the TMDL to the detriment of salmon and steelhead in the Columbia River, despite its obligation to protect them as a designated beneficial use in the river. According to ORS 468B.015, it is the declared public policy of this state to "protect, maintain, and improve the quality of the waters of the state…for the propagation of wildlife, fish and aquatic life…and other legitimate beneficial uses." Instead, in taking this approach, DEQ is sidestepping the TMDL's directive that they remain adaptive and flexible in its implementation and is failing to adequately protect Columbia River salmon and steelhead.

We believe it is counter to the purposes and requirements of Oregon statute and regulation for DEQ to do anything less than to provide the waiver sufficient to allow the spill necessary to protect fish. It is clear that if only the tailrace monitor were used for compliance or if spill were managed to meet the 120% standard at both the forebay and tailrace monitors, the volume of spill could be substantially greater and more juvenile fish would survive their downstream journey. For these reasons, to the extent that forebay monitors are accurate at all, we urge the Environmental Quality Commission to order a waiver for 120% TDG for both the forebay and tailrace monitors.

3. Convene the TMDL's Adaptive Management Team immediately

If the Environmental Quality Commission declines to take either of the above-recommended approaches to resolving the TDG and spill problems in the Columbia River, **it is imperative that you at least order that the Adaptive Management Team (AMT) provided for in the TMDL be convened immediately to resolve these issues.** Salmon and steelhead cannot wait until 2010 or 2011 for a solution.

DEQ staff have informed us that it is their intention that the AMT be convened "soon" – perhaps as early as 2008. First, we would suggest that 2008 is not soon enough and that this issue really needs to be resolved in time for the 2008 migration and spill season beginning in April. Every year of insufficient spill for fish is another step towards extinction. For this reason, it is important to get this process underway immediately and not wait until next year to start those discussions.

More concerning is that, despite assurances from DEQ staff that the AMT process could start soon, there is nothing in the staff report or the draft order presented to you which would actually require that. Those documents merely say that after 2010 the location of monitors should be consistent with the Adaptive Management strategy and that the process for reviewing the implementation status will begin no later than January 1, 2011. Such an open-ended timetable for resolving these critical and time-sensitive issues is unacceptable.

We would thus ask the Environmental Quality Commission to recommend a quicker and more definitive schedule for the convening of the AMT. We recognize that the Washington Department of Ecology is technically tasked with convening the AMT, but we believe that your recommendations will carry great weight with them in setting that timetable.

Conclusion

The knowledge gained during the past 13 years of spill management on the Columbia River have made it apparent that changes are necessary to the waiver criteria regarding both the use of the 115% forebay limitation and the use of forebay monitors for TDG compliance at all. It seems clear that these monitors do not accurately represent the measurements of TDG and efforts to relocate them have not addressed the inaccuracies.

Sadly, ESA-listed salmon and steelhead are bearing the brunt of these inaccuracies. It bears repeating that these fish were shorted 4.1 MAF of spring spill in 2006 because the Corps managed spill to meet a 115% forebay standard instead of a 120% standard. To be sure, many more fish would have survived their downstream journey with more than 4 million acre feet of additional spill to aid in their migration. Higher TDG readings at the forebay monitors have resulted in an unnecessary limitation of protection measures for these fish.

Biological monitoring conducted over the last decade and more has illustrated the minimal impact to migrating salmonids, resident fish, and invertebrates when TDG levels are at 120% or less. We believe that management of the spill program to the 120% tailrace criteria assures the safety of aquatic organisms while also meeting the biological objectives of the program.

For all the above reasons, we therefore ask you to grant the Corps' water quality standard waiver request; to modify it to delete the forebay monitoring requirement, or at the very least grant a waiver setting both forebay and tailrace standards for TDG at 120%; and, failing this last item, to recommend the immediate convening of the Adaptive Management Team to resolve these critical issues.

Thank you for the opportunity to speak before you today and I'm happy now to address any questions you may have.

GENERAL COUNCIL
and
BOARD OF TRUSTEES

CONFEDERATED TRIBES
of the
Umatilla Indian Reservation
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Testimony Of
N. Kathryn Brigham
Confederated Tribes of the Umatilla Indian Reservation
Before The
Oregon Environmental Quality Commission
June 21, 2007

Good afternoon. Thank you for the opportunity to testify before the Oregon Environmental Quality Commission.

My name is N. Kathryn Brigham. I am the Secretary of the Board of Trustees of the Confederated Tribes of the Umatilla Indian Reservation. I am also the Secretary of the CTUIR's Fish and Wildlife Commission (where I have served for almost three decades), and the Secretary of the Columbia River Inter-Tribal Fish Commission or "CRITFC" (which I helped establish in 1976).

Finally, I am a tribal fisher. My family and my tribe have fished the Columbia River and its tributaries for salmon and other fish for generations. The health and well-being of the salmon resource for the next seven generations and beyond are my primary concern. That is why I am here.

The Confederated Tribes of the Umatilla Indian Reservation, and other tribes with Treaty Rights to fish, support the waiver requested from the EQC that would allow additional spill at the federal dams. As you know, Oregon has supported spill by granting similar waivers in the past, most recently in 2003. This waiver would provide greater protection to migrating salmon. Increased spill allowed by the waiver will increase overall salmon survival. The goal of fisheries co-managers is to save fish with this waiver, not kill them with reduced spill if the waiver is denied. It's that simple.

Under the Clean Water Act, water quality standards are established to protect the beneficial uses of our lakes, rivers and streams. The standard for Total Dissolved Gas (or "TDG") in the Columbia River was established to protect the salmon beneficial use.

Water with the "right" or "appropriate" level of dissolved gas is ***not*** the beneficial use. Salmon and other fish are the beneficial use. ***Ensuring safe levels of dissolved gas in the river and at the dams is the means to an end—not the end itself.***

Establishing and following the standard is the means to support the beneficial use, the ultimate goal. Implementing the standard, however, must not occur to the detriment of the beneficial use, our shared fishery. Adjusting the standard, via a waiver, is necessary and appropriate where it better protects the beneficial use.

Failure to grant this waiver would result in ***greater*** harm to salmon. Spill—the safest passage route for migrating fish past the dams—will be unnecessarily constrained if the waiver is denied.

The CTUIR encourages you to approve the waiver ***with the modifications as described by the professional fish managers*** with CRITFC, the Oregon Department of Fish and Wildlife and the Washington Department of Fish and Wildlife in their February 1, 2007, comments to DEQ. Those comments are attached to the written copy of my testimony for the record.

The fish managers have found that relying on current forebay monitoring of dissolved gas is misguided and ***ultimately harmful to salmon***. As even NOAA Fisheries has indicated, TDG data from forebay monitoring make no sense. This flawed information should not play a part in assessing dissolved gas conditions.

To do so would lead to the unwarranted limitation of spill. ***The end result would be increased salmon mortality, not less.*** More salmon would be killed because of reduced spill than would be protected by slightly less dissolved gas in the river.

We ask that you suspend forebay monitoring and not use its results until the obvious problems with them can be addressed and corrected. ***We do not believe that the TMDL for dissolved gas in the Columbia River mandates that clearly inaccurate, invalid data be used to ultimately cause additional, unnecessary harm to a beneficial use.***

Certainly the TMDL's requirement to maintain required spill "as measured at the fixed monitoring stations both in the forebay and the tailrace of each dam" ***is based on the assumption that those monitoring stations would produce accurate, valid data***. Relying on monitoring results, known to be faulty, to needlessly limit spill and harm fish, might be described as arbitrary and capricious decision-making.

If forebay monitoring continues, the CTUIR asks that you ***modify the standard to be 120% in both the forebay and the tailrace***. The TMDL does not specifically require or specify 115% as the standard for the forebay. The source of that figure is the 2000 Biological Opinion for the federal dams. The 2004 Biological Opinion references the earlier Opinion and its use of that standard.

Both the 2000 and the 2004 Biological Opinions were declared illegal under the Endangered Species Act by the Oregon Federal Court. The District Court was upheld on appeal to the Ninth Circuit Court of Appeals. The standards in two invalidated Biological Opinions should not be

controlling in these circumstances. At most, whether they continue to apply is unclear and undetermined. A new Opinion is currently being developed, by order of the Court under its continuing jurisdiction.

Modifying the standard—raising it to 120% in the forebay—would permit continued monitoring with the existing system (if that is absolutely necessary). It would lead to increased passage benefits from additional spill. It would still adequately protect fish from excessive dissolved gas. Close and careful monitoring for signs of gas bubble trauma should, and would, continue, and spill could be adjusted if problems occurred.

The CTUIR also asks that the waiver require convening the Adaptive Management Group ***immediately*** to address the undisputed problem with current forebay monitoring. The Group should be required to develop recommendations that can be used in time for next year's spill season.

The draft EQC order should be revised to reflect these requirements. Currently the draft order says that "[t]he process for reviewing the implementation status of the . . . TMDL will begin no later than January 1, 2011."

There is no reason why the Adaptive Management Group cannot be convened now. Again, the source for this date is apparently the 2000 Biological Opinion for the federal dams, which would have been in effect through 2010. Again, this Opinion was deemed illegal. It was also replaced by a later (also illegal) Opinion. Its schedules and timelines are irrelevant.

Finally, we also request that you grant the waiver that would allow ten days of spill in March at Bonneville Dam. ***This spill provides significant benefits for migrating juvenile survival and adult returns of Spring Creek Hatchery salmon.***

Commissioners, Director Hallock, the spills currently being implemented at the dams are an accomplishment that Oregon, the tribes and everyone who is invested in salmon recovery knows to be a critically important improvement for fish migration. Together we need to protect and where possible enhance this vital protective tool. Spills are an important mechanism that allows the Columbia River to function more like a river—to flow again. Our fish are able to migrate more safely in a moving river, as they have done for so many centuries. Salmon recovery is a priority for both Oregon and the Confederated Tribes of the Umatilla Indian Reservation, and we have partnered successfully to change conditions for the better. Let's do that again in improving this waiver to maximize the benefits of spill.

Thank you for your consideration of our concerns on this matter before you today.

Columbia River Inter-Tribal Fish Commission
Oregon Department of Fish and Wildlife
Washington Department of Fish and Wildlife

February 1, 2007

Ms. Agnes Lut
Columbia River Coordinator
Oregon Department of Environmental Quality
Water Quality Division Watershed Management Section
811 SW 6th Avenue
Portland, OR 97204

Re: Request for Comments: Proposed Waiver to the Total Dissolved Gas Water Quality Standard for the Mainstem Columbia River

Dear Ms. Lut:

The Columbia River Intertribal Fish Commission, Washington Department of Fish and Wildlife and Oregon Department of Fish and Wildlife are submitting the following comments and recommendations for your use when reviewing an application by the U.S. Army Corps of Engineers (Corps) for a waiver to Oregon's total dissolved gas (TDG) standard for the purpose of voluntarily spilling water at the four lower Columbia River dams to assist in the passage of out migrating threatened and endangered salmonids. As you know, the current Oregon waiver is in effect through August 31, 2007. The Corps has requested that a year-round waiver be adopted that continues the existing TDG limits and locations. We recommend granting the requested waiver with the following modifications as described below. We have attached a Joint Technical Memo from our staff that identifies and addresses key technical issues with the Corps application to continue the current TDG limits and monitoring location criteria in the next waiver.

Summary of key issues:

1. **Lack of reliability and accuracy of forebay monitoring-** The forebay monitoring sites were originally established in 1994 as a measure of TDG in mixed waters and to represent the long-term exposure of juvenile migrants throughout the migration corridor, including forebays where delays in migration can occur. Extensive monitoring data and research since then, however, have shown that it is nearly impossible to obtain valid measurements of TDG levels that represent upstream dissolved gas levels from spill operations or are representative of a mixed water column due to problems with monitor locations and interference from other environmental factors that affect TDG readings. We have observed that small localized changes in water temperature and wind can cause significant increases in

TDG measurements not related to spill operations and management. The 2000 Biological Opinion on operations of the Federal Columbia River Power System directed the Corps to evaluate and make changes in location of fixed forebay monitoring sites as warranted. Efforts to relocate the monitors and place them deeper in the water column to more accurately represent a mixed state have been unsuccessful in improving their efficacy.

2. **Unnecessary restriction of biological benefits due to spill management based on forebay monitoring-** The biological benefits of the voluntary spill program, as contemplated in the 2000 Biological Opinion, has been frequently and unnecessarily constrained due to management of TDG based on forebay monitoring. This constraint has reduced spill to levels significantly less than those planned and analyzed in relevant biological reviews, e.g. NOAA Fisheries biological opinions. This is particularly troublesome given that the data collected in the forebay may be biased high due to problems with the forebay monitor readings. If spill and TDG management were based on tailrace monitoring alone, spillway passage and salmon survival can be substantially increased. Spillway passage has consistently been shown to provide the safest passage route at mainstem Columbia River dams.

3. **Management of spill and TDG based on tailrace monitoring will not increase risk to fish-** Extensive biological monitoring of juvenile and adult anadromous and resident fish in the Snake and Columbia rivers has shown that managing spill and TDG based on tailrace monitoring and the 120% TDG tailrace criterion poses little risk to fish resources. Since 1995, nearly 200,000 juvenile salmonids have been examined for gas bubble disease (GBT) symptoms and less than 2% were observed with any symptoms (and most of these had minor symptoms) when spill was managed to 120% TDG in the tailrace. Biological monitoring and research of GBT symptoms in adult salmonids and resident fish show similar findings of nominal symptoms.

We make the following recommendations for the new waiver:

1. **Develop a plan to resolve forebay monitoring issues-** The new waiver should acknowledge the problems with the accuracy and reliability of forebay monitoring and include recommendations that the Corps continue working with fish managers to resolve forebay monitoring issues.

2. **Suspend, in the near term, the use of forebay monitoring in spill management-** Until the forebay monitoring problems are satisfactorily resolved, include only tailrace monitoring and use of existing 120% TDG criteria as a requirement to manage the spill program. The use of forebay monitors should be included in the monitoring program only after it has been demonstrated that the readings are accurate and representative of the true dissolved gas levels fish are experiencing.

3. **Continue the existing biological monitoring program-** Monitoring and research results over the last 12 years indicate that our recommended interim strategy of managing only to the tailrace monitoring criteria of 120% TDG, poses no biological

risk to fish. However, the current biological monitoring program to assess effects of the spill program on incidence of GBT in fish should be continued as a safeguard to ensure that the Columbia River's designated and existing beneficial aquatic uses under the Clean Water Act are met.

Our staff is available to answer any questions you may have about our technical analyses or our recommendations. Thank you for the opportunity to provide comments on the Corps' application.

Sincerely,

Olney Patt, Jr.

Olney Patt, Jr. (Columbia River Inter-Tribal Fish Commission)

Ed Bowles

Ed Bowles (Oregon Department of Fish and Wildlife)

Guy Norman (Washington Department of Fish and Wildlife)

Attachment: JTS Tech Memo

State, Federal and Tribal Fishery Agencies Joint Technical Staff Memo

To: **Rob Lothrop (Columbia River Inter-Tribal Fish Commission)**
Sharon Kiefer (Idaho Department of Fish and Wildlife
Tony Nigro (Oregon Department of Fish and Wildlife)
Bill Tweit (Washington Department of Fish and Wildlife)
Howard Schaller (US Fish and Wildlife Service)

From: **Bob Heinith (Columbia River Inter-Tribal Fish Commission)**

Russ Kiefer (Idaho Department of Fish and Wildlife)

Ron Boyce (Oregon Department of Fish and Wildlife)

Cindy LeFleur (Washington Department of Fish and Wildlife)

David Wills (US Fish and Wildlife Service)

Date: **January 31, 2007**

Subject: **Technical Comments on the U.S. Army Corps of Engineer's application for a waiver to Oregon's total dissolved gas standard**

Contained within this memorandum are our technical comments on the U.S. Army Corps of Engineers' application for a waiver to Oregon's total dissolved gas standard for the purpose of voluntarily spilling water at the four lower Columbia River dams to assist in the passage of out migrating threatened and endangered salmonids (salmon and trout) and other anadromous species such as Pacific lamprey. The spilling of water introduces air into the spilled water and results in total dissolved gas saturation in excess of Oregon's total dissolved gas water quality standard, 110 percent relative to atmospheric pressure.

The applicant requests continuing the current total dissolved gas waiver limits of 120 percent total dissolved gas (TDG) in the tailrace and 115 percent TDG in the forebay. The applicant requests waiver compliance to be measured by fixed monitoring stations located in the

tailwater downstream of the aerated zone below the spillway at each mainstem dam, and in the forebay of the next project downstream.

As in past years we support the applicants' request for a five-year waiver of the total dissolved gas standard to assist fish passage past the Columbia River hydroelectric projects via non-turbine and screen bypass routes. However, DEQ should carefully consider the technical information presented here in their consideration of how and where the total dissolved gas is measured. We believe that lack of accuracy and reliability of TDG monitoring in the forebays of hydroelectric projects and at the Camas/Washougal station downstream of Bonneville Dam may unnecessarily restrict the ability to provide spill in a manner consistent with the original objectives for the waiver. Data collected and studies since that time strongly suggest that it is nearly impossible to obtain valid measurements at the forebay monitoring locations that represent upstream spill total dissolved gas levels or are representative of a mixed water column due to monitor placement problems and confounding effects of environmental conditions (see DeHart. November 16, 2006 Comments on Corps of Engineers 2006 Draft Water Quality Plan. Attachment 1)

The dissolved gas criteria associated with the waiver were to assure that mortality to salmonids and other species occurring from dissolved gas was substantially less than that due to passage through turbines and screen bypass systems at hydroelectric projects. Over the years, the Biological Monitoring Program, which is part of the DEQ waiver requirements for monitoring, has collected data confirming that managing spill to tailrace total dissolved gas levels of 120% in a controlled spill program provides greater protection to the designated and existing beneficial aquatic uses of the river than was anticipated with the original waiver request in 1995.

1. Outline of the Issue

Supersaturation occurs when a solution contains more of the dissolved material than could be dissolved by the solvent under normal circumstances. Dissolved gas supersaturation in the Columbia and Snake rivers routinely occurs during the spring and summer freshet as a result of water spilling over dams (voluntarily or involuntarily). Total Dissolved Gas (TDG) is the measure of the sum total of all gas partial pressures (including water vapor) in water. TDG can be reported as an absolute overall dissolved gas pressure or relative to atmospheric pressure. Gas bubbles can form in the blood and tissues of aquatic organisms when water becomes supersaturated with gas. This results in "Gas Bubble Trauma" (GBT) in the affected organisms. GBT can, in turn if severe enough, cause rapid acute mortality as well as increase long-term mortality in aquatic organisms.

The original waiver criteria for TDG were established in 1994. This was the first time a waiver had been requested from the water quality agencies for variation from the national standard with the intent of providing survival benefits to migrating juvenile salmonids through additional spill passage. A literature review of past experiments (Spill and 1995 Risk Management (WDFW et al., 1995) had suggested that spill to the 125% TDG level might still have provided benefits to the designated and existing fish uses , but to err on the conservative side, a target of 115% TDG in the mixed waters of the forebay and 120% TDG in the tailrace was adopted. These criteria have been in-place since 1994 along with a biological monitoring program to assess the impacts of the controlled spill program.

The goal of the spill program is to provide benefits to migrating juvenile salmonids and other fish as they pass over dams, while not imposing harm from exposure to dissolved gas that outweighs the benefits of spill. The project forebay TDG monitors were originally intended to represent a mixed cross section in the river just upstream of the dam. The tailwater instruments are located immediately downstream of the projects, often in spillway releases downstream of aerated flow, and prior to complete mixing with powerhouse releases. The ability to adequately monitor TDG is extremely important and the question of whether, or not the forebay monitors reflect the actual picture of the potential harm that could occur from TDG has been an uncertainty from the beginning of the monitoring program.[1] While the tailwater instruments are also affected to some degree during periods of non-spill by the same processes that cause errors in forebay readings, the physical process of spilling water sufficiently mixes the water column such that the tailwater monitors adequately represent the mixed water column measurement of TDG due to spill.

In 1994, the Oregon Department of Environmental Quality (DEQ) and the Washington Department of Ecology (DOE) granted variances from the 110% TDG standard for the first time. The waiver allowed TDG to reach 120%, which was defined as the 12 highest hourly readings measured at monitoring sites about a mile downstream of the dams. The maximum instantaneous allowable TDG specified was 125%. At Bonneville Dam the location designated was at Hamilton Island, approximately 1.5 miles downstream of the dam. The monitoring locations were not permanent monitoring sites and data were collected using a manually deployed probe that took readings from 2-4 times in a 24- hour period.

In March of 1995, the National Marine Fisheries Service reissued (NMFS 1995) its 1994-1998 Biological Opinion (BIOP) (NMFS 1994), which included several directives relative to the concentrations and monitoring of total dissolved gas levels that were different from the1994 program. This BIOP originally developed the 115/120% TDG standard for monitoring that continues to be implemented today. The BIOP states that "until it can be determined how tailrace monitoring stations relate to the river reaches between monitoring sites and how TDG data collected at these sites relate to fish experience, forebay monitoring data will be used for in-season management"... "Spill will be reduced as necessary when the 12 hour average TDG concentration exceeds 115% of saturation (or as limited by state water quality standard modifications) at the forebay monitor of any Snake or lower Columbia river dam or at the Camas/Washougal station below Bonneville Dam or another suitable location to measure accurately chronic exposure levels. Spill will also be reduced when 12-hour average TDG level exceeds 120% of saturation (or as limited by state water quality modifications) at the tailrace monitor at any Snake or lower Columbia river dams."

It was in this document that the Camas/Washougal site was established to represent a downstream forebay location below Bonneville Dam. The forebay sites were established as a measure of TDG in mixed waters and to represent the long-term exposure levels of migrants throughout the migration corridor. NMFS (NOAA Fisheries) expresses most concern for

[1] Since the original TDG wavier for fish was issued by DEQ, it has been determined by the region's fishery agencies and tribes that forebay monitors measure a host of variables, including but not limited to solar influence, temperature, and biological processes, thus, they are not representative of spill affects at upstream dams. These local process can bias forebay TDG readings.

migrating juvenile salmonids that are delayed in forebay locations for several hours to days at elevated gas levels. The use of a 12- hour average, rather than a 24-hour average, was chosen to provide a conservative measure of total dissolved gas.

Since 1995, the annual monitoring of TDG has been according to the guidelines established in the 1994-1998 Biological Opinion. However, as stated previously, the use of the forebay and Camas/Washougal sites have been problematic since the beginning of the program. In 2000, NOAA Fisheries addressed the concern regarding forebay monitors and included in their Biological Opinion a reasonable and prudent alternative (RPA 132), which states "The Action Agencies shall develop a plan to conduct a systematic review and evaluation of the TDG fixed monitoring stations in the forebays of all the mainstem Columbia and Snake river dams (including the Camas/Washougal monitor)...The Action Agencies shall conduct the evaluation and make changes to the location of the fixed monitoring sites, as warranted, and in coordination with the Water Quality Team." The COE conducted several tests at project forebay FMS stations in the lower Snake and Columbia rivers and found that several stations experienced thermally induced TDG pressure spikes during the test periods indicating down welling of warm surface waters, resulting in non-representative spiking of TDG (Carroll, 2004).

Based on a study conducted for RPA 132, the COE recommended the relocation of several monitors to address the impact that the daily spike in temperature had on TDG readings. The monitors were relocated upstream of the dam face and the transducers were placed deeper in the water column where daily spikes in temperature were supposed to be minimized. However, based on the three separate analyses that were conducted by the Fish Passage Center (September 29, 2006 memo to Fish Passage Advisory Committee) (Attachment 2), it was concluded that forebay monitors still do not accurately reflect the TDG of mixed waters and continue to be impacted by localized processes. Measures (relocation) taken under RPA 132 to assure that the forebay monitors were representative of mixed water at several of the projects did not achieve that objective.

2. Spill Restriction Based on the Forebay Monitoring Requirement

Spill amounts were included in the 2000 Biological Opinion and reiterated in the 2004 Biological Opinion that were part of a suite of measures designed to meet viability standards under the Endangered Species Act. The following table shows the spill amounts that were modeled for the 2000 BIOP spill measures compared to pre-season spill amounts estimated for 2006 (2006 Water Management Plan) and for 2007 (Draft 2007 Water Quality Plan) using the 115% forebay and 120% tailrace criteria, and to spill amounts that would be provided based on a 120% tailrace criteria using 2006 flow data if the 120% tailrace reading was the point of compliance (FPC memo to FPAC, September 29, 2006). From the table it can be seen that the pre-season estimates of spill amounts in 2006 and 2007 were less than that assumed in the 2000 BIOP especially for Snake River projects. Spill amounts would approach the assumed BIOP amounts if spill was managed based on tailrace 120% TDG criteria.

Table 1. Spill amounts (kcfs) assumed in modeling for 2000 BIOP, estimated spill amounts for 2006 and 2007 to meet 115% forebay/120% tailrace TDG criteria, and estimated spill amount to meet 120% tailrace criteria using 2006 flow data.

Project	2000 BIOP Modeling	2006 Planned Spill to Meet 115/120 TDG Criteria (2006 Water Management Plan)	2007 Spill Planned to Meet 115/120 TDG Criteria (Draft 2007 Water Quality Plan)	Spill to Meet 120 TDG Criteria Based on 2006 Flow Data
LGR	60	42	40	54
LGO	45	32	20	51
LMN	40	40	25	39
IHR	105N/45D	105	95	76
MCN	135 (120-150 range)	155	170	179
JDA	85 Kcfs or 60% (70-100)	95	110	133
TDA	230 or 64%	91	110	147
BVL	135 (120-150)	100	115	101

Over the past several years, (Table 2) there have been several instances where TDG levels were exceeded at the forebay monitors, while the upstream tailrace monitors were in compliance. During spring 2002-06 at Snake River projects and McNary, exceedences of forebay criteria constituted a high proportion of total exceedences and proportion of days where the forebay monitor was in exceedence but the upstream tailrace monitor was not (Table 2). This table includes all days when monitors were exceeded and does not distinguish between controlled and uncontrolled spill. In addition, there were times when actions were taken to decrease spill when possible if forebay monitors exceeded the 115%, while tailrace monitors below the upstream project did not exceed 120%.

Table 2. Total number of exceedences per year and proportion of total where forebay exceeded 115% and tailrace did not exceed 120%.

Project Forebay	Total Number of Exceedences in Spring Spill Season (Apr 3-June 20 - Snake R.; Apr 20-June 30 - Columbia R.)	Number of Days that Forebay was in Exceedence but Upstream Tailrace was Not	Proportion of Total Exceedences where the Forebay was in Exceedence while Tailrace was Not
Lower Granite*			
2002	22	5	0.23
2003	12	3	0.25
2004	1	1	1.00
2006	38	10	0.26
Little Goose*			
2002	41	36	0.88
2003	19	13	0.68
2004	1	1	1.00
2006	54	35	0.65
Lower Monumental*			
2002	24	20	0.83
2003	37	27	0.73
2004	4	3	0.75
2005	6	0	0.00
2006	52	23	0.44
Ice Harbor			
2001	5	5	1.00
2002	31	25	0.81
2003	20	16	0.80
2004	12	10	0.83
2005	15	12	0.80
2006	39	17	0.44
McNary*			
2002	33	3	0.09
2003	22	10	0.45
2004	7	0	0.00
2005	3	2	0.67
2006	40	10	0.25
John Day*			
2002	28	6	0.21
2003	10	10	1.00
2004	5	5	1.00
2005	8	4	0.50
2006	47	14	0.30
The Dalles*			
2002	31	22	0.71
2003	17	13	0.76
2004	1	1	1.00
2005	3	3	1.00
2006	46	37	0.80
Bonneville			
2001	2	2	1.00
2002	48	35	0.73
2003	31	30	0.97
2004	8	8	1.00
2005	14	14	1.00
2006	64	12	0.19

* Data for 2001 and/or 2005 missing for sites where no exceedences were recorded during spring spill season

3. Biological Rationale

A. TDG and Fish Physiology

The potential for adverse effects of dissolved gas to Columbia River aquatic species may seem complex but is fairly easy to understand. The gases of concern are those comprising the atmosphere on earth, i.e., 80% nitrogen, 20% oxygen and a few trace gases. The presence of dissolved gases is measured by the pressure they exert, measured in mm Hg. The measured pressures are compared to atmospheric pressures. If there is more gas in the water due to spill at hydroelectric projects or due to many other causes than the gas pressure (atmospheric) at the surface of the water, then it is referred to as supersaturated and the percentage above the atmospheric pressure is calculated.

Several environmental factors affect the solubility of the composite gases of air. If there are changes in these factors it alters the pressures exerted by those gases, thus, can affect the degree of saturation. Increasing water temperature, falling barometric pressure, and biological activity (respiration) cause an increase in the partial pressures of the individual dissolved gases. Decreasing water temperature, photosynthesis, and a rising barometer have the opposite effect. Wind, although it does not affect gas physics, can decrease the amount of gases in river water by stripping it at the surface. When evaluating the gas level due to one factor, e.g., spill, the other factors must be considered.

Table 3 shows the dramatic influence environmental factors, e.g., water temperature, dissolved oxygen, barometric pressure, wind, photosynthesis, and biological respiration may have on the TDG measurements recorded in a monitoring program. Of great significance to management of voluntary spill is the length of time that elapses from the instant of spill and the TDG measurement. The table portrays the labile nature of TDG measurements. The table information represents changes in measurements that occurred in the 25 mile transit from Bonneville Dam to the Camas/Washougal monitor. The table shows that monitors located miles downstream of the spill site could on a calm warm afternoon during the spill season yield a TDG measurement that has a 5-6% error due to environmental factors. Management to the forebay monitor readings of TDG would result in a reduction of spill, while the tailrace of the upstream project was in compliance.

Table 3. Example of the effect of environmental variables on the concentration of TDG measured downstream of Bonneville Dam.

Factor	Change	Units	TDG Response
Water Temperature	Increase	1 °C	~3.0 °
Barometer	Increase	7-8 mm Hg	~1.0%
Photosynthetic Oxygen	Increase	1 mg/l	~2.0%
Wind	Decrease	18 mph	~5.3%

Aquatic organisms living in a supersaturated river, depending on dissolved oxygen for their metabolic oxygen will tend to come into an equilibrium state with the level of dissolved gases surrounding them. As long as the organism remains in a physical environment that maintains the dissolved gas within it tissue to be equal to the dissolved gases in the water, no gas bubbles can form. For example, as long as the organism remains at adequate depth, benefiting from the hydrostatic pressure, the gases in its tissues will remain at equilibrium. However, if the organism ascends or sounds the gas balance will reflect the pressure change. Ascent will place the organism tissues in an unsteady, supersaturated state. The tissue gases tend to return to a gaseous phase as bubbles and blisters referred to as GBT. Sounding will increase the solubility of the gases and serve to protect the organism.

Dissolved gas affects all aquatic biota similarly, whether salmonids, resident fish or invertebrates. The biological effect is a function of dose response as moderated by hydrostatic pressure, that is, depth. Each meter of depth equates to 10 % of depth compensation. This means that the organisms' depth determines the biological effect of exposure to water supersaturated with atmospheric gas. If the Corps' Fixed Monitoring Station records a gas level of 120% supersaturation, it is referring to a gas level relative to water surface pressure. This same gas content at 1 m is only 110% supersaturated due to the compensatory influence of hydrostatic pressure. At 2 m it is in equilibrium, i.e., it is no longer supersaturated. The same is true of fish or invertebrate tissue levels of gas. If the fish or invertebrate tissues are equilibrated with the ambient level of dissolved gas and the water total dissolved gas is 120% relative the surface, the organisms cannot develop GBT if they are at 2 meters or more in depth. In short, GBT is the result of uncompensated hyperbaric pressure of TDG (see Figure 1). It is the same for all fish, salmonid or resident species, as well as invertebrates. Beeman and Maule (2006) found that juvenile salmon and steelhead hydrostatic compensation resulting from migration at depth in the water column was sufficient to protect them from gas bubble disease during the controlled fish spill program.

The dose response effect is a function of the difference in gas pressure in the water compared to organism tissue level. If a fish is at equilibrium with water at surface atmospheric pressure (100%) the fish gas physiology is stable. If the fish moves into water with a level of supersaturation the greater the supersaturation the more rapid will be gas uptake by the fish or other aquatic organism. The greater the differential between water TDG and tissue TDG the more rapid will be the tissue uptake of gases. At this point one needs to consider depth compensation, which is the effect of pressure on the potential for development of GBT (Figure 1). A fish with tissue gas levels equal to 130% supersaturation at the surface will not show GBT as long as it stays below 2m from the surface where its tissue will only be 110% supersaturated.

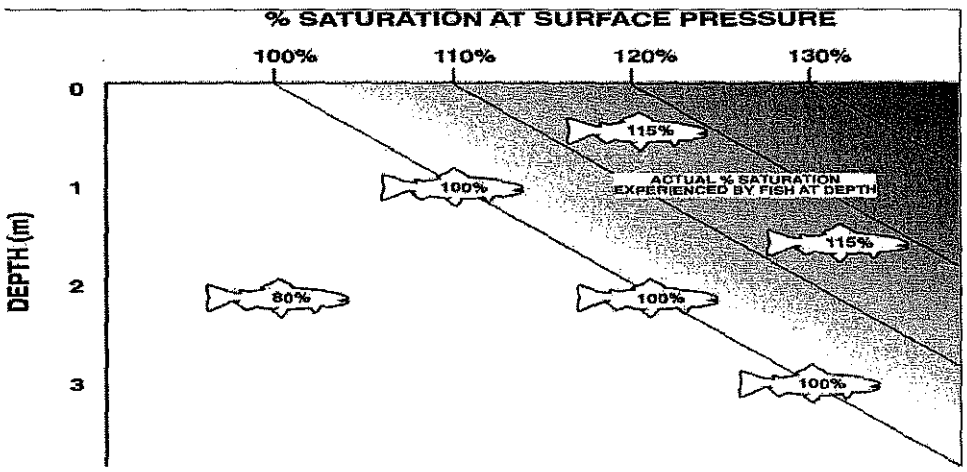

Figure 1. Compensatory effects of depth (hyperbaric pressure) on fish exposed to supersaturated water.

B. Biological Monitoring

Juvenile Salmonids

Since 1995, the biological monitoring program has recorded annually the effects of the FCRPS biological opinion spill program and effects of TDG on incidence of GBT. The data observed over the years through the biological monitoring has consistently shown very low incidence of GBT when gas levels are at the 120% tailrace criteria. When fish are exposed to gas levels greater than 120%, there is an increasing trend in incidence and severity of these signs (Figure 2). For all fish examined through the Smolt Monitoring Program for signs of GBT when tailrace TDG levels were 120% or less the incidence of any fin signs observed in that population was 0.5%. This demonstrates a minimal effect of biological opinion spill levels over the last 11 years with TDG levels managed to 120% in the project tailrace. The percentage of fish with severity of GBT symptoms begins to increase above 120% and then dramatically increases above 125%.

The 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)* and the NMFS' 2000 Biological Opinion for the Federal Columbia River Power System (NMFS 2000) found that dissolved gas levels of 120% saturation 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. 2002a.[2]

[2] These researchers found that Gas Bubble Trauma was not detected in most of in-river migrants sampled from 1996-1999. This included fish sampled during two very high flow years where spill was at uncontrolled levels through the Federal Columbia River Power System.

Adult Salmon

Adult salmonids were monitored for signs of GBT through the 1999 spill season. Few signs of GBT were observed at TDG levels within the waivers. Additionally, juveniles are more susceptible to GBT, and if they are being monitored adequately the adults will also be protected (L. Marsh, Oregon Department of Environmental Quality, memorandum to the Environmental Quality Commission, March 27, 2000). Physical handling of adults adds extra stress.

Backman and Evans (2002b) found that in samples of 4,667 adult chinook salmon, fish were rarely observed with gas bubble trauma, despite sampling large numbers when total dissolved gas exceeded 130% saturation. Specifically, Backman and Evans (2002b) found no statistically significant relation between total dissolved gas and gas bubble trauma for chinook salmon. For adult sockeye and steelhead, Backman and Evans (2002b) found that 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%.

Resident Fish and Invertebrates

The requested TDG variance is expected to have minimal impacts on resident fish or macro invertebrates in the Columbia River. The NMFS monitored resident fishes and aquatic invertebrates in the Columbia River downstream from Bonneville Dam for signs of GBT in 1993, 1994, 1995, and 1996. Organisms sampled included northern pikeminnow, bass, perch, catfish, crappie, sturgeon, shad, suckers, chub, sculpins, sticklebacks, minnows, crayfish and other crustaceans, clams, snails, and insects. Sampling in 1993 revealed a very low incidence of GBT in prickly sculpin (0.6%; 1 of 174 fish); peamouth chub, (0.4%; 1 of 238 fish); and threespine stickleback (0.2%; 2 of 906 fish). No signs of GBD were seen in the three species of invertebrates (crayfish, Asian clam, and dragonfly larvae) that were examined (Toner and Dawley, 1995). In 1994, no signs of GBT were observed in any of the 4,955 resident fish or 3,928 invertebrates that were examined (Toner et al., 1995). During 1995, signs of GBT were noted in five species of resident fish, but never exceeded 1% of those fish examined (Dawley and Schrank, 1995).

In 1997, resident fish were collected and examined for the TDG biological monitoring program in the Columbia River. Fish that were examined included peamouth, largescale sucker, mountain whitefish, northern pikeminnow, stickleback, redside shiner, sculpin, sandroller, pumpkinseed, and carp. A total of 214 individual fish of these resident species were examined for external signs of GBD. No signs of GBT were seen on any of those fish.

In 1998, only largescale suckers and mountain whitefish were examined. No signs of GBT were observed in these fish. In 1999, largescale sucker, northern pikeminnow, stickleback and sculpin were examined. Again, no signs of GBT were observed.

In addition, many of these resident species occupy shallow near shore areas that are out of the main current of the Columbia River. Such areas typically have lower total dissolved gas concentrations than those in the main current. Toner et al. (1995) indicated that the lower TDG levels in the shallow backwater and shoreline areas may be due to the lack of exchange with

higher TDG water in the main river. Faster dissipation of gas from shallow water was also thought to occur because of its higher surface area to volume ratio.

Ryan et al. (2000) found only 3.9% of the almost 40,000 non-salmonid resident fish sampled (27 species) in the mid-Columbia and lower Snake rivers, Washington, showed signs of GBT during spring spill periods in 1994-1997, with TDG reaching above 135%. They concluded that GBT signs were rare in non-salmonid resident fish when TDG levels were less than 120%. Signs of GBT were rare with the invertebrate samples taken.

In work conducted with resident fish behavior relative to TDG supersaturation in the Lower Clark Fork River in Idaho, Weitkamp et al. (2003a) concluded that the fish behavior of the resident fish greatly influenced the degree of supersaturation the fish actually experience. In further work on the Lower Clark Fork River, Weitkamp et al. (2003b) found that the occurrence and severity of GBT was greatly lower than expected for the TDG levels measured (120-150%). Their conclusion was "... the majority of fish are spending sufficient time at depths that avoid or mediate both the incidence and severity of GBT when TDG supersaturation is in the range of 120-130% of saturation."

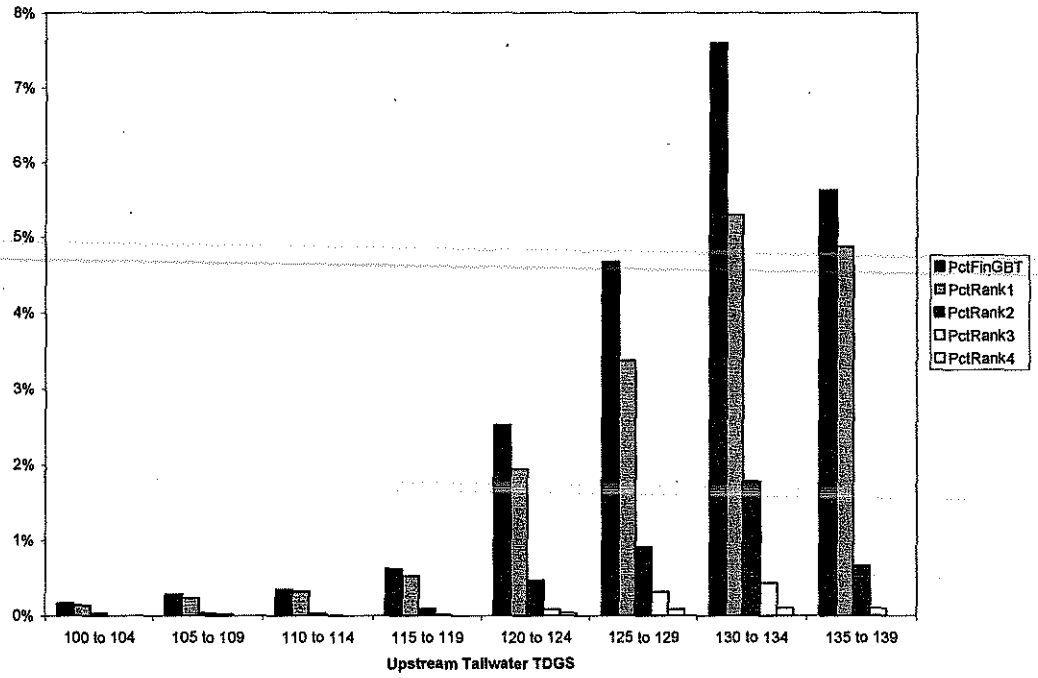

Figure 2. Percentage of all fish examined for GBT at Little Goose, Lower Monumental, McNary and Bonneville dams from 1995 to 2005 that showed GBT symptoms in fins by severity rank and TDG exposure based on upstream tailwater monitor and fish travel time from that site. Fin ranks are: rank 1 – less than 5% fin area covered with bubbles, rank 2 – 5 to 25%, rank 3 – 26 to 50% and rank 4 – greater than 50%.

C. Fish benefits from maintaining spill at the 120% tailrace level.

Spill is a key measure in NOAA Fisheries Biological Opinions to mitigate for the construction and operation of the Federal Columbia River Power System. Several efforts have been undertaken to provide the benefit of spill in terms of fish survival, however it is impossible to adequately determine the direct and indirect effects of spill on survival with existing tools and data. Most biological models rely on monthly time-steps and average fish numbers that make it extremely difficult to capture the effects of changing daily spill management and other conditions affecting fish survival. In addition, the current state of knowledge of the benefit of spill beyond project passage and delayed effects is continually developing. The benefits of spill include the following:

- Spill provides a non-turbine, non-bypass route of passage past a hydroelectric project that has a higher associated juvenile survival benefit than turbine and screened system passage routes (NOAA 2000a). In addition, recent data suggests there may be some delayed effects of hydrosystem passage especially with bypass routes that are not manifested in juvenile survival. These effects show in smolt to adult survival rates and are due to passage through the hydrosystem. Passage through multiple bypass systems seems to exacerbate the issue reinforcing the positive benefits of spill.
- Since fish transportation does not provide a positive benefit for all species, the agencies and tribes recommend a spread-the-risk management strategy to allow 50% of the fish to migrate in-river primarily through spill and/or other surface passage routes. The effectiveness of the hydro projects at collecting fish and low current spillway passage efficiency makes it difficult to achieve this objective and in most years significantly more than the 50% of fish are transported. In the interim, spill is the primary means to achieve the spread-the- risk management strategy.
- Spill decreases forebay residence time, decreases migration rate (or travel time) and increases survival. Decreasing travel time has been shown to decrease exposure time to in-river predation. Also, survival to adult is increased when travel time is decreased and fish arrive at the estuary during the "optimal" biological window (Marmorek et al. 2004; Williams et al.).
- Turbulence in tailraces from spill disperses predators and improves survival through this area.

While it is impossible to quantify and represent the total benefit of spill, it is possible to estimate improvements that can be made in increasing spillway passage the route of passage that has been shown to provide the highest survival of any passage route at Columbia and Snake River dams. To illustrate this, we compared the number of fish that would be passed via spillways when spill is implemented under the Court Order spill as was done in 2005 and 2006 where spill was managed to 115/120% TDG criteria to that if the Court Order spill was managed only to the 120% tailrace TDG.

The daily fish collections from the smolt monitoring program, the actual spill that occurred in 2006 and the estimates of the spill passage efficiency (SPE) from the NOAA National Marine Fisheries Service COMPASS model (for Snake River Spring Chinook and Steelhead) were used to obtain daily population estimates. Two different spill levels were

applied to the daily population estimates at each project where smolt monitoring data was available from 2006. The first spill level represents the amount of spill that would have occurred in 2006 managing to the 115/120% TDG levels (after involuntary and excess hydraulic capacity were removed, see Attachment 2, September 29, 2006 Spring Spill 2006 memo for a full description of how these numbers were derived) and the second spill level represent an estimated spill that would have occurred if spill were only managed to the 120% tailrace criteria. Again, the SPE used in this portion of the analysis was from the NOAA Fisheries COMPASS model.

As can be seen in the following table, managing spill to a 115% forebay/120% tailrace TDG criteria can result in substantially fewer fish passing over the spillway at many projects as compared to managing spill based on 120% tailrace TDG criteria. The greatest effect would occur at Little Goose Dam with over 18% fewer yearling chinook passing in spill.

Table 4. Estimated percent increase in numbers of fish passing in spill when Court ordered spill is managed to the 120% tailrace TDG.

Project*‡	Number of Fish Passing Through Spill (under 2006 operations to 115/120% with over-generation and excess hydraulic capacity spill removed) (a)	Number of Fish Passing Through Spill (using spill cap of 120% TDG at tailrace as estimated in Spring 2006 memo) (b)	Percent Change (c)
Lower Granite			
Yearling Chinook	1,996,987	1,996,987	0.00
Steelhead	5,623,601	5,623,601	0.00
Little Goose			
Yearling Chinook	1,233,733	1,459,566	18.30
Steelhead	1,242,498	1,409,044	13.40
Lower Monumental			
Yearling Chinook	2,443,704	2,824,271	15.57
Steelhead	2,287,001	2,563,396	12.09
McNary			
Yearling Chinook	1,159,564	1,163,128	0.31
Steelhead	292,327	292,916	0.20
Bonneville			
Yearling Chinook	1,673,950	1,796,918	7.35
Steelhead	164,399	171,120	4.09

* Ice Harbor and The Dalles are not Smolt Monitoring Program sampling sites and, therefore, fish abundance data were not available for this analysis

‡ John Day not included in this analysis due to difficulties in estimating spill relative to the court order (see attached Spring Spill 2006 Memo for details)

From the table it is apparent that at some projects there could be significant gain in the number of fish passing over the spillway if TDG management is based on tailrace monitoring. Comparable data for 2006 is not available at John Day due to unreliable fish passage data due to unplanned powerhouse unit outages. However, it should be noted that based on TDG monitoring that spill at all lower Columbia River projects is often constrained by forebay TDG monitoring

and it is highly likely that similar increases in spillway passage would be observed at these projects if spill was managed based only on tailrace monitoring.

The current spill program, limited by forebay monitors, is unable to achieve a spread the risk management strategy with regard to the transportation program for Snake River migrants and in-river migrants. Reductions in the spill program caused by the forebay monitors impacts the ability to keep migrants from being collected and transported. Currently the majority of both Snake River Spring Chinook and Steelhead are transported rather than allowed to migrate in river. Due to concerns with screened bypass systems the default operation is to transport fish that are collected and not return them to the river. The best available scientific information indicates that spillway passage is more likely to increase adult return rates as compared to bypass passage. For example: The 2005 NMFS technical memorandum on the effects of the federal Columbia River power system on salmonid populations contained the following pertinent information. In figures 53 & 54 on pages 112 & 113 this report shows the relative SARs between smolts migrating uncollected (primarily through spill) at collector projects and those bypassed. Smolts with only one bypass history had an average SAR 25% less than those migrating uncollected, and in almost half of these comparisons the difference was significant. Therefore the only way to insure a spread the risk strategy for transported migrants versus in-river occurs, is to pass fish over the spillways and through surface spill routes such as the Removable Spillway weirs. Table 5 indicates the recent percentages of juveniles transported. By using the tailrace monitors to govern the spill program closer to 50% of the migrants will be left to migrate in river. Modeling indicates in years when spill is provided at the collector projects ~5-15% more juveniles would be left to migrate in river than transported. The increase in percent of in river migrants varies from year to year given the different flow years and the shape of the run-off and how it impacts TDG readings.

Table 5. Estimated proportion of fish transported from 1999-2006.

Species Group	Transportation Proportion 2006**	2005*	2004*	2003	2002	2001*	2000	1999
Yearling Chinook	.61 (H) .58 (W)	0.92	0.87	0.629	0.683	0.98	0.71	.777 (H) .862 (W)
Steelhead	.76 (H) .79 (W)	0.94	0.964	0.67	0.677	0.986	0.81	0.825
Subyearling Chinook	.56 (H) .52 (W)	0.809	0.972	0.895	0.929	0.962	0.93	0.87

*Spill at the collector projects, (Lower Granite, Little Goose, Lower Monumental, McNary) was not provided in these years.

**Court Ordered Spill Operation

4. Summary

In conclusion, it must be acknowledged that there are problems with managing spill based on forebay monitoring due location of monitors and confounding effects of other environmental variables, therefore, we recommend managing fish spill and total dissolved gas based on 120% TDG measured in dam tailraces as the sole criterion. The fishery agencies and

tribes' "Spill and 1995 Risk Management" assessment originally established a range of 120-125% TDG as the transition zone where the effects of TDG would be increasing, but still very low. This has been reaffirmed by 1) the updated Risk Assessment for the Spill Program in the NOAA 2000 FCRPS Biological Opinion, 2) 12 years of physical and biological monitoring, 3) an independent scientific assessment and, 4) studies in the peer-reviewed literature. Nearly 200,000 salmonids have been evaluated for signs of GBT and less than 2% of those fish were observed with the most minor signs of GBT (less than 5% of a fin covered with bubbles) when spill levels were managed to 120% in the tailraces of dams. This is far less than the biological criteria established for the voluntary spill program of 15% of fish affected with minor signs. This shows that managing spill to 120% TDG criteria in the tailraces is conservative, and best protects the sensitive fishery existing and designated use of the Columbia River.

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November 16, 2006

Mr. Rudd Turner
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Dear Mr. Turner,

Thank you for the opportunity to review and comment on the draft report, Water Quality Plan for Dissolved Gas and Water Temperature in the Mainstem Columbia and Snake Rivers. We are providing these comments given the very short deadline that the COE has provided, however, we may have additional comments at a later date. In general, there has been concern raised over the last several years regarding the implementation of the Biological Opinion and Court Ordered Summer Spill Program under the existing 115/120% total dissolved gas guidelines and the configuration of the physical monitoring stations. The 2000 Biological Opinion addressed the concerns by developing RPA 132, which required the Action Agencies to develop a plan to conduct a systematic review and evaluation of the TDG fixed monitoring system in the forebays of all the mainstem Columbia and Snake river dams. The COE undertook the study and relocated some forebay monitors based on temperature related considerations.

The Fish Passage Advisory Committee asked the Fish Passage Center to conduct a review of the 2006 spring spill program and to review the appropriateness of the forebay monitoring system (FPC memo to FPAC dated September 29, 2006) relative to present water quality waiver requirements. Based on this review, the FPC concludes that the forebay monitors may not be adequately representing the total dissolved gas resulting from spill at upstream projects. Downstream forebay monitors, as presently configured, are not indicative of the readings in a well-mixed water column due to the local influence of temperature, barometric pressure and biological processes.

We believe that the COE should present the issues in the Water Quality Plan and discuss how TDG may be better monitored including, the possibility of setting the waiver criteria to 120% TDG at both the forebay and tailrace monitors based on the gas bubble trauma (GBT) monitoring program data collected over the past twelve years. These data show that the incidence of GBT is much less than 1% of fish sampled and the severity of the signs of GBT are mostly of the least severe Rank 1, where less that 5% of a fin is affected. The COE might also include the possibility of routinely monitoring the concentration of oxygen in the water column to distinguish the partial pressure of gas added to TDG from local biological processes.

The following are the Fish Passage Center's specific preliminary comments:

1. Page 18, para 4 - Total Dissolved Gas (TDG) is the measure of the sum total of all gas partial pressures (including water vapor) in water. It is important to note both the relation of TDG with barometric pressure and temperature particularly at the forebay monitor locations, and the oxygen gas added to the water column by primary productivity. While oxygen can contribute significantly to the overall TDG concentration, it is not regarded as a problem for aquatic organisms since oxygen can be removed from tissues via metabolic activity.

2. Page 21, TDG Fixed Stations – Function and Location – The COE should include a discussion of the limitations of measuring only TDG in the complex situation where fixed monitors are located. In the tailrace fixed monitoring stations it is likely that the TDG measured represents the additional gas added to the water column due to spill, however, at the forebay sites the representation of the additional spill gas is confounded by other gases and physical changes. At the very least the COE should explore the possibility of measuring oxygen at these locations and consider only the partial pressures due to nitrogen increases when assessing against a 115% criterion.

3. Page 22-23. All of the language relative to RPA 132 has been stricken from the text. The COE concludes that the forebay monitor relocation has addressed the issue of misrepresenting the TDG due to spill, and that the only remaining issue that remains is the Camas/Washougal Monitor. While the use of the Camas/Washougal station remains an issue, the issue of the forebay monitors adequately representing TDG associated with upstream spill has not been adequately resolved for the agencies and tribes. The Fish Passage Advisory Committee requested that the Fish Passage Center conduct a review of the impact of the forebay monitors on the implementation of the Biological Opinion spill program. That review was provided in a memo to FPAC dated September 29, 2006 (attached). As a result of that review considerable questions remain concerning the adequacy of the forebay monitors. This section should be rewritten to express regional concern.

4. Page 75. The COE presents their perspective on current water temperature and the relation to historic temperatures. The COE clearly labels the discussion as their perspective and that is appropriate, however, it would be helpful to include alternatives to the COE's perspective since this document talks about input from other entities.

5. Page 83. Section 13.1.3.4 – The reference to some regional interests suggesting that releases that approach 120% would make more sense in the COE included the years when Dworshak was operated to 120% and the results obtained from GBT monitoring that took place below the dam. The discussion would also benefit by including an explanation (i.e. the flexibility to augment flows with higher levels of flow augmentation from Dworshak Dam) when presenting regional interests' suggestions. Additionally, this section should incorporate a discussion of possible modifications to Dworshak Dam that would help alleviate TDG concerns under spill conditions. For instance, are there possible spillway modifications that would decrease TDG.

6. Page 91. The paragraph relative to the merits of transportation should reflect current knowledge regarding the benefits of transportation to the overall survival of wild spring Chinook to return as adults. The results of the Comparative Survival Study shows no benefit of transportation to wild spring Chinook and only marginal benefit to hatchery spring Chinook relative to migrating in-river. Benefits of transportation may be better for hatchery and wild steelhead. The statement in the document regarding the negative impacts to the runs if transportation cannot be implemented need to be revised.

7. Page 96, third paragraph. The last sentence states that "These drawdown scenarios would be expected to decrease the amount of time that water is exposed to solar radiation, however because of the reduced volume of water, the peaks in temperature would be expected to be higher and the water in that stretch of the river would be expected to warm and cool much faster during the daily cycle." The later part of this sentence is misleading and likely untrue. There is much more to consider when discussing peak temperatures. Of particular importance is the surface area of the water body, also the width to depth ratio of a particular stretch of water - wide and shallow stretches would heat and cool faster than a narrow and deep section.

8. Page 96. When discussing the drawdown of reservoirs the COE should also include discussion of an intermediate drawdown of JDA to MOP (approx. five feet lower than MIP).

9. Page 106, third paragraph. As an effect of changing flood control rule curves, the second sentence states " ...if more water were used to flush fish out during the spring, decreased power production would result in the summer and fall." Changing flood control rule curves should not impact summer water. The intent of changing of flood control rule curves would be to reduce winter and early spring power drafts, so reservoirs do not have to work as hard to get to their April 10th elevations. This would reduce power production in the winter and early spring months- not during the summer.

10. Page 106, third paragraph. Pushing more water out in the spring as a result of altered flood control does not necessarily mean more TDG. Changes in flood control would likely benefit juveniles the most during medium and low water years. It is unlikely that during these types of water years, even with more spring water, projects would be in a forced spill situation.

11. Page 124. The paragraph under 15.4.2 is the exact same paragraph that is under 15.3.2 on page 122.

Sincerely,

Michele DeHart

Michele DeHart
Fish Passage Center Manager

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MEMORANDUM

TO: FPAC

Michele DeHart

FROM: Michele DeHart

DATE: September 29, 2006

RE: Spring Spill 2006

The Fish Passage Advisory Committee requested that the Fish Passage Center conduct an evaluation of the spill that occurred this past spring in the Federal Columbia River Power System (FCRPS). The FCRPS spring spill program was provided in response to the 9th Circuit Court's Order for spill and, therefore, the analysis conducted was in the context of the Court Order. In general, the Court's Order was implemented appropriately, but conservatively, within the present guidelines for total dissolved gas (TDG) management. The question arises as to whether the original criteria established in 1995 for total dissolved gas management remain appropriate given the additional knowledge gained since that time.

There were several key points that came from this analysis:

1. The actual spill that occurred (when excess hydraulic capacity and spill in excess of market capacity, or spill due to turbine unit outages, were removed) was considerably less than what could have occurred under the Court's Order (about 4.1 MAF) if TDG were managed to the tailrace monitor.
2. The amount of spill varied from project to project; with a few key projects having the greatest limitation on spill (Lower Monumental, The Dalles, Bonneville and Little Goose) based on the downstream forebay monitor readings.
3. The reason why the spill was significantly less at some projects lies partly due to the real time management of spill to total dissolved gas measurements at the tailrace, but is most significantly related to the management of spill to downstream forebay TDG levels.
4. The use of downstream forebay monitors for measuring dissolved gas relative to spill needs to be addressed. Downstream forebay monitors, as presently configured, are not

indicative of the readings in a well-mixed water column due to the local influence of temperature, barometric pressure and biological processes.

5. In season management of total dissolved gas during periods of overgeneration spill must be managed with consideration of biological objectives, rather than to dissolved gas objectives alone.

Assessment of Spill for Spring 2006

Appendix A contains graphic representations of the actual spill that occurred in the spring of 2006 relative to the Court's Order. From the graphs it can be seen that spill occurred in three distinct time periods, first when flows were manageable, second when flows exceeded hydraulic capacity of the projects and third, when flows were manageable at most project's but spill was high due to a lack of market for the electricity. When flows were less than powerhouse capacity, spill was managed to the waiver requirements of 120% total dissolved gas in the tailrace and 115% total dissolved gas in the next downstream forebay monitor. At some projects spill exceeded the Court Order due to project limitations e.g. Lower Granite had a limited hydraulic capacity throughout the season due to a turbine unit outage and spill exceeded the Court Order most of the time. In the later part of May, flows peaked in the Snake River and all the projects exceeded the Court Order. Subsequent to this period, extremely high volumes of spill occurred during nighttime hours due to excess market capacity spill and management actions that limited spill during daytime hours to meet water quality waivers.

In order to develop an assessment of spill relative to the Court order the volume of spill was calculated in several ways. The first was to determine the maximum amount of spill that could have occurred if the Court Order were fully implemented without any total dissolved gas restrictions, or in the case of projects that are to spill to the gas caps, spill was calculated to the tailrace value of 120%(a). Then the actual volume of spill that occurred was calculated (b). This volume did not include any involuntary spill, or spill that was in excess of the court order. This excess spill occurred due to project capacity limits (flow in excess of hydraulic capacity or limited hydraulic capacity due to unit outages) or due to overgeneration or lack of market spill. The difference between what actually occurred and what could have occurred under the Court's order without gas restrictions was determined (c). The next calculations considered what could have been spilled if the Court ordered spill program were only managed to the tailrace 120%, rather than to both the tailrace and the downstream forebay monitors (d). The difference between the Court Ordered spill and what could have occurred if tailrace monitors were used is calculated as the potential difference (e). John Day Dam was excluded from the analysis this year. The T1 line outage at John Day Dam reduced hydraulic capacity resulting in tailrace egress conditions that were not particularly good for fish passage. To address this line outage, the Salmon Managers requested that John Day Dam operate as close to 40% spill around the clock, as possible, to address fish passage concerns. Consequently, it is impossible to evaluate the spill that occurred relative to the Court's Order.

From the following table it is estimated that spring spill during 2006 was approximately 4.4 MAF less that what was expected under the Court's Order if TDG was not a constraint. This was primarily a result of in-season management to the downstream forebay total dissolved gas monitors. This was an appropriate management of the system under the present dissolved gas waiver criteria established by the States' water quality agencies. However, from the second part of this exercise it can be observed that if the tailrace monitor were used for in-season

management (rather than both the forebay and tailrace) then the volume of spill (4.1 MAF) would have been substantially greater than would have occurred under the present management due to higher gas cap spill levels (Table 2). This would have provided additional survival benefits to migrating salmonids by increasing the number of fish that passed a project via spill. Biological monitoring when TDG is managed to 120% in the tailrace continues to show little impact to populations at this TDG concentration. Consequently, since the forebay monitors are limiting the fish mitigation measure, then it must be explored if the present TDG management criteria are appropriate.

Site	Volume Court Order Spill (Kaf) (a)	Volume Actual 2006 Spill (not including involuntary spill- or spill greater than court order) (Kaf) (b)	Difference (c)	Volume Spill at 120% TDG @TW Limited by 2006 Court Order (d)	Potential difference if managed to 120% TR (Kaf) (e)
Lower Granite	3134	3134	**0**	3134	**0**
Little Goose	5810	5141	**669**	5774	**36**
Lower Monumental	6268	4687	**1581**	6111	**157**
Ice Harbor	8165	8012	**153**	8165	**0**
McNary	15661	15374	**287**	15632	**29**
John Day**	18341	17993			
The Dalles	18016	16965	**1051**	17936	**80**
Bonneville	14281	13585	**696**	14281	**0**
Total			**4437**		**302**

**** John Day not included in total Kaf calculation.**

Table 1. Volume calculation for spill in 2006 that would have occurred if the Court Order were fully implemented (i.e. no TDG restriction) (a), that volume that did occur voluntarily (b), and the volume that could have occurred if the Court order were managed using tailrace monitors only (d).

Project	Spill (Kcfs) if Gas Cap Managed to Project Tailrace Monitor (120%)	Spill (Kcfs) if Gas Cap Managed to Downstream Forebay Monitor (115%)
Lower Granite	54.1	53.1
Little Goose	50.7	30.2
Lower Monumental	39.0	29.5
Ice Harbor	76.2	63.5
McNary	179.2	161.1
John Day	133.5	131.0
The Dalles	147.0	122.2
Bonneville	101.3	113.3

Table 2. Gas cap estimates generated based on regressions between spill volumes and tailrace TDG or in the next downstream forebay for the Spring 2006 data.

Spill, TDG Supersaturation, and Monitoring

Supersaturation occurs when a solution contains more of the dissolved material than could be dissolved by the solvent under normal circumstances. Dissolved gas supersaturation in the Columbia and Snake rivers routinely occurs during the spring and summer freshet as a result of water spilling over dams. Total Dissolved Gas (TDG) is the measure of the sum total of all gas partial pressures (including water vapor) in water. TDG can be reported as an absolute overall dissolved gas pressure or relative to atmospheric pressure. Gas bubbles can form in the blood and tissues of aquatic organisms when water becomes supersaturated with gas. This results in "Gas Bubble Disease" in the affected organisms. Gas Bubble Disease can, in turn, cause rapid acute mortality as well as increase long-term mortality in aquatic organisms.

The original waiver criteria for TDG were established in 1994. This was the first time a waiver had been requested from the water quality agencies for variation from the national standard with the intent of providing survival benefits to migrating juvenile salmonids through additional spill passage. A literature review of past experiments (Spill and 1995 Risk Management) had suggested that 125% TDG levels might still have provided the benefits of spill, but to err on the conservative side a target of 115% in the mixed waters of the forebay and 120% total dissolved gas in the tailrace was adopted. These criteria have been in-place since 1994 along with a biological monitoring program to assess the impacts of the controlled spill program.

For all spills, the highest TDG levels, and therefore the area most likely to exceed standards, are 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, particularly if breaking waves result. At the next downstream project water should be well mixed and TDG levels much reduced.

However, if wind speeds are still and TDG concentrations are not being increased because of spill, the percent saturation of TDG can increase if the water temperature increases or barometric pressure drops, or if primary productivity (periods of algal growth) occurs. It is important to note that the gas added to the water column by primary productivity is oxygen, and while it contributes to the overall TDG concentration, it is not regarded as a problem for aquatic organisms since oxygen can be removed from tissues via metabolic activity.

Efficacy of forebay monitoring

The goal of the spill program is to provide benefits to migrating juvenile salmonids, while not imposing harm from exposure to dissolved gas that outweighs the benefits of spill. The project forebay TDG monitors were originally intended to represent a mixed cross section in the river just upstream of the dam. The tailwater instruments are located nearer the projects, often in spillway releases downstream of aerated flow, and prior to complete mixing with powerhouse releases. The ability to adequately monitor TDG is extremely important and the question of whether, or not, the forebay monitors reflect the actual picture of the potential harm that could occur from TDG has been a question from the beginning of the monitoring program. While the tailwater instruments are also affected to some degree during periods of non-spill by the same processes that cause the forebay monitors to measure TDG levels above 100%, the physical process of spilling water sufficiently mixes the water column such that the tailwater monitors adequately represent the mixed water column measurement of TDG due to spill.

In 2000 NOAA Fisheries addressed the concern regarding forebay monitors and included in their Biological Opinion a reasonable and prudent alternative (RPA 132), which states "The Action Agencies shall develop a plan to conduct a systematic review and evaluation of the TDG fixed monitoring stations in the forebays of all the mainstem Columbia and Snake river dams (including the Camas/Washougal monitor)...The Action Agencies shall conduct the evaluation and make changes to the location of the fixed monitoring sites, as warranted, and in coordination with the Water Quality Team." All of the project forebay FMS stations were problematic in that each experienced thermally induced TDG pressure spikes during the test periods indicating down welling of warm surface waters, resulting in non-representative spiking of TDG (Carroll, 2004).

In October 2004 the COE presented the results of the RPA 132 study (Carroll 2004) conducted relative to the forebay monitors and the recommendation for relocating these monitors. In RPA 132 the COE used temperature to define surface water and the potential for monitors to measure surface rather than mixed water. Routine spikes in daily water temperature were strongly associated with the daily spikes in TDG. The COE recommended the relocation of several monitors to address the daily spike in temperature. The monitors were relocated upstream of the dam face and the transducers were placed deeper in the water column where daily spikes in temperature were minimized (Appendix B).

Did the COE's Relocation Lead to More Accurate Monitoring?

In order to assess whether the relocation of TDG monitors addressed the problem associated with forebay monitoring identified in RPA 132, an analysis of the data collected before and after relocation was developed. The analysis addressed the variation in TDG due to processes other than spill (i.e. primary productivity, barometric pressure and temperature). The data used for the analysis were the TDG measurements that were taken during periods when spill was not occurring in the hydrosystem. In these data the variation in TDG observed would be a function of daily variations in temperature, barometric pressure and in biological processes. To investigate the variation in total dissolved gas (TDG) levels when no spill occurred, the corresponding TDG, flow, and spill data were collected for each of the following forebay monitors: Lower Granite, Little Goose, Lower Monumental, Ice Harbor, McNary, John Day, The Dalles, Bonneville, and Camas/Washougal. To minimize the effects of any spill that might have occurred, the analysis focused on three time relatively spill free periods and removed any TDG data that could have potentially been affected by spill. The data were evaluated for removal from the data set based on the lag time (water transit time) between projects and review of the potential for any data point being affected by spill at upstream projects, as well as TDG monitor malfunctions.

The first no-spill time period was during the weeks prior to the implementation of voluntary spill in 2001-2006. The target dates for the Lower Snake projects were generally March 1 – April 2. However, TDG data at Little Goose and Lower Monumental were not logged until after March 1. In this case, the first date for each year that data were available at these sites was used. Voluntary spring spill at the Lower Columbia projects begins in April. Therefore, the dates used for the Lower Columbia projects were the first date for which data was available prior to the initiation of spill. This analysis allowed for the evaluation of whether relocating forebay monitors in 2004 (at John Day) and 2005 (at Little Goose, Lower Monumental, Ice Harbor, and McNary) had an effect on TDG variation, as it was intended.

Beginning in 2003, Bonneville began spilling water to facilitate adult passage (training spill) at this project. This training spill was initiated prior to the implementation of voluntary spring spill and involved spilling a small amount of water (less than 5 kcfs) for a period of approximately 12 hours during the daytime. To investigate the effect of this spill level on TDG at Camas/Washougal, a regression analysis on spill at Bonneville and TDG at Camas/Washougal was conducted. This regression indicated that 5 kcfs might increase the TDG levels at Camas/Washougal by approximately 1%. Therefore, in order to compensate for increased TDG at Camas/Washougal due to training spill, the measured TDG levels were reduced by 1% for use in the analyses.

Second, the 2001 spring and summer voluntary spill seasons (April 3 – August 31, 2001 for both Lower Snake Projects and Lower Columbia Projects) were studied. In 2001, voluntary spill did not occur at the Snake River projects and only occurred for a few days in the Lower Columbia due to extremely low water levels and flows. This analysis addressed variation in TDG throughout an entire spill season, over the range of possible temperatures, when no spill was occurring upstream of the monitors. (Spill at Priest Rapids Dam was accounted for in the analysis and the days when spill at Priest could have affected the forebay reading at McNary were removed).

Finally, the 2005 spring spill season for the Lower Snake Projects (April 3 – June 20, 2005) was reviewed. In the spring of 2005, voluntary spill did not occur at most of the Lower Snake projects due to low water levels and flows. This analysis allowed the investigation in the variation in TDG levels in the spring when no spill was occurring. Adjustments were made to account for the time periods during which spill did occur at the lower Snake projects to remove these data from the data sets.

For each of the forebay monitors listed above, the following data were used in these analyses: 1) hourly measures of TDG, 2) hourly measures of flow, and 3) hourly measures of spill. Spill data were taken from the project directly upstream of the monitor of interest. For each forebay monitor, the mean, minimum, and maximum TDG levels for time periods when spill was not occurring at the project(s) above the monitor was estimated. The hourly spill data were used to corroborate that no spill was occurring above each forebay monitor. In instances where spill was occurring above the forebay monitor, hourly flow data were used to estimate water travel times for each spill event through the use of regression. An average water travel time was estimated for each spill event. Total dissolved gas measures that were recorded after a period of spill, based on the average water travel time for that spill event, were eliminated from the analysis. This enabled the elimination of any TDG levels that may have been influenced by spill occurring above the monitor of interest from each of the analyses. Furthermore, the TDG measurements considered were between 95% and 130%.

1. Pre-Spill Season (2001-2006)

The TDG levels prior to the beginning of the spill season were assessed at all projects using available data (Table 3). The table lists the mean TDG value over the period as well as the minimum and maximum values. From the table it can be seen that TDG averaged above 100% with maximum hourly values well in excess of 100%. These data show that all forebay monitors in the system are affected to some degree by processes other than spill, e.g. temperature and primary productivity.

Additionally, the table shows that at projects where forebay monitors were relocated to address RPA 132 (see bold line in table), there was no discernable response to the relocation of the monitor. At all locations, after monitor relocation, the effect of local processes on forebay TDG readings appeared about the same as before relocation.

Pre Spill Season							
Forebay Monitor		**2001**	**2002**	**2003**	**2004**	**2005**	**2006**
Lower Granite	**Mean TDG**	**102.9**	**101.1**	**101.4**	***101.6***	***103.5***	***102.3***
	Min. TDG	99.6	98.1	98.3	*98.5*	*98.9*	*98.7*
	Max TDG	105.9	103.6	105.8	*104.8*	*108.8*	*104.9*
Little Goose	**Mean TDG**	***104.2***	***101.4***	**101.1**	***102.2***	***102.7***	***103.3***
	Min. TDG	*102.3*	*100.5*	99.2	*99.5*	*99.5*	*100.8*
	Max TDG	*108.1*	*103.6*	103.3	*106.4*	*105.2*	*105.3*
Lower Monumental	**Mean TDG**	***104.4***	**101.7**	**100.9**	**102.9**	**102.2**	***103.4***
	Min. TDG	*102.3*	100.4	98.5	100.7	100.2	*102.1*
	Max TDG	*108.5*	103.5	103.4	107.3	105.8	*105.1*
Ice Harbor	**Mean TDG**	***103.2***	**101.8**	**101.4**	**103.0**	**104.9**	***101.8***
	Min. TDG	*100.7*	99.2	98.7	100.4	99.4	*99.7*
	Max TDG	*107.8*	104.4	104.8	106.9	109.7	*105.1*
McNary Oregon	**Mean TDG**	***104.3***	***102.1***	***101.8***	***104.2***	***104.6***	***103.0***
	Min. TDG	*101.1*	*99.1*	*98.1*	*100.1*	*101.0*	*99.9*
	Max TDG	*110.5*	*110.1*	*110.1*	*111.9*	*110.0*	*108.4*
McNary Washington	**Mean TDG**	***103.9***	***102.2***	***102.2***	***104.1***	***104.3***	***102.9***
	Min. TDG	*101.2*	*99.0*	*99.2*	*100.0*	*101.1*	*100.0*
	Max TDG	*109.9*	*107.5*	*105.8*	*108.4*	*108.7*	*106.8*
John Day	**Mean TDG**	**103.3**	***103.5***	***102.9***	***105.1***	***104.4***	***103.9***
	Min. TDG	100.8	*100.7*	*100.3*	*102.5*	*101.7*	*100.9*
	Max TDG	106.50	*107.2*	*107.8*	*109.5*	*106.9*	*107.1*
The Dalles	**Mean TDG**	**102.6**	***103.2***	***102.3***	***103.8***	***104.0***	***103.8***
	Min. TDG	100.3	*100.8*	*100.1*	*100.8*	*101.6*	*101.2*
	Max TDG	105.5	*110.9*	*104.9*	*108.1*	*108.2*	*107.0*
Bonneville	**Mean TDG**	**103.7**	***102.8***	***102.0***	***103.7***	***104.5***	***103.2***
	Min. TDG	100.8	*100.5*	*99.7*	*101.2*	*101.3*	*100.7*
	Max TDG	106.1	*106.0*	*106.2*	*106.7*	*107.2*	*107.7*
Camas/ Washougal	**Mean TDG**	***104.1***	***103.0***	***101.5***	***103.4***	***104.3***	***102.9***
	Min. TDG	*100.3*	*100.0*	*99.0*	*99.5*	*100.6*	*100.3*
	Max TDG	*107.5*	*108.5*	*105.0*	*107.9*	*108.6*	*108.0*

Table 3. Mean, minimum and maximum TDG values estimated for each project based on hourly TDG data available for the season prior to the initiation of spill. Italicized data indicate the years where some above-project spill occurred and some TDG measures were eliminated when estimating mean, min, and max TDG. An estimated water travel time was used to determine which TDG measurements to eliminate from the estimation of mean, min, and max TDG at each project.

2. 2001 Spill Season

The 2001 drought year presented a data set where most of the time spill did not affect the forebay monitors. During the 2001 spill season (April 3 to August 31, 2001), all projects had a mean TDG above 100% after removal of any data from the data set that may have been affected by spill (spill did occur in the Mid Columbia). The mean TDG level ranged from 101.3% at John Day to 104.1% at McNary dam (Oregon side) (Table 4). The lowest minimum TDG was 95% at the John Day monitor. Finally, the highest maximum TDG was 111% at the Lower Granite monitor.

2001 In Season TDG Levels (April 3 – August 31)			
Forebay Monitor	**Mean Seasonal TDG**	**Min Hourly TDG**	**Max Hourly TDG**
Lower Granite	*102.9*	*97.7*	*111.0*
Little Goose	*101.2*	*95.8*	*110.2*
Lower Monumental	*102.4*	*97.1*	*110.6*
Ice Harbor	*101.9*	*95.4*	*110.1*
McNary - Oregon	*104.1*	*101.7*	*110.1*
McNary - Washington	*103.1*	*99.0*	*105.7*
John Day	*101.3*	*95.0*	*107.3*
The Dalles	*101.2*	*95.1*	*107.2*
Bonneville	*102.1*	*97.9*	*107.1*
Camas/Washougal	*103.4*	*97.9*	*110.4*

Table 4. Mean, minimum and maximum TDG values estimated for each project based on hourly TDG data available for 2001. Italicized data indicate the years where some above-project spill occurred and some TDG measures were eliminated when estimating mean, min, and max TDG. An estimated water travel time was used to determine which TDG measurements to eliminate from the estimation of mean, min, and max TDG at each project.

3. 2005 Spring Spill Season

Planned spill did not occur in the Snake River above Ice Harbor Dam during the spring. During the 2005 spring spill season (April 3 to June 20, 2005), all Lower Snake River projects had a mean TDG above 100% (Table 5). The mean TDG for the Lower Snake River projects ranged from 102.8% at the Lower Granite forebay monitor to 103.5% at the Ice Harbor forebay monitor. The lowest minimum TDG was 98.9% at the Lower Granite monitor. The highest maximum TDG was 108.8% at the Lower Monumental monitor.

2005 Spring Spill Season TDG Levels (April 3 – June 20)			
Forebay Monitor	**Mean TDG**	**Min TDG**	**Max TDG**
Lower Granite	*102.8*	*98.9*	*108.3*
Little Goose	*103.0*	*99.7*	*106.7*
Lower Monumental	*103.0*	*100.0*	*108.8*
Ice Harbor	*103.4*	*101.3*	*106.4*

Table 5. Mean, minimum and maximum TDG values estimated for each project based on hourly TDG data available for 2005. Italicized data indicate the years where some above-project spill occurred and some TDG measures were eliminated when estimating mean, min, and max TDG. An estimated water travel time was used to determine which TDG measurements to eliminate from the estimation of mean, min, and max TDG at each project.

Based on the three separate analyses that were conducted, it is safe to say that, in conclusion, forebay monitors do not accurately reflect the TDG of mixed waters and continue to be impacted by localized processes. Measures (relocation) taken under RPA 132 to assure that the forebay monitors were representative of mixed water at several of the projects did not achieve that objective.

Oxygen relationship

While the role of dissolved oxygen from primary productivity is acknowledged in affecting the overall TDG concentration, in RPA 132 the COE did not specifically address the impact of primary productivity on the total dissolved gas levels. Primary productivity can increase dissolved oxygen levels, which would result in a higher TDG percent saturation reading. It is possible that the forebay monitors are often affected by oxygen production due to primary productivity as well as diel temperature variations. Dissolved oxygen readings are not routinely collected, therefore, limited dissolved oxygen data exists in the record to assess the impact of dissolved oxygen on the overall total dissolved gas readings for the time period used in the previous analysis. However, there are some periods where simultaneous hourly data are available for total dissolved gas, dissolved oxygen and temperature at the dam forebay monitors. These data were available for certain periods prior to the initiation of the spill program at the lower Snake River projects for 2001 to 2004. Those limited data were analyzed to determine the potential relation between dissolved oxygen, total dissolved gas and temperature (Table 6).

A series of correlation coefficients were estimated for the available data. From the table it can be seen that about half of the correlation coefficients showed a stronger relation between dissolved oxygen and total dissolved gas, than for temperature and total dissolved gas. While the studies conducted under RPA 132 only addressed temperature, the data here suggest that at times dissolved oxygen may be as important in affecting the forebay monitor reading as temperature. The impact of dissolved oxygen from primary productivity may explain why the monitor relocation in response to RPA 132 did not achieve its objective.

Project		2001	2002	2003	2004
LGR	TEMP	-0.34	-0.11	0.06	0.33
	DO	**0.48**	**0.11**	-0.02	**0.62**
LGO	TEMP	-0.31	-0.02	0.71	-0.05
	DO	**0.83**	**0.21**	0.20	0.11
LMN	TEMP	0.53	0.28	0.06	Data not useable
	DO	0.18	0.19	**0.12**	
IHR	TEMP	-0.41	-0.02	0.49	Data not useable
	DO	**0.85**	**0.19**	-0.57	

Table 6. Correlation coefficients (r^2) between hourly temperature readings (TEMP) and TDG and between hourly dissolved oxygen (DO) readings and TDG at the Snake River projects.

While these data are limited, they do suggest a mechanism that may be contributing to the continued inability of forebay monitors to adequately represent the TDG of the mixed water column in the forebay of a dam.

Biological Monitoring

Since 1995, the biological monitoring program has recorded annually the effects of the FCRPS biological opinion spill program. The data observed over the years through the biological monitoring has consistently shown very low incidence of GBT when gas levels are at the 120% tailrace criteria. When fish are exposed to gas levels greater than 120%, there is an increasing trend in incidence and severity of these signs (Figure 1). For all fish examined through the Smolt Monitoring Program for signs of GBT when tailrace TDG levels were 120% or less the incidence of any fin signs observed in that population was 0.5%. This demonstrates the minimal effect of biological opinion spill levels with TDG levels managed to 120% in the project tailrace. That percentage of fish affected with GBT begins to increase above 120% and then dramatically increases above 125%.

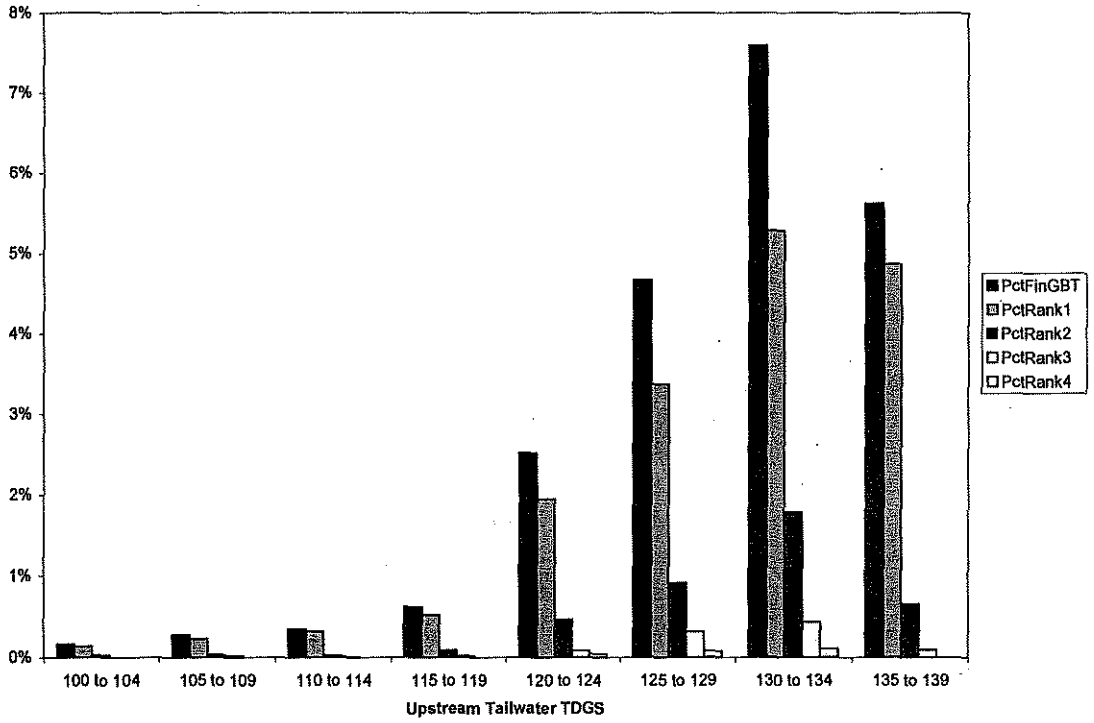


Figure 1. Percentage of all Fish Examined for GBT at Little Goose, Lower Monumental, McNary and Bonneville dams from 1995 to 2005 that showed fin any GBT as well as the percent by TDG category based on upstream tailwater monitor and fish travel time from that site. Fin ranks are: rank 1 – less than 5% fin area covered with bubbles, rank 2 – 5 to 25%, rank 3 – 26 to 50% and rank 4 – greater than 50%.

2006 Spill

An issue surfaced during the 2006 spring spill season with regard to the management of spill solely to physical TDG criteria. During the spring freshet the TDG levels exceeded the water quality standards and the incidence of GBT in fish exceeded the criteria at some projects (Appendix C). However, since this was uncontrolled spill, no recourse was possible. However, later in the season the incidence of GBT again increased at the Snake River projects as a result of project operations for the management of excess market spill after the spring peak flows had

occurred. This occurred during mid-June of 2006. At the time the Action Agencies' management of spill attempted to meet water quality standards during daytime hours, which resulted in spill levels well in excess of the Court's order during nighttime hours. The management resulted in periods when TDG levels may have been significantly higher that if attempts were made to manage spill to a lower overall daily average. A more logical management approach would have been to attempt as best as possible to evenly distribute spill over the 24-hour period. While the instantaneous gas would have exceeded the waiver criteria, the daily average TDG would have been lower for the day. The overall lower TDG values may have had less impact on fish. This type of management should be implemented in future years.

Conclusions

Spill in 2006 was implemented according to the Court's Order and the current dissolved gas waiver criteria. However, it appears that there is sufficient information to conclude that changes should be considered to the waiver criteria regarding the use of forebay monitors as a point of compliance for dissolved gas. These monitors do not represent the measurements of TDG in mixed waters as was originally intended. Further, it appears that efforts to relocate monitors have not addressed the impacts to measurements caused by localized variations in temperature, barometric pressure and primary productivity.

Consequently, spill that occurred in the spring of 2006 offered less mitigation to migrating salmonids (4.1 MAF) than what could have occurred if spill only met the 120% TDG tailrace objective, after excess hydraulic capacity and excess market spill were removed from the equation. The bias towards a higher TDG reading at the forebay monitors results in an unnecessary limitation of protection measures for fish passage. The alternative of using the tailrace monitor allows for better implementation of the intent of the Court's Order.

Biological monitoring conducted over several years' supports the minimal impact to migrating salmonids of total dissolved gas levels at 120% or less. So few fish have been detected over 12 years of monitoring when spill is 120% at the tailrace location of an upstream project that it is safe to assume minimal impact. Management to the 120% tailrace criteria assures the safety of fish in a planned spill program, while at the same time better allowing for the achievement of the biological objectives of the program.

References:

Bouck, G.R., A.V. Nebeker, and D.G. Stevens, 1976. *Mortality, saltwater adaptation and reproduction of fish exposed to gas supersaturated water.* U.S. Environmental Protection Agency, Office of Research and Development, EPA-600/3-76-050, Washington, D.C.

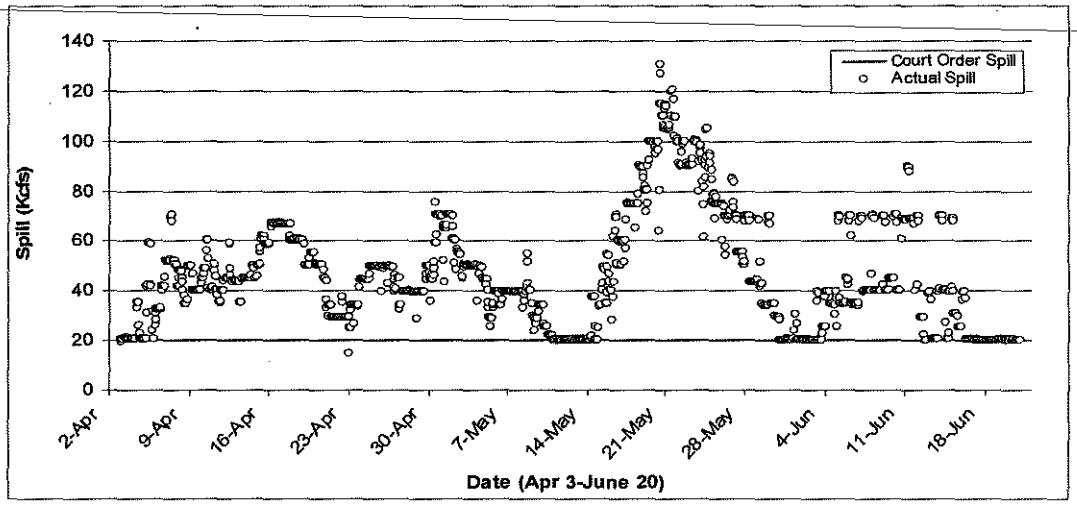
Carroll, J.H. 2004. TDG Forebay Fixed Monitoring Station Review and Evaluation for Lower Snake River Projects and McNary Dam US Army Corps of Engineers. Contract Number: DACW68-03-D-0003.

National Marine Fisheries Service. 2000. 2000 Federal Columbia River Power System Biological Opinion.

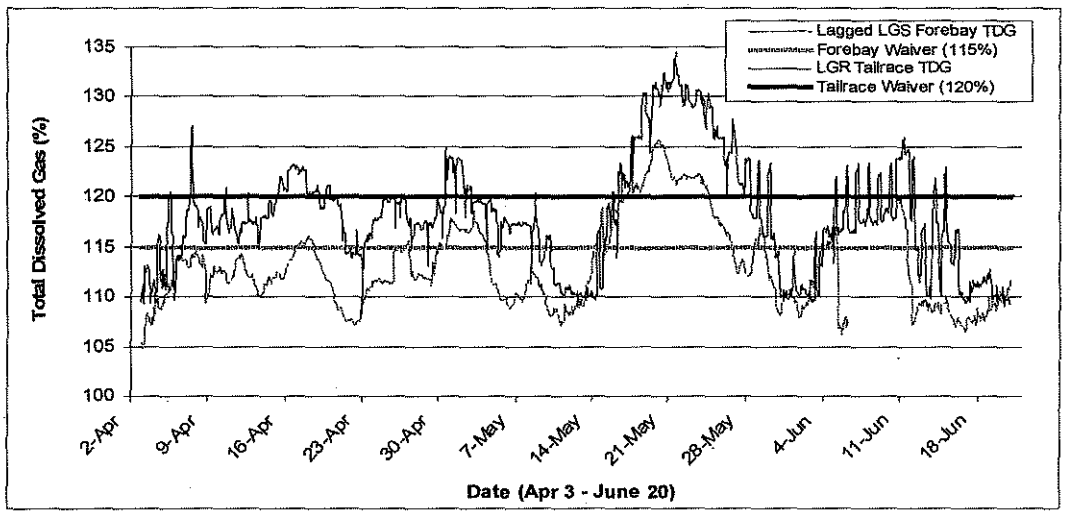
Total Maximum Daily Load for Total Dissolved Gas in the Mid-Columbia River and Lake Roosevelt Department of Ecology 04-03-002 Pickett, P., H. Rueda, and M. Herold June 2004.

Washington Department of Fish and Wildlife, Oregon Department of Fish and Wildlife, Idaho Department of Fish and Game, and Columbia River Inter-Tribal Fish Commission. 1995. Spill and 1995 Risk Management.

Appendix A



Lower Granite (Spill vs. Court Order)



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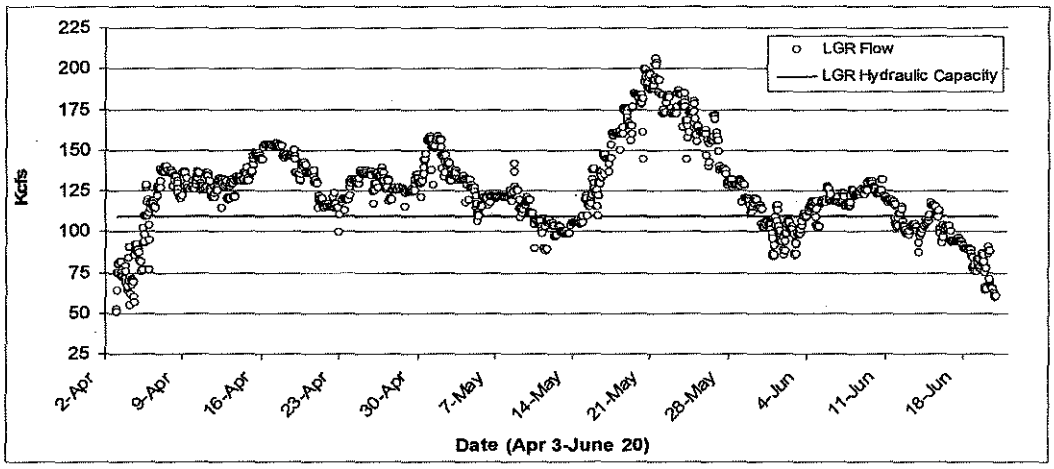
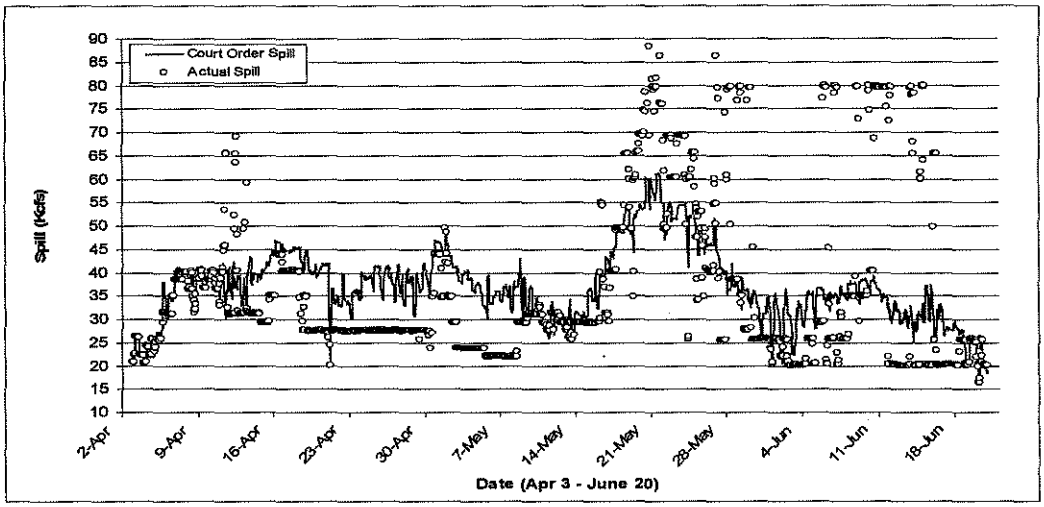
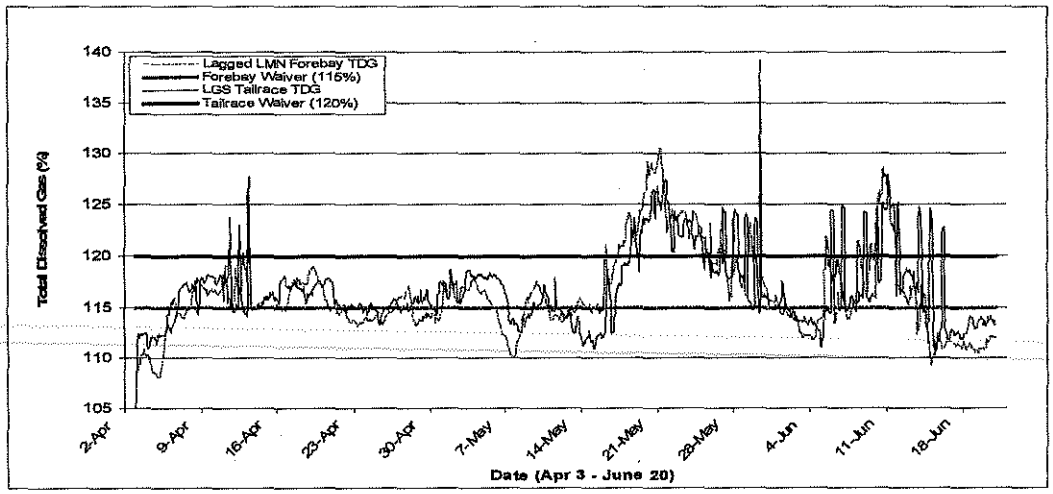


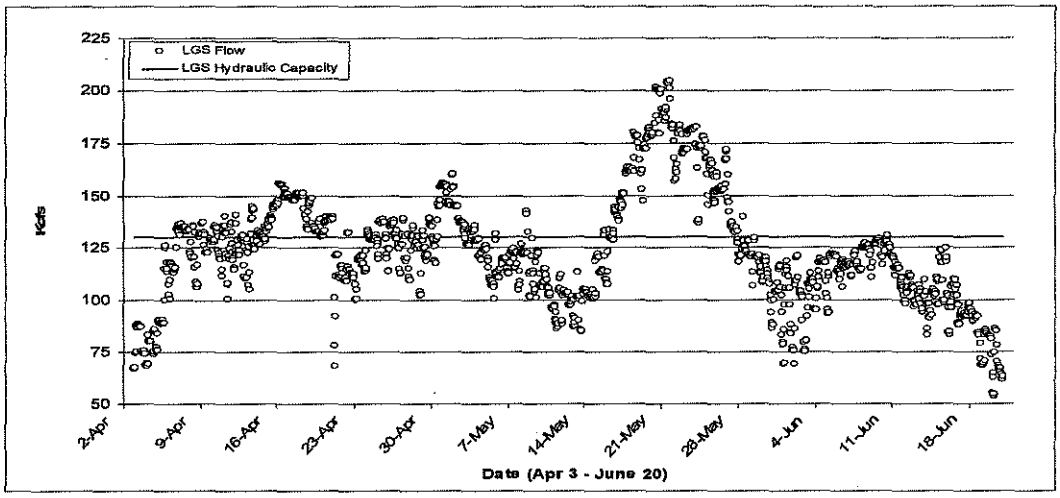
Lower Granite (Flow vs. Hydraulic Capacity)



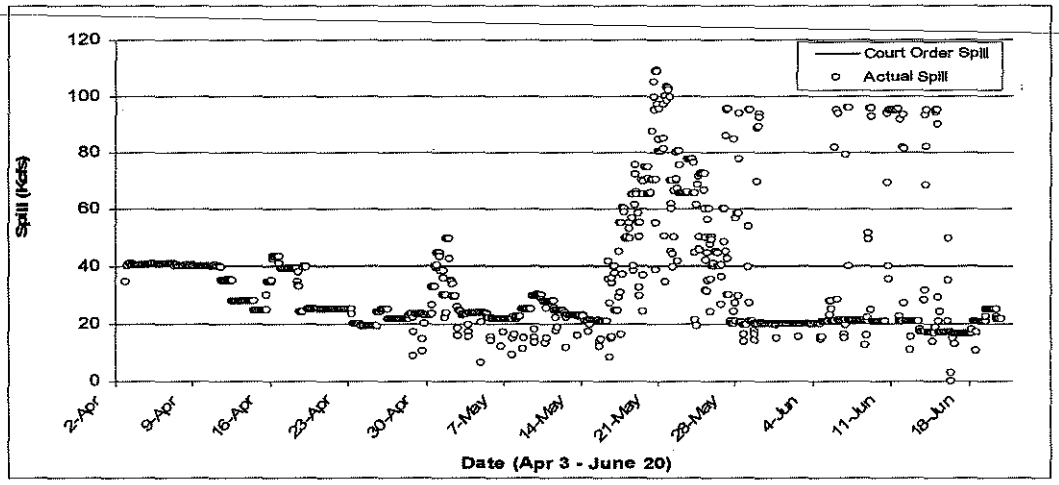
Little Goose (Spill vs. Court Order)



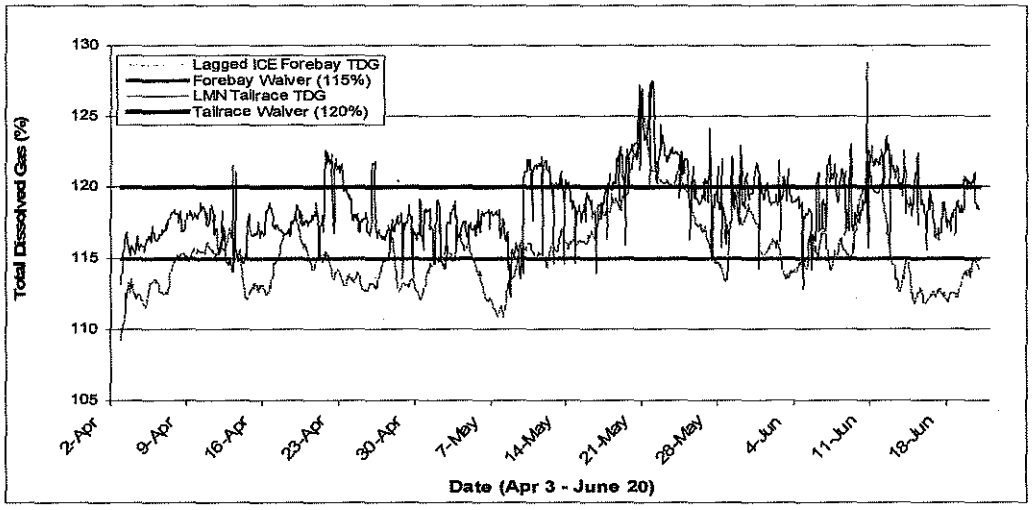
Little Goose (Forebay and Tailrace TDG)



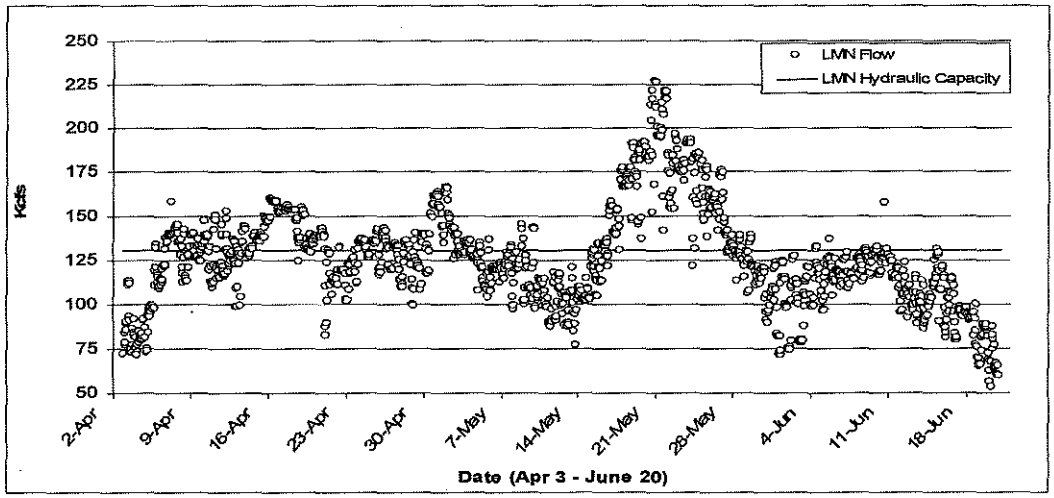
Little Goose (Flow vs. Hydraulic Capacity)



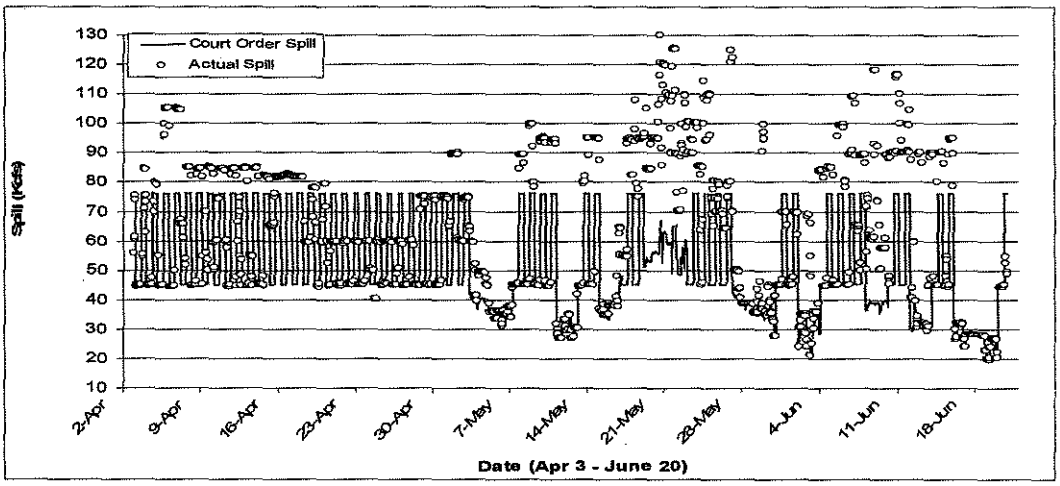
Lower Monumental (Spill vs. Court Order)



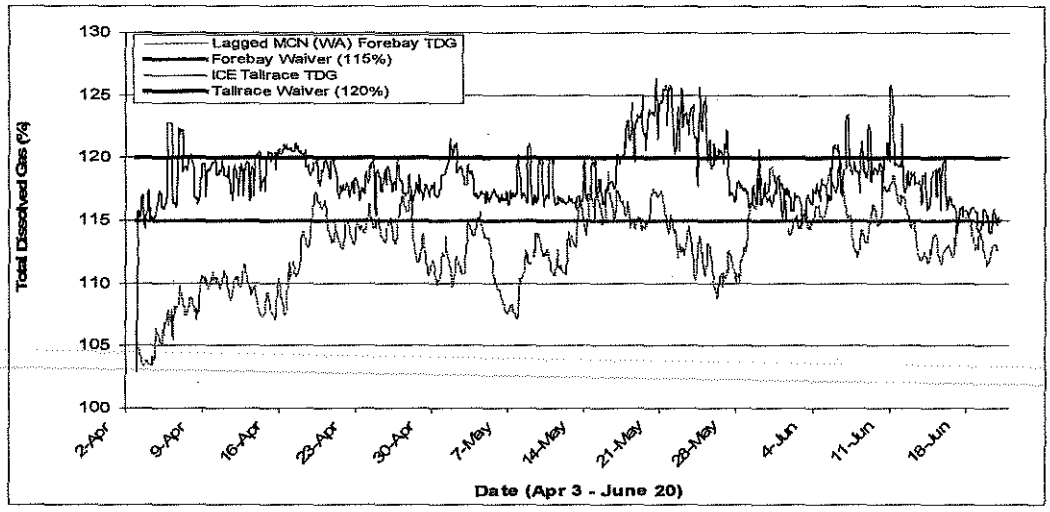
Lower Monumental (Forebay and Tailrace TDG)



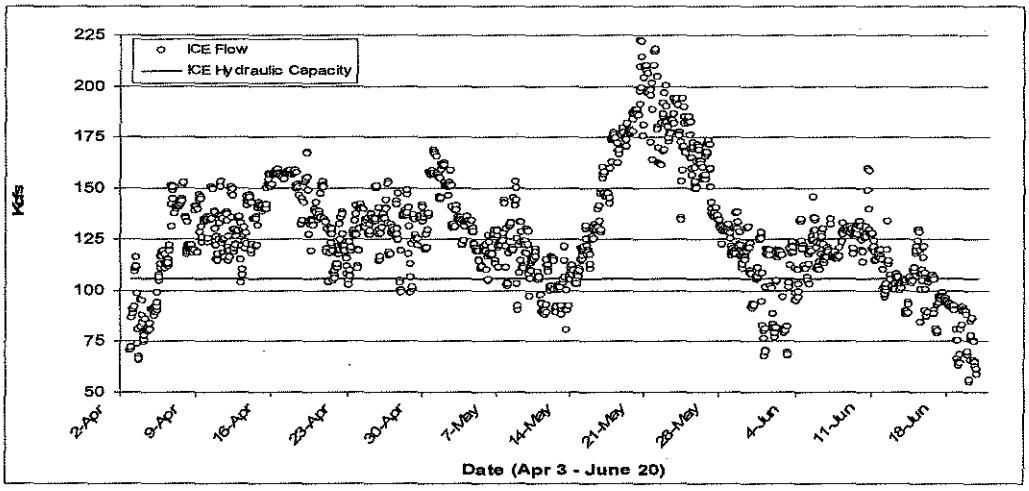
Lower Monumental (Flow vs. Hydraulic Capacity)



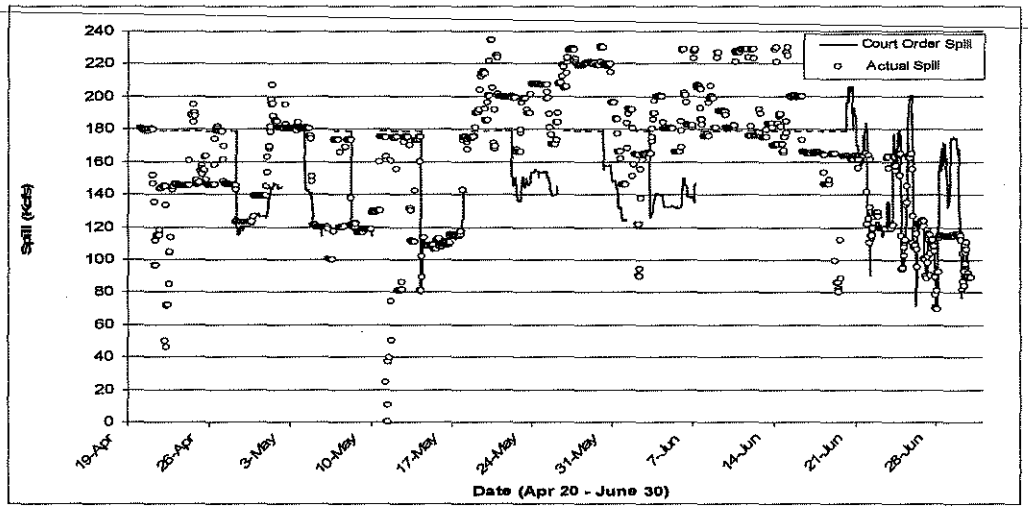
Ice Harbor (Spill vs. Court Order)



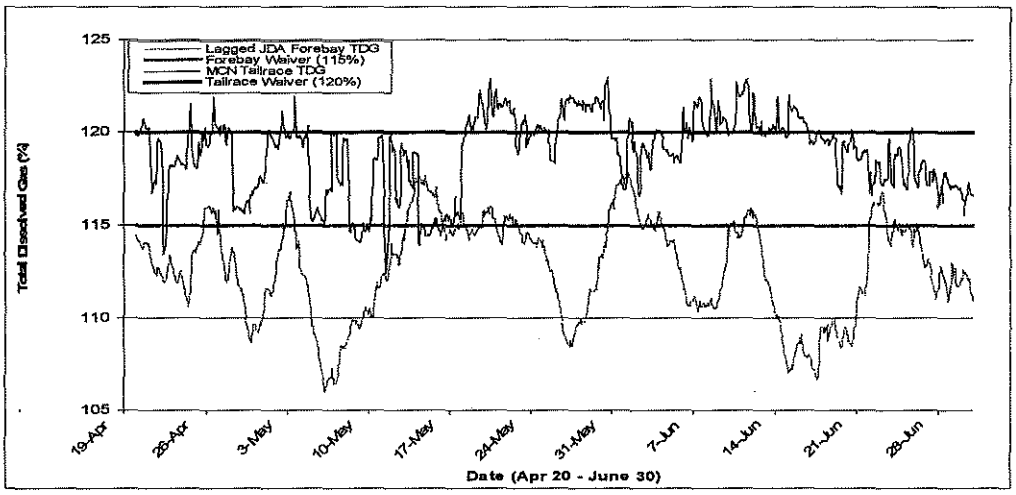
Ice Harbor (Forebay and Tailrace TDG)



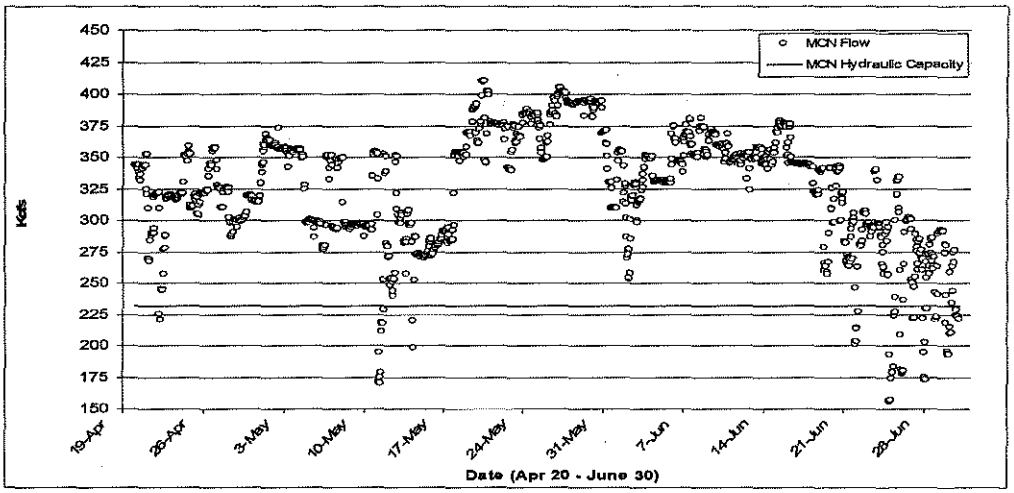
Ice Harbor (Flow vs. Hydraulic Capacity)



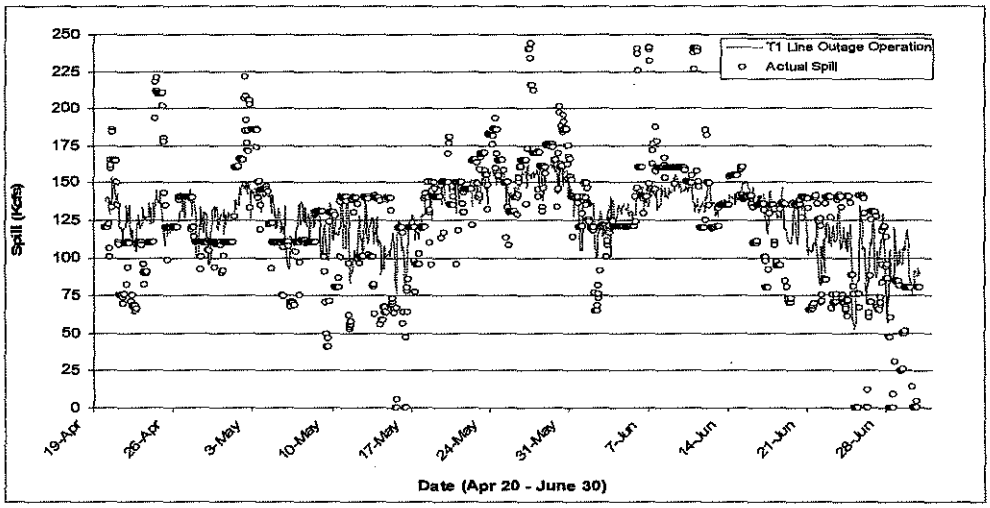
McNary (Spill vs. Court Order)



McNary (Forebay and Tailrace TDG)



McNary (Flow vs. Hydraulic Capacity)



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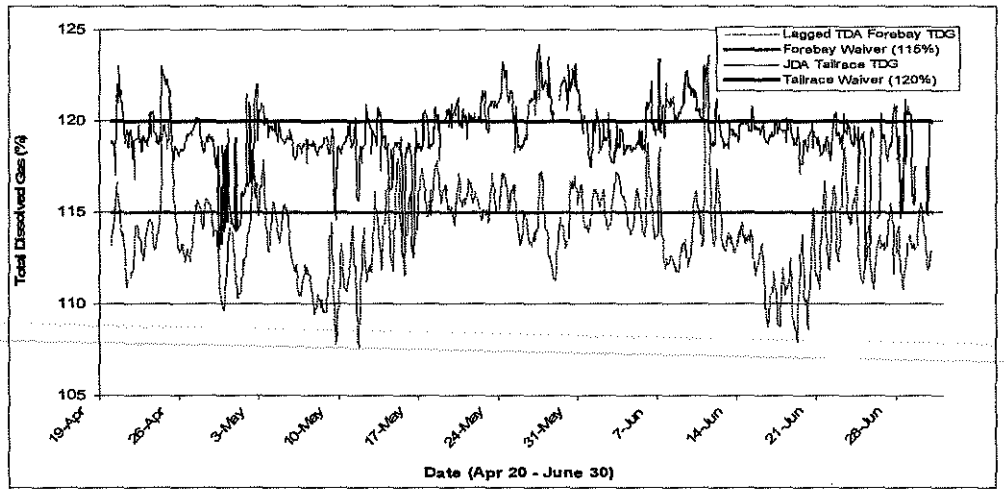
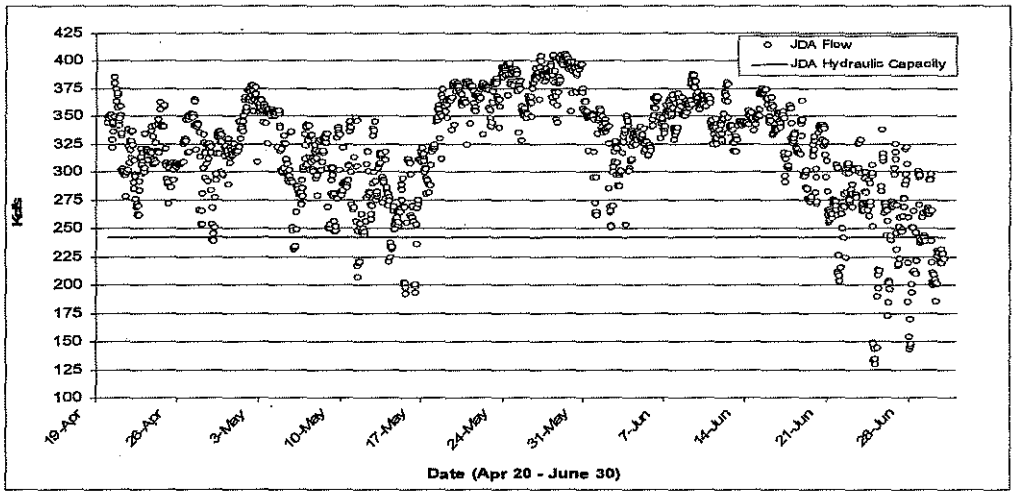


John Day (Forebay and Tailrace TDG)



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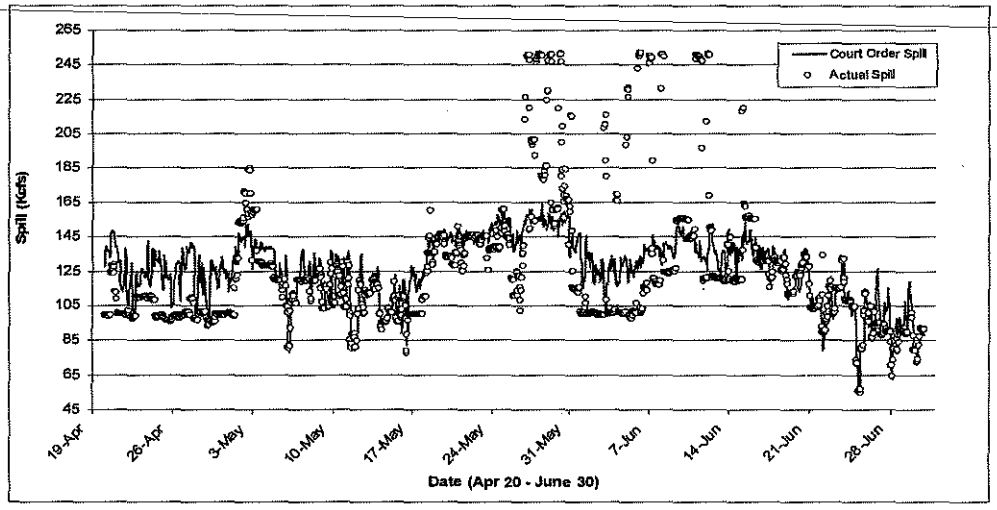
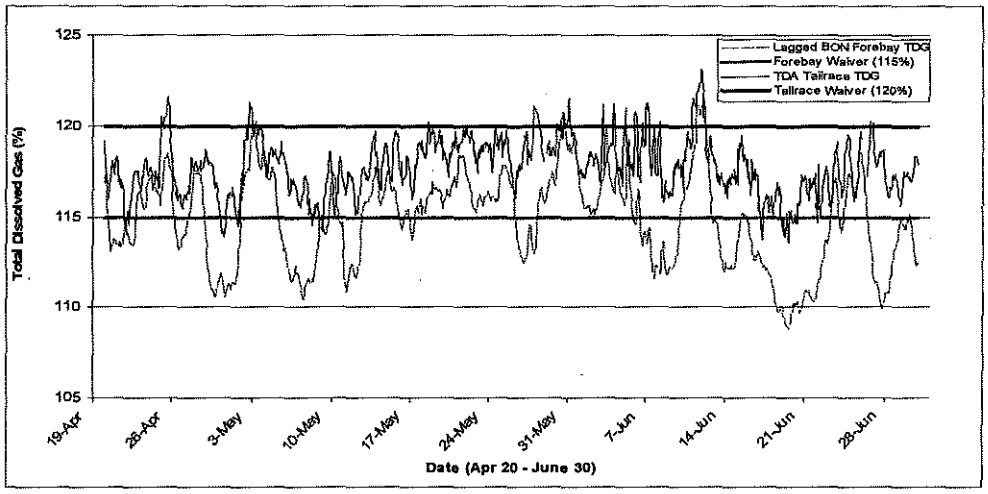
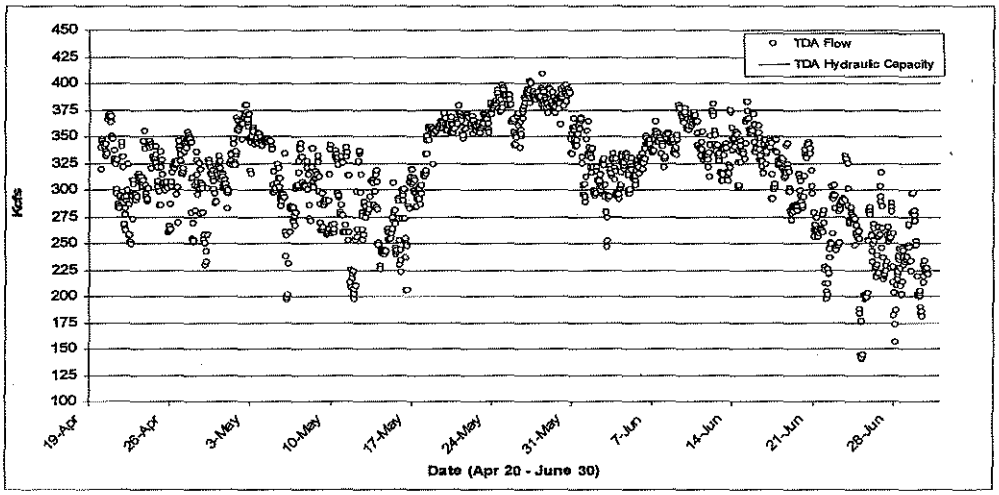


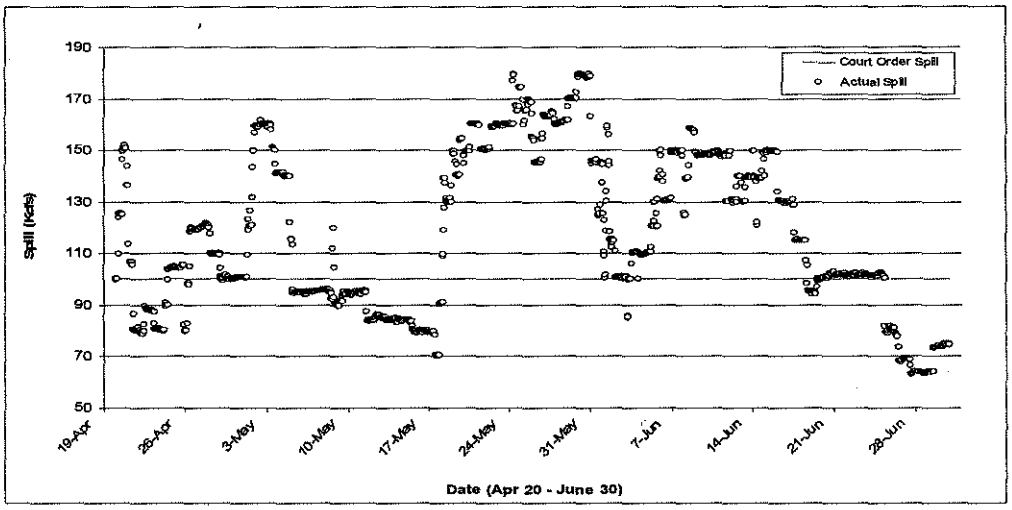
The Dalles (Spill vs. Court Order)



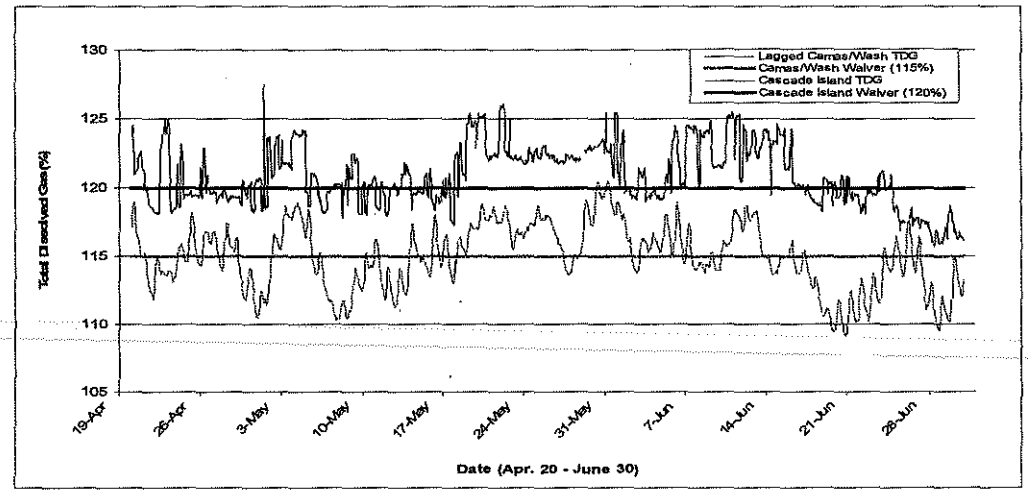
The Dalles (Forebay and Tailrace TDG)



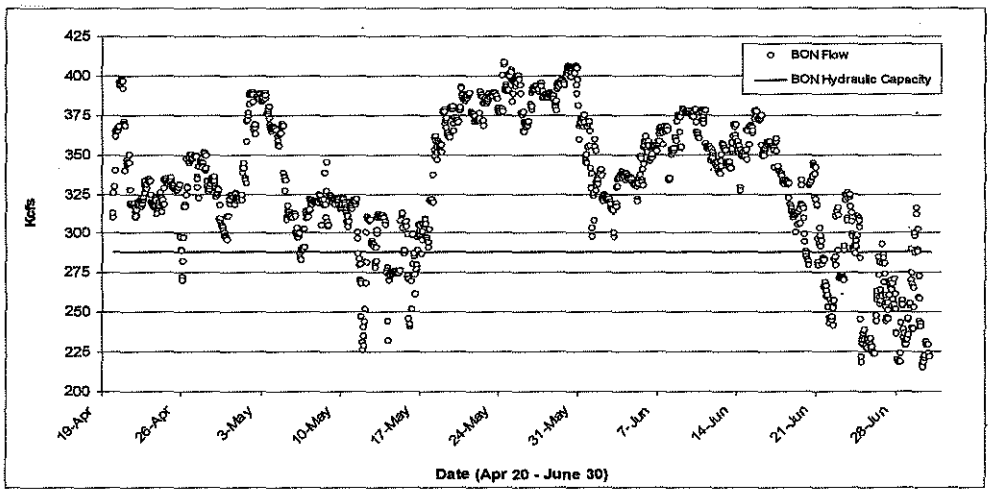
The Dalles (Flow vs. Hydraulic Capacity)



Bonneville (Spill vs. Court Order)



Bonneville (Forebay and Tailrace TDG)



Bonneville (Flow vs. Hydraulic Capacity)

APPENDIX B

Columbia River TDG Fixed Monitoring System History
Draft, 7/5/06

Fixed Monitoring System Station Codes – See attached table.

Year	Status or Action
2000	- All stations remain as they were in 1999
	- JDAW – a second, redundant monitor added
2001	- All stations remain as they were in 1999
	- Walla Walla District installed temperature monitor in DWQ pool
	- Pasco & Anatone kept as winter monitors
	-Portland District added a 2nd Camas gauge
2002	- WQT recommended Camas remain, add a new station at Corbett
	- SKAW terminated in favor of new Corbett station
	- WRNO remained in service
	-Added data logger at west end of TDA powerhouse, east end station remained official mgmt gauge
	-Added JDA scroll case temperature monitor. JDA forebay remained as mgmt gauge
	-WQT agreed to evaluate all FMS for performance at the end of 2002
2003	-Continued exploratory monitoring at Corbett
	-WRNO & TDDO declared inconsistent with other tailrace monitors
	- A monitor in the BON tailrace replaced WRNO
	- No change in BON forebay monitor
	- Relocation of forebay monitors under consideration for TDA, JDA, MCQW & MCQO
	- FB monitor relocation reviewed for IHR, LMN, LGS, & LGR. A multi-year plan to review and analyze includes review and analysis of existing data from the forebay fixed monitors for representativeness and anomalies in total dissolved gas and temperature.
2004	- CMWM remained a spill mgmt site
	- no change
	- BON tailrace monitor installed on Bradford Island
	Page 2
	- No Change - WRNO, BON (forebay), TDA, TDDO, JDAW, MCN, Pasco, IDSW, LMNW, LGSW, LGNW
	TDDO is inconsistent with other tailwater sites. Continue use of site to manage spill. Recommend additional investigations of more suitable location
	- JDA relocates to upstream end of nav. lock, 15 m deep.

2004 continued	- MCNW and MCNO – transition year. Evaluate alternate sites, include
	Re-locate to upstream end of Washington nav lock guide wall, 15 m deep, & at the Oregon BRZ (Oregon side)
	- Transition year for IHR, LMN, LGS, LGW. Evaluate & locate Monitors were set at 5 m
2005	- No Change CWMW, BON, TDA, TDDO, JDA-2, JDAW, MCPW, Pasco, IDSW, LMNW, LGSW, LGNW
	- Winter only (TDG and Temp) - WRNO
	- BON tailrace moved to CCIW. Use CCIW data to manage BON spill
	- MCPO, MCPW- Washington side monitor moved to end of nav lock guide wall, 15 m deep. MCPO no change, add a monitor on a float at the BRZ
	- Redeploy monitor to depth of 15 m. at IHR-2, LMN-2, LGS-2, LGR-2
2006	-No Change CMWM, TDA, JDA-2, MCPW-2, IDSW, LMN-2, LGS-2, LGNW
	-WRNO installed 3/1/06, removed at end of May 2006 after chum emergence
	- Site became year-round tailrace TDG monitor – CCIW, TDDO, IDSW, LMNW, LGSW
	- Site monitoring discontinued during fall and winter – BON, MCQW-2, IHR-2, LGW-2. Operational during spill season
	- MCQO permanently retired

Note: See page 3 for fixed monitoring system station code and name

Summary Notes:

2003 - BON tailrace monitor added at Turtle Rock
- Multi-year plan to relocate Snake River forebay monitors developed

2004 – forebay monitor relocations to JDA, MCN, IHR, LMN, & LGR. Moved monitors to 5 m depth on nav lock walls

2005 – Redeployed MCPW, IHR-2, LMN-2, LGS-2, LGR-2 to 15 m depth on nav lock wall
- BON tailrace moved to CCIW
-WRNO used during the chum incubation and emergence period (March- May)

2005 Dissolved Gas Monitoring Network

Station Code and Name

STATION CODE	STATION NAME
CIBW	US/Can Boundary
HGHW	Below Hungry Horse
FDRW	Grand Coulee Forebay
GCGW	Grand Coulee Tailwater
ALFI	Albeni Falls Forebay
ALFW	Albeni Falls Tailwater
LBQM	Libby Tailwater
CHJ	Chief Joseph Forebay
CHQW	Chief Joseph Tailwater
WEL	Wells Forebay
WELW	Wells Tailwater
RIH	Rocky Reach Forebay
RRDW	Rock Reach Tailwater
RIS	Rock Island Forebay
RIGW	Rock Island Tailwater
WAN	Wanapum Forebay
WANW	Wanapum Tailwater
PRD	Priest Rapids Forebay
PRXW	Priest Rapids Tailwater
PAQW	Columb. R. Above Snake
DWQI	Dworshak Tailwater
PEKI	Peck/Clearwater
LEWI	Lewiston/Clearwater
ANQW	Upper Snake at Anatone
LWG-2	Lower Granite Forebay
LGNW	Lower Granite Tailwater
LGS-2	Little Goose Forebay
LGSW	Little Goose Tailwater
LMN-2	Lower Monum. Forebay
LMNW	Lower Monum. Tailwater
IHR-2	Ice Harbor Forebay
IDSW	Ice Harbor Tailwater
MCQW-2	McNary Forebay – WA
MCQO	McNary Forebay – OR
MCPW	McNary Tailwater
JDA-2	John Day Forebay
JHAW	John Day Tailwater
TDA	The Dalles Forebay
TDDO	The Dalles Tailwater
BON	Bonneville Forebay
CCIW	Bonneville Tailwater
WRNO	Warrendale
CWMW	Camas/Washougal

APPENDIX C

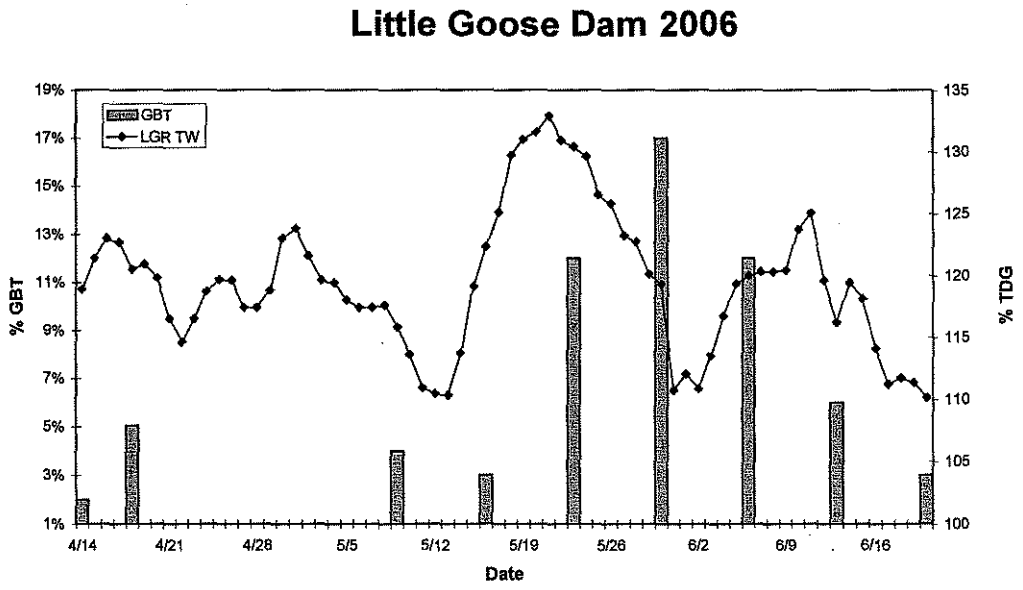


Figure 1. Percent signs of GBT observed in samples of juvenile salmon at Little Goose Dam and the upstream tailwater reading of total dissolved gas.

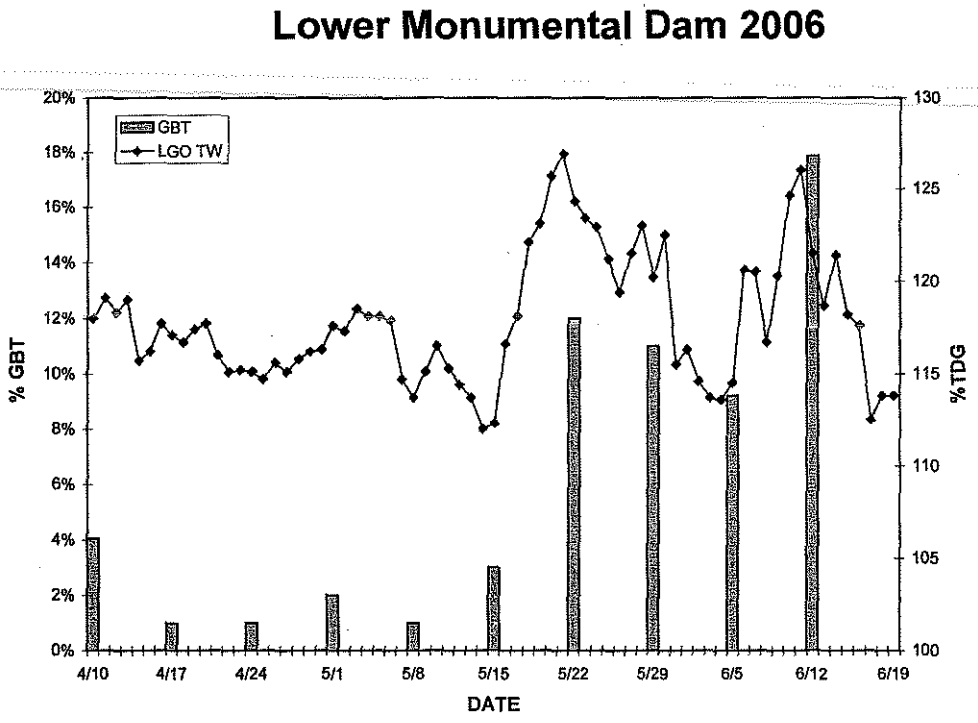


Figure 2. Percent signs of GBT observed in samples of juvenile salmon at Lower Monumental Dam and the upstream tailwater reading of total dissolved gas.

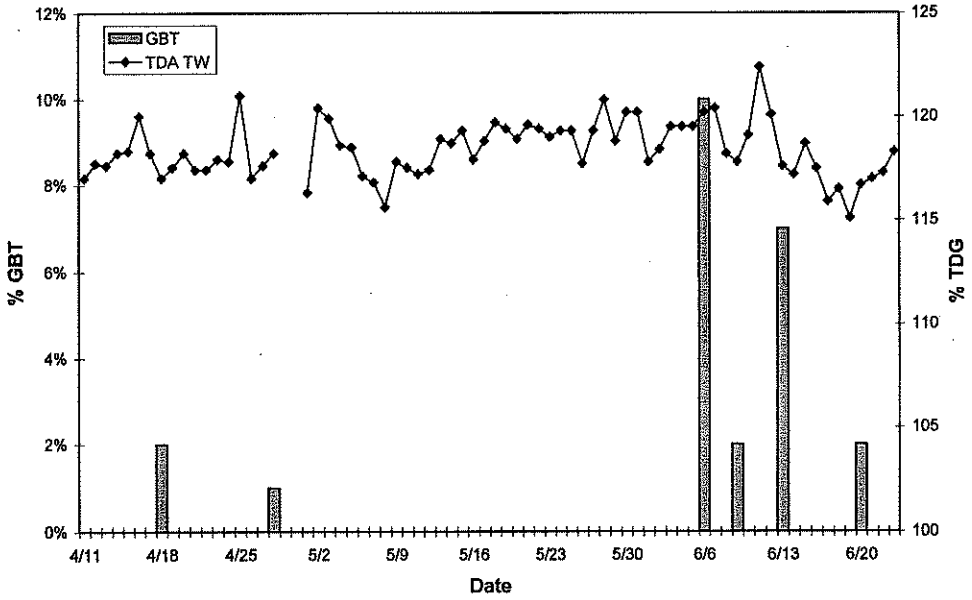


Figure 3. Percent signs of GBT observed in samples of juvenile salmon at Bonneville Dam and the upstream tailwater reading of total dissolved gas.

Oregon
Theodore R. Kulongoski, Governor

Department of Environmental Quality
811 SW Sixth Avenue
Portland, OR 97204-1390
503-229-5696
TTY: 503-229-6993

December 17, 2007

Christopher Campbell, Registered Agent
Shilo Management Corporation
11600 S.W. Shilo Lane
Portland, OR 97225

Originals are in the DEQ Enforcement files

On December 13, 2007 the Environmental Quality Commission issued the attached Final EQC Order in DEQ Case No. WQ/D-ER-06-054 (OAH Case No. 129617). The Final Order found that Shilo Management Corporation is liable for a civil penalty of $3,656, to be paid to the State of Oregon.

Payment by check or money order in the amount of $3,656, made payable to "**State Treasurer, State of Oregon**," can be sent to: **Business Office, Department of Environmental Quality, 811 S.W. Sixth Avenue, Portland, Oregon 97204**.

If the civil penalty remains unpaid for more ten (10) days from the date the Final Order becomes final either upon appeal or by operation of law, we will file the Final Order with the Wallowa County Clerk, and with any County Clerk in any other county where Shilo Management Corporation may own real property. This will result in a lien being placed on any real property Shilo Management Corporation may own in that county. Shilo Management Corporation will not be able to clear title of its property in a sale without paying its debt plus interest to this Department. We will also ask the Department of Revenue or a private collection agency to pursue collection of the penalty. Statutory interest on judgments is nine percent per annum.

If Shilo Management Corporation has any questions about the Final Order, please call me at DEQ's Office of Compliance and Enforcement in Portland, (503) 229-5340.

Sincerely,

Deborah Nesbit

Deborah Nesbit
Administrative Assistant

cc: Business Office, DEQ
Office of the Director, DEQ
Office of Administrative Hearings, Transportation Hearings Division, 1905 Lana Ave NE, Salem, OR 97314
Heidi Williams, Pendleton Office, DEQ

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
OF THE STATE OF OREGON

In the Matter of:	)	
	)	Final Contested Case Order
SHILO MANAGEMENT	)	
CORPORATION,	)	OAH Case No. 129617
an Oregon corporation,	)	DEQ No. WQ/D-ER-06-054
Respondent.		

Background

This matter came before the Commission at its regular meeting on June 22, 2007, on the Department of Environmental Quality's petition for review of the "Amended Proposed and Final Order Assessing Civil Penalty" (Amended Proposed Order) in this matter issued on November 20, 2007 by Administrative Law Judge Lawrence Smith. The Amended Proposed Order is attached to this Final Order and incorporated by reference. The Department was represented by Bryan Smith, Environmental Law Specialist and Jane Hickman, Manager for Compliance and Enforcement. Respondent did not appear. The Commission considered the written material and oral argument presented on behalf of the Department, as well as the staff report. Respondent did not file a brief in response to the Department's Exceptions and Brief.

After hearing argument, the Commission deliberated. By a majority vote, the Commission accepted the Department's first exception. This exception was taken to the Administrative Law Judge's conclusion that Respondent's installation of two on-site sewage disposal systems constituted only one violation of OAR 340-071-0130(15). The Commission reversed this conclusion, concluding that the two installations constituted two violations as a matter of law.

By a majority vote, the Commission also accepted the Department's second exception. The second exception related to assessment of a separate civil penalty for the second violation of OAR 340-071-0130(15). The Commission reinstated the civil penalty assessed by the Department for this violation, but reduced the penalty amount to $1500 (a $250 reduction) as requested by the Department to reflect Respondent's cooperation in correcting the violation. The ALJ assessed a civil penalty of $1,531 for one violation of OAR 340-071-0130(15). DEQ did not take exception to that penalty assessment. Thus, the total penalty assessment for installation of two on-site sewage disposal systems is $3,031.

The Commission unanimously accepted the Department's third exception. The ALJ concluded that although Respondent violated its Water Pollution Control Facilities (WPCF) permit when it installed new showers without DEQ approval, Respondent had not acted negligently in doing so. For that reason, the ALJ calculated the civil penalty using a value of 0 for the "M" (Mental State) factor. The third exception related to the

ALJ's conclusion that Respondent did not act negligently and his consequent reduction of the value assigned the M factor in the penalty calculation. The Commission reversed the ALJ's conclusion that Respondent did not act negligently. Specifically, the Commission determined that Respondent was presumed to have at least constructive knowledge of the content of its own WPCF permit. When Respondent nonetheless elected to pursue a course of conduct that violated its permit, Respondent failed to take reasonable care and was, therefore, negligent. Thus, the M factor should be 2 and the civil penalty for this violation increased by $125, for a total penalty of $625.

Final Order

The Amended Proposed Order is adopted as the Final Contested Case Order of the Commission with the addition of the analysis set out above and the following modifications (all page references are to the original Amended Proposed Order included as Attachment A. A red-line markup showing the modifications is attached as Attachment B for ease of reference):

A. Finding of Fact No. 5 (page 3 of Amended Proposed Order) is replaced with the following:

Respondent's WPCF permit was issued on September 11, 2002. The permit is included as Exhibit A-9. The Notice of Violation, Department Order and Assessment of Civil Penalty in this matter refers to the violation of Schedule D Special Condition 3 of the permit. Paragraph 3 of Section IV (Violations). Permit Schedule D Special Condition 3 appears at page 4 of the permit and specifies:

> "Prior to construction or modification of any wastewater control facility the Department shall approve all detailed plans and specifications in writing. After approval of the plans, all construction shall be in strict conformance with the plans unless otherwise approved in writing by the Department."

(Ex. A-9 at 4.)

B. The Conclusions of Law as set out on Page 4 of the Amended Proposed Order are modified to read:

1. Respondent installed two on-site sewage systems without first obtaining a permit from DEQ, committing two violations of ORS 454.655(1) and OAR 340-071-0130(15)(a), and is liable for a penalty for each of these violations.

2. Respondent violated a condition of its WPCF permit and is liable for that penalty.

3. The appropriate penalty for these three violations is $3,656.

4. DEQ's Department Order is withdrawn.

C. The "Opinion" portion of the Proposed Amended Order is modified as follows to be consistent with this Final Contested Case Order:

(1) replacing the analysis in the second and third paragraphs on page six (continuing onto page 7) with "OAR 340-071-0130(15) refers to a singular 'on-site sewage disposal system.' Respondent installed two unconnected systems. The text and context of the rule reflects that installation of two systems constitutes two violations."

(2) replacing the analysis in the second and third full paragraphs on page seven (continuing onto page eight) with "Respondent's installation of the showers was a modification of its system. Pursuant to Permit Schedule D Special Condition 3, Respondent was required to submit the plans and specifications of the showers to DEQ and obtain DEQ approval before installing them. It failed to do so and violated ORS 468.025(2)."

(3) revising the heading on page 8 to refer to "Violations One and Two," and the heading on page 10 to refer to the WPCF violation as "Violation Three" rather than "Violation Two."

(4) replacing the analysis of the mental state (M) factor with respect to the WPCF violation, which begins in the last paragraph of page 10 and continues onto page 11 with "Pursuant to OAR 340-012-0145(5)(a)(B), Respondent is presumed to have at least constructive knowledge of the content of its own WPCF permit. When Respondent nonetheless elected to pursue a course of conduct that violated its permit, Respondent failed to take reasonable care and was, therefore, negligent."

D. The discussion of the civil penalty for violation of the on-site sewage system statutes and rule is modified to include a second civil penalty covering the installation of the second on-site system. This penalty equals $1500, reflecting the base penalty of $1,250 plus $250 based on a value of 2 assigned for both the occurrence and mental state factors, and a value of -2 for the cooperation factor.

E. The discussion of the civil penalty for the violation of the WPCF permit condition is modified to assess a total penalty of $625, which reflects the adjustment of the mental state factor from 0 to 2 for acting with negligence or constructive knowledge of the provisions of Schedule D, Special Condition 3 of the permit.

Dated this 13th day of December, 2007.

Lynn Hampton, Chair
Environmental Quality Commission

Notice of Appeal Rights

RIGHT TO JUDICIAL REVIEW: You have the right to appeal this Order to the Oregon Court of Appeals pursuant to ORS 183.482. To appeal you must file a petition for judicial review with the Court of Appeals within 60 days from the day this Order was served on you. If this Order was personally delivered to you, the date of service is the day you received the Order. If this Order was mailed to you, the date of service is the day it was *mailed*, not the day you received it. If you do not file a petition for judicial review within the 60-day time period, you will lose your right to appeal.

Attachment A (Amended Proposed Order)
Attachment B (Red-line showing modifications to Amended Proposed Order)

GENU6599.DOC

ATTACHMENT A

BEFORE THE OFFICE OF ADMINISTRATIVE HEARINGS
STATE OF OREGON
for the
THE ENVIRONMENTAL QUALITY COMMISSION

In the Matter of:	)	**AMENDED**
	)	**PROPOSED ORDER**
	)	**ASSESSING CIVIL**
	)	**PENALTY**
SHILO MANAGEMENT CORPORATION,	)	
Respondent	)	**WQ/D-ER-06-054**
	)	**WALLOWA COUNTY**
	)	**OAH Case No. 129617**

HISTORY OF THE CASE

On April 28, 2006, the Department of Environmental Quality for the State of Oregon (DEQ) issued a Notice of Violation, Department Order, and Assessment of Civil Penalty to Shilo Management Corporation (Respondent). The Notice alleged that Respondent installed sewage systems without first applying for a permit. Respondent filed a timely request for hearing. The matter was referred to the Office of Administrative Hearings (OAH) on July 31, 2006.

A hearing was held in Portland, Oregon on October 17, 2006, before Administrative Law Judge Lawrence S. Smith of the OAH. Respondent was represented by Philip S. Harris, vice president/assistant general counsel for Respondent. He and Timothy Cardwell, assistant general counsel for Respondent, testified. Environmental Law Specialist Bryan Smith represented DEQ and called two witnesses—Heidi Williams, water quality engineer for DEQ, and by telephone, Diane Naglee, natural resources specialist for DEQ. The record was closed at the end of the hearing.

ISSUES

1. Whether Respondent violated ORS 454.655(1) and OAR 340-071-0130(15)(a) by installing on-site sewage systems without first obtaining a permit from DEQ. If so, what were the number of violations?

2. Whether Respondent violated a condition of its Water Pollution Control Facilities (WPCF) permit and is liable for a penalty pursuant to ORS 468B.025(2).

3. If Respondent committed any of these violations, what is the appropriate penalty?

4. Whether DEQ's Department Order should be upheld. At hearing, DEQ reported that Respondent had met the requirements in the Department Order, so DEQ no longer sought the Order.

EVIDENTIARY RULING

Exhibits A1 through A11 offered by DEQ were admitted to the record without objection. Exhibits R1 and R2 offered by Respondent were admitted. DEQ's relevance objection to Exhibit R2 was overruled. At hearing, Official Notice was taken of P1 through P3: the Notice of Violation, the Respondent's Request for Hearing, and the Notice of Hearing.

FINDINGS OF FACT

1. Shilo Management Corporation (Respondent) owned the Shilo Inn (Inn), located at 84570 Bartlett Road, in Troy, Oregon, at the times relevant to this case. On the Inn's property are 13 spaces and hookups for recreational vehicles along the Grand Ronde River and seven spaces and hookups for recreational vehicles along the Wenaha River. (Test. of Williams.)

2. Sometime in 2004, one of Respondent's employees had two sewage systems installed to serve the recreational vehicle spaces. (Stipulation of DEQ and Respondent.) The installation of the two systems involved considerable work and took more than one day. (Test. of Naglee.) One system was to serve the 13 spaces along the Grande Ronde River and consisted of a 1,000 gallon dosing septic tank (stamped as manufactured in May 2004) and of a pressurized distribution system (drainfield). On top of the drainfield, the employee had a sprinkler system installed. The other system was to serve the seven spaces along the Wenaha River and consisted of a 1,000 gallon concrete manufactured septic tank (stamped as manufactured on June 11, 2004), which was a holding tank and not connected to a drainfield. (Ex. A11; test. of Naglee.) The employee promised his supervisors that he would properly and legally install the sewage systems. (Test. of Harris.) The employee did not obtain a permit from DEQ before installing the systems. (Stipulation of the parties.) The cost of such a permit and required fees from DEQ at that time were: $685 for site evaluation fee; $330 for plan review fee; $600 for permit modification fee; and $60 for filing fee. (Ex. A6 at 2.)

3. Later in 2004, the same employee had three new showers installed at the Inn for the owners of the recreational vehicles, so that they could avoid taking showers in their vehicles, which were smaller and more cramped. The installation took more than one day. The employee did not seek authorization from DEQ before doing so. The new showers did not result in an increase in gray or sewer water. (Test. of Harris; concession of DEQ.)

4. On January 20, 2005, Respondent discharged the employee for theft and other violations. (Test. of Harris.) On November 15, 2005, Respondent filed a Complaint against the employee in Union County Circuit Court for conversion, replevin, trespass to chattels, breach of contract, unjust enrichment, constructive trust, and timber trespass. (Ex. R2.) Respondent believes that the former employee filed a complaint against it with DEQ, which led to the DEQ inspection on October 12, 2005. (Test. of Harris and

Cardwell.) After this inspection, DEQ issued a Pre-Enforcement Notice (PEN) to Respondent on October 19, 2005, advising it that it permitted installation of on-site sewage systems without prior authorization or permit from DEQ and that it installed three showers without submission of plans and specifications to DEQ in violation of its Water Pollution Control Facilities (WPCF) permit. (Ex. A5.)

5. Respondent's WPCF permit was issued on September 11, 2002, and states in parts relevant to DEQ's alleged violation:

> **SECTION D. REPORTING REQUIREMENTS**
>
> 1. Plan Submittal
>
> Pursuant to Oregon Revised Statute 468B.055, unless specifically exempted by rule, no construction, installation or modification of disposal systems, treatment works, or sewerage systems shall be commenced until plans and specifications are submitted to and approved in writing by the [DEQ]. All construction, installation or modification shall be in strict conformance with the [DEQ's] written approval of the plans.
>
> 2. Change in Discharge
>
> Whenever a facility expansion, production increase, or process modification is anticipated which result in a change in the character of pollutants to be discharged or which will result in a new or increased discharge that will exceed the conditions of this permit, a new application must be submitted together with the necessary reports, plans, and specifications for the proposed changes. No change shall be made until plans have been approved and a new permit or permit modification has been issued.
>
> 3. Signatory Requirements
>
> All applications, reports or information submitted to the [DEQ] shall be signed and certified by the official applicant of record (owner) or authorized designee.

(Ex. A9 at 5 and 6, emphasis in original.)

6. On June 7, 2006, a Natural Resources Specialist (Specialist) for DEQ conducted a site evaluation of the unpermitted sewage systems installed by the former employee. The Specialist concluded that the systems were too small to handle the maximum daily sewage flow, they contained no alarms for when the tanks holding sewage approach capacity, the tanks were too close to the property line or water, the drainfield was too small, and the sprinkler system over the drainfield had the potential of

contaminating ground water. These results were sent to Respondent in a Site Evaluation Report mailed on June 27, 2006. (Ex. A11.)

7. After Respondent received the PEN, it understood that it needed to replace the sewage systems installed by its former employee and started taking steps to do so, such as pumping out the sewage from the tanks. (Test. of Cardwell and Harris.) Respondent has completely replaced both systems, paying $15,822.74 for required fees and related costs, including employee time, architectural services, and sewer services to empty the tanks of the old systems. DEQ required Respondent to secure only one permit for the work. (Ex. R1; test. of Harris.) DEQ and Respondent stipulated that Respondent was very cooperative and that the cooperation factor in regards to any possible civil penalty is minus two (-2). (Stipulation of DEQ and Respondent.)

8. DEQ's alleged economic benefit (EB) was based on Respondent failing to obtain one permit for installing the sewage systems. (Exhibits 1 and 2 to Ex. P1.)

9. DEQ concedes that Respondent has satisfied the requirements in the Department Order issued with the Notice of Violation in this case and withdrew the Department Order on the record.

CONCLUSIONS OF LAW

1. Respondent installed on-site sewage systems without first obtaining a permit from DEQ, committing only one violation.

2. Respondent violated a condition of its WPCF and is liable for a penalty.

3. The appropriate penalty is $2,031 for the two violations.

4. DEQ's Department Order is withdrawn.

OPINION

As proponent of the facts and conclusions in its Notice of Violation, DEQ has the burden of proving those facts and conclusions. ORS 183.450(2) (The burden of presenting evidence to support a fact or position in a contested case rests on the proponent of the fact or position). The standard of proof is preponderance of evidence. *Cook v. Employment Div.*, 47 Or App 437 (1980) (In the absence of contrary legislation, the standard of proof in administrative hearings is preponderance of evidence).

DEQ alleged three violations and penalties associated with the violations, which are considered separately below.

1. Obtaining a permit

"[T]he Environmental Quality Commission shall adopt such rules as it considers necessary for the purpose of carrying out ORS 454.605 to 454.755." ORS 454.625.

OAR 340-071-0130 implements ORS 454.615[1] and 454.655(1)[2] and provides the general standards, prohibitions and requirements with regard to pollution of the waters of the state. Subsection (15) of the rule states:

> Permit requirements.
> (a) A person may not cause or allow construction, alteration, or repair of a system or any part thereof without a WPCF permit issued under OAR 340-071-0162 or a construction-installation, alteration, or repair permit under OAR 340-071-0160, 340-071-0210, and 340-071-0215 except for emergency repairs authorized under OAR 340-071-0215(1) and (2).

DEQ alleged in its Notice of Violation that Respondent allowed the construction of two on-site sewage disposal systems without first applying for and obtaining a permit from DEQ. Respondent did not dispute that its employee had two sewage disposal systems installed on the property without first obtaining a permit from DEQ. Respondent argued that it was required to obtain only one permit because both systems were installed on the same property at the same time. The conflict over the number of violations raises an issue of rule interpretation.

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[1] "The Environmental Quality Commission shall by September 1, 1975, adopt by rule standards which:

(1) Prescribe minimum requirements for the design and construction of subsurface sewage disposal systems, alternative sewage disposal systems and nonwater-carried sewage disposal facilities or parts thereof including grading, excavating and earth-moving work connected therewith, and allow for use of alternative systems and component materials consistent with the minimum requirements. Requirements prescribed under this section may vary in different areas or regions of the state.

(2) Prescribe minimum requirements for the operation and maintenance of subsurface sewage disposal systems, alternative sewage disposal systems and nonwater-carried sewage disposal facilities or parts thereof.

(3) Prescribe requirements for the pumping out or cleaning of subsurface sewage disposal systems, alternative sewage disposal systems and nonwater-carried sewage disposal facilities or parts thereof, for the disposal of material derived from such pumping out or cleaning, for sewage pumping equipment, for sewage tank trucks and for the identification of sewage tank trucks and workers.

(4) Prescribe requirements for handling kitchen, bath and laundry wastes as opposed to human and animal wastes which recognize the possibility for separate treatment of different types of waste."

[2] " Except as otherwise provided in ORS 454.675, without first obtaining a permit from the Department of Environmental Quality, no person shall construct or install a subsurface sewage disposal system, alternative sewage disposal system or part thereof. However, a person may undertake emergency repairs limited to replacing minor broken components of the system without first obtaining a permit."

In *PGE v. Bureau of Labor and Industries (BOLI)*, 317 Or 606 (1993), the Court set out a scheme for statutory interpretation to determine the intent of the legislature. The first step in determining its intent is examination of the text and context of the statute, including other provisions of the same statute and related statutes and legal rules of statutory and judicially developed rules of construction that bear directly on how to read the text, such as "words of common usage typically should be given their plain, natural, and ordinary meaning." *Id.* at 611. The same method of analysis is used in determining the meaning of an administrative rule. *Abu-Adas v. Employment Dept.*, 325 Or 480 (1997).

OAR 340-071-0130(15) refers to a singular "on-site sewage disposal system." Two unconnected systems were installed by Respondent's employee, but DEQ required Respondent to acquire only one permit for the correction work. Also, the economic benefit calculation, which determined the amount Respondent saved by not complying, was based on Respondent failing to obtain only one permit. Heidi Williams, DEQ's water quality engineer, reported only one violation by Respondent for failing to obtain a permit, apparently relying on the policy that Respondent would be required to obtain only one permit for installing the two systems. DEQ presented evidence that its water engineer does not decide how many violations should be charged, but other than the fact that two unconnected systems were installed, DEQ provided no other evidence or justification for charging two violations. A technical reading of the rule could perhaps result in a conclusion that, because two systems were installed, there were two violations, but that would mean that Respondent was required to obtain two permits, which it was not. One of the main purposes of requiring installers of sewage systems to obtain permits is to provide DEQ notice of the installation so that DEQ can inspect and supervise the installation. Clearly, if the installations were at different times, this purpose could not be met, but DEQ has the burden of establishing different times and has not met that burden. Therefore, based on the text and context of the rule and especially DEQ's practice of issuing only one permit for a job, no matter how many systems are installed at the same time, the rule is interpreted to have required Respondent to obtain only one permit at the time the sewage systems were installed. DEQ's allegation that Respondent had committed two violations for the same situation, failing to get a permit for the project, is contrary to that interpretation. Therefore, only one violation occurred when Respondent's employee failed to obtain a permit for the work.

A related question is the degree of deference given to DEQ for interpretation of the rules. In *Don't Waste Oregon Com. v. Energy Siting Council,* 320 Or 132 (1994), the Court held that, where an agency's interpretation of its own rule is plausible and not inconsistent with the wording of the rule itself, the rule's context, or with any other source of law, there is no basis for asserting that the rule has been misinterpreted by the agency. DEQ's interpretation is of a rule promulgated by the Environmental Quality Commission (EQC). Pursuant to *Don't Waste Oregon Com.*, DEQ's interpretation is not entitled to deference. Finally, an agency's interpretation must demonstrate a rational relationship between the facts and resulting legal conclusions. *Solosha, Inc. v. Lane County*, 201 Or App 138 (2005), relying on *McCann v. OLCC*, 27 Or App 487, 493 (1976). DEQ's conclusion that Respondent committed two violations of the same rule during the same set of circumstances, installing two sewage systems at the same time, is

not rationally related to its facts, based on its policy of requiring only one permit for installation of sewage systems on the same property at the same time. Respondent committed only one violation.

2. WPCF Violation

ORS 468B.025 provides in relevant part:

(2) No person shall violate the conditions of any waste discharge permit issued under ORS 468B.050.
(3) Violation of subsection (1) or (2) of this section is a public nuisance.

DEQ specifically alleged that Respondent modified a wastewater control facility without first gaining DEQ's approval in writing, "as required by [Section] D, Special Condition 3, of its WPCF permit." (Ex. P1 at pages 2 and 3 of the Notice.) Section D of Respondent's WPCF permit lists the following reporting requirements:

1. Plan Submittal

Pursuant to Oregon Revised Statute 468B.055, unless specifically exempted by rule, no construction, installation or modification of disposal systems, treatment works, or sewerage systems shall be commenced until plans and specifications are submitted to and approved in writing by the [DEQ]. All construction, installation or modification shall be in strict conformance with the [DEQ's] written approval of the plans.

2. Change in Discharge

Whenever a facility expansion, production increase, or process modification is anticipated which result in a change in the character of pollutants to be discharged or which will result in a new or increased discharge that will exceed the conditions of this permit, a new application must be submitted together with the necessary reports, plans, and specifications for the proposed changes. No change shall be made until plans have been approved and a new permit or permit modification has been issued.

3. Signatory Requirements

All applications, reports or information submitted to the [DEQ] shall be signed and certified by the official applicant of record (owner) or authorized designee.

DEQ concedes that the requirement in subsection 2 is not applicable because there is insufficient evidence that the modification of building new showers will result in a change in the character of the pollutants to be discharged or will result in a new or

increased discharge. DEQ asserts that Respondent violated the requirement in subsection 1 by not submitting plans and specifications of the showers to DEQ before their construction or installation. This requirement is broad and seems to address the same circumstances as in the requirement in subsection 2, which may cause some confusion. The difference between the two is that subsection 1 requires only submission of plans and specifications while subsection 2 requires applying for a permit. The broad language in subsection 1 clearly applies, even if the showers did not increase the amount of gray water. While there may be some confusion between the sections, Respondent's installation of the showers was a modification of its system and pursuant to subsection 1, Respondent was required to submit the plans and specifications of the showers to DEQ before installing them. It failed to do so and violated ORS 468B.025(2).

3. Civil Penalty

Violation One, No Permit

As explained above, DEQ has established only one violation for installing an on-site sewage system without a permit.

DEQ has the authority to assess a civil penalty for each of the violations described above. ORS 468.140(1)(b).[3]

The penalty for a violation is determined by calculating the base penalty (BP) and considering other factors, such as prior significant actions (P), past history (H), number of occurrences (O), Respondent's mental state during the violation (M), Respondent's cooperation (C), and the economic benefit (EB) Respondent gained from noncompliance (BP + [(.1 x BP) x (P + H + O + R + C)] + EB). OAR 340-012-0045, per the authority granted in ORS 468.130.

Respondent's violation of OAR 340-071-0130(15) is classified as a Class One violation. OAR 340-012-0060(1)(b).[4] OAR 340-012-0135 does not specify a particular

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[3] ORS 468.140(1)(b) states:

> Civil penalties for specified violations. (1) In addition to any other penalty provided by law, any person who violates any of the following shall incur a civil penalty for each day of violation in the amount prescribed by the schedule adopted under ORS 468.130:
> * * *
> (b) Any provision of ORS * * *, 454.605 to 454.755[.]

[4] OAR 340-012-0060(1) provides in relevant part:

> Class I:
> * * * * *
> (b) Installing or causing to be installed an onsite wastewater treatment system or any part thereof, or repairing or causing to be repaired any part thereof, without first obtaining a permit;

magnitude for the violation of causing pollution of state waters, so the magnitude is moderate unless DEQ establishes that it was major pursuant to OAR 340-012-0130(1).[5] DEQ has not claimed that the violation was major. The violation was not mild pursuant to OAR 340-012-0130(4)[6] because the violation posed more than a *de minimis* threat to human health or other environmental receptors, based on the inspection of the sewage systems by DEQ's Natural Resources Specialist on June 7, 2006. The violation was moderate.

The base penalty for a Class One, moderate violation is $1,250. OAR 340-012-0140(4)(b)(A)(ii) and OAR 340-012-0140(4)(a)(F).

DEQ alleged no prior significant actions (factor P) or past history (factor H), so these factors have no value (0). DEQ assigned a value of two (2) to the occurrence factor (O) because the violations were repeated or continuous for more than one day. Respondent argued that DEQ could not establish or presume that the installation of the sewage systems took more than one day, but such an implication is accepted under the circumstances, especially when the violation is based on installation of both systems, which took more than one day. DEQ assigned a value of two (2) to the mental state factor (M), alleging that Respondent's violation was negligent because it has had a WPCF permit since September 2002 and had constructive knowledge that it needed to secure a permit before installing the sewage systems. The negligence of its employee in performing the installations without a permit is imputed to Respondent. DEQ and Respondent stipulated that the cooperation factor (C) should be negative two (-2) because Respondent took costly and effective steps to comply after notice from DEQ.

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[5] OAR 340-012-0130(1) provides:

> For each civil penalty assessed, the magnitude is moderate unless:
> (a) A selected magnitude is specified in 340-012-0135 and information is reasonably available to the department to determine the application of that selected magnitude; or
> (b) The department determines, using information reasonably available to it, that the magnitude should be major under section (3) or minor under section (4).

[6] OAR 340-012-0130(4) provides:

> The magnitude of the violation is minor if the department finds that the violation had no more than a *de minimis* adverse impact on human health or the environment, and posed no more than a *de minimis* threat to human health or other environmental receptors. In making this finding, the department will consider all reasonably available information including, but not limited to: the degree of deviation from applicable statutes or commission and department rules, standards, permits or orders; the extent of actual or threatened effects of the violation; the concentration, volume, or toxicity of the materials involved; and the duration of the violation. In making this finding, the department may consider any single factor to be conclusive.

"The Economic Benefit (EB) is the approximate dollar value of the benefit gained and the costs avoided or delayed (without duplication) as a result of the respondent's noncompliance." OAR 340-012-0150(1).

DEQ alleged that the economic benefit (EB) that Respondent received from non-compliance was $706. This amount includes $31 for delaying payment of the site evaluation fee of $685 until November 9, 2005, and $675 for failing to pay the other fees. Respondent has since paid the other fees when it replaced the sewage systems. Respondent received some economic benefit for also delaying payment of this cost, but DEQ has the burden of establishing this benefit and provided no evidence to establish this benefit. The total EB Respondent received is only $31.

The total civil penalty is the base penalty of $1,250, plus $250 (total factors of 2 (2 + 2 - 2) x $125), plus the EB amount of $31, for a total penalty for this violation of $1,531.

Violation Two, Modifying WPCF Without Prior Approval

Respondent's violation for modifying a sewage system without authorization is classified as a Class One violation. OAR 340-012-0055(1)(i).[7] DEQ alleged that the violation is minor pursuant to OAR 340-012-0130(3) because it had no more than a *de minimis* adverse impact on human health or environment.

The base penalty for a Class One, minor violation is $625. OAR 340-012-0140(4)(b)(A)(iii) and OAR 340-012-0140(4)(a).

DEQ alleged no prior significant actions (factor P) or past history (factor H), so these factors have no value (0). DEQ assigned a value of two (2) to the occurrence factor (O) because the violation was repeated or continuous for more than one day. The showers likely took more than one day to construct and connect to the sewage system. Respondent did not dispute this value, so it is accepted. DEQ assigned a value of two (2) to the mental state factor (M), alleging that Respondent's violation was negligent because it had constructive knowledge that it may not modify its wastewater control facility without first gaining DEQ's approval in writing. OAR 340-012-0030(12) states, "'Negligence' or 'Negligent' means the respondent failed to take reasonable care to avoid a foreseeable risk of conduct constituting or resulting in a violation." As explained above, Respondent technically violated section 1, but not the very similar section 2, because it was not required to secure a permit when the amount of gray or sewage water did not increase. Because of this apparent conflict in the two requirements, Respondent's

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[7] OAR 340-012-0055(1)(i) provides:

> **Class I:**
> * * * * *
> (i) Making unauthorized changes, modifications, or alterations to a facility operating under a Water Pollution Control Facility (WPCF) or National Pollutant Discharge Elimination System (NPDES) permit;

belief that it did not need to notify DEQ was not unreasonable and DEQ has not established that Respondent did not take reasonable care. Respondent was therefore not negligent in failing to seek approval from DEQ before installing the showers and connecting it to the wastewater system described in its permit. The appropriate value is zero (0). DEQ and Respondent agreed that the cooperation factor (C) should be negative two (-2). DEQ alleged no economic benefit from this violation.

The total civil penalty is the base penalty of $625, less $125 (total factors of -2, multiplied by one-tenth of the base penalty ($62.50)), for a total penalty of $500.

The total penalty for the two violations is $2,031 ($1,531 + $500).

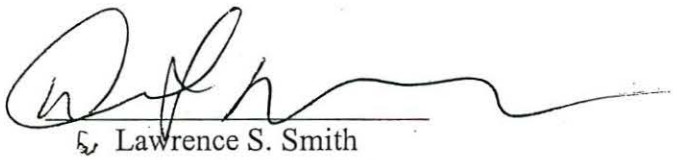
4. Department Order

At hearing, DEQ reported that Respondent had met the requirements in the Department Order, so DEQ no longer sought the Order and withdrew it.

PROPOSED ORDER

It is hereby PROPOSED that Respondent Shilo Management Corporation violated ORS 454.655(1), OAR 340-071-0130(15)(a), and ORS 468B.025(2) and is liable for a total civil penalty of $2,031.

This civil penalty will incur interest pursuant to ORS 82.010 if not paid within 10 days after signed by the Environmental Quality Commission (EQC). If the civil penalty remains unpaid for more than 10 days, this order may be filed with each County Clerk and executed.



/s/ Lawrence S. Smith
Administrative Law Judge
Office of Administrative Hearings
for the
Environmental Quality Commission

Mailing and Issuance Date: November 20, 2006

Appeal Rights

If you are not satisfied with this decision, you have the right to have the decision reviewed by the Oregon Environmental Quality Commission. To have the decision reviewed, you must file a "Petition for Review" within 30 days of the date this order is served on you as provided in Oregon Administrative Rule (OAR) 340-011-0132(1) and (2). The Petition for Review must be filed with:

Environmental Quality Commission
c/o Stephanie Hallock, Director, DEQ
811 SW Sixth Avenue
Portland, OR 97204

Within 30 days of filing the Petition for Review, you must also file exceptions and a brief as in provided in OAR 340-011-0132(3). If the petition, exceptions and brief are filed in a timely manner, the Commission will set the matter for oral argument and notify you of the time and place of the Commission's meeting. The requirements for filing a petition, exceptions and briefs are set out in OAR 340-011-0132.

Unless you timely and appropriately file a Petition for Review as set forth above, this Proposed Order becomes the Final Order of the Environmental Quality Commission 30 days from the date of service on you of this Proposed Order. If you wish to appeal the Final Order, you have 60 days from the date the Proposed Order becomes the Final Order to file a petition for review with the Oregon Court of Appeals. See ORS 183.400 et. seq.

EXHIBIT LIST

Exhibit No.	Date	Description
P1	4/28/06	Cover Letter and Notice of Violation
P2	5/12/06	Respondent's request for hearing
P3	8/10/06	Notice of Hearing
A1	10/11/05	Water Quality Source Inspection Form
A2	10/11/05	Photos and notes of RV Spaces (8 pgs.)
A3	10/11/05	Photos and notes of RV Spaces (2 pgs.)
A4	10/20/05	Letter from Respondent (4 pgs.)
A5	10/19/05	Pre-Enforcement Notice from DEQ (2pgs.)
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A7	3/29/06	Ben Calculation (10 pgs.)
A8	10/11/05	Photo and notes of showers
A9	9/11/02	Water Pollution Control Facilities Permit (WPCF) (8 pgs.)
A10	11/7/05	Respondent letter to DEQ (3 pgs.)
A11	6/27/06	Site Evaluation Report (5 pgs.)
R1	5/31/05	Troy Lodge Expenses by Respondent (4 pgs.)
R2	11/15/05	Complaint in Union County Court (11 pgs.)

CERTIFICATE OF SERVICE

I certify that on November 20, 2006, I served the attached Amended Proposed Order Assessing Civil Penalty by mailing certified and/or first class mail, in a sealed envelope, with first class postage prepaid, a copy thereof addressed as follows:

SHILO MANAGEMENT CORPORATION
11600 SW SHILO LANE
PORTLAND OR 97225

BY FIRST CLASS MAIL

PHILIP S HARRIS
ATTORNEY AT LAW
SHILO MANAGEMENT CORP
11600 SW SHILO LN
PORTLAND OR 97225

BY FIRST CLASS AND CERTIFIED MAIL
CERTIFIED MAIL RECEIPT # 7005 1160 0003 9713 7794

BRYAN SMITH
OREGON DEQ
2146 NE 4TH ST
BEND OR 97701

BY FIRST CLASS MAIL

Pamela Arcari

Pamela Arcari, Administrative Specialist
Office of Administrative Hearings

BEFORE THE OFFICE OF ADMINISTRATIVE HEARINGS
STATE OF OREGON
for the
THE ENVIRONMENTAL QUALITY COMMISSION

	)	**AMENDED**
In the Matter of:	)	**PROPOSED ORDER**
	)	**ASSESSING CIVIL**
	)	**PENALTY**
SHILO MANAGEMENT CORPORATION,	)	
Respondent	)	**WQ/D-ER-06-054**
	)	**WALLOWA COUNTY**
	)	**OAH Case No. 129617**

HISTORY OF THE CASE

On April 28, 2006, the Department of Environmental Quality for the State of Oregon (DEQ) issued a Notice of Violation, Department Order, and Assessment of Civil Penalty to Shilo Management Corporation (Respondent). The Notice alleged that Respondent installed sewage systems without first applying for a permit. Respondent filed a timely request for hearing. The matter was referred to the Office of Administrative Hearings (OAH) on July 31, 2006.

A hearing was held in Portland, Oregon on October 17, 2006, before Administrative Law Judge Lawrence S. Smith of the OAH. Respondent was represented by Philip S. Harris, vice president/assistant general counsel for Respondent. He and Timothy Cardwell, assistant general counsel for Respondent, testified. Environmental Law Specialist Bryan Smith represented DEQ and called two witnesses—Heidi Williams, water quality engineer for DEQ, and by telephone, Diane Naglee, natural resources specialist for DEQ. The record was closed at the end of the hearing.

ISSUES

1. Whether Respondent violated ORS 454.655(1) and OAR 340-071-0130(15)(a) by installing on-site sewage systems without first obtaining a permit from DEQ. If so, what were the number of violations?

2. Whether Respondent violated a condition of its Water Pollution Control Facilities (WPCF) permit and is liable for a penalty pursuant to ORS 468B.025(2).

3. If Respondent committed any of these violations, what is the appropriate penalty?

4. Whether DEQ's Department Order should be upheld. At hearing, DEQ reported that Respondent had met the requirements in the Department Order, so DEQ no longer sought the Order.

EVIDENTIARY RULING

Exhibits A1 through A11 offered by DEQ were admitted to the record without objection. Exhibits R1 and R2 offered by Respondent were admitted. DEQ's relevance objection to Exhibit R2 was overruled. At hearing, Official Notice was taken of P1 through P3: the Notice of Violation, the Respondent's Request for Hearing, and the Notice of Hearing.

FINDINGS OF FACT

1. Shilo Management Corporation (Respondent) owned the Shilo Inn (Inn), located at 84570 Bartlett Road, in Troy, Oregon, at the times relevant to this case. On the Inn's property are 13 spaces and hookups for recreational vehicles along the Grand Ronde River and seven spaces and hookups for recreational vehicles along the Wenaha River. (Test. of Williams.)

2. Sometime in 2004, one of Respondent's employees had two sewage systems installed to serve the recreational vehicle spaces. (Stipulation of DEQ and Respondent.) The installation of the two systems involved considerable work and took more than one day. (Test. of Naglee.) One system was to serve the 13 spaces along the Grande Ronde River and consisted of a 1,000 gallon dosing septic tank (stamped as manufactured in May 2004) and of a pressurized distribution system (drainfield). On top of the drainfield, the employee had a sprinkler system installed. The other system was to serve the seven spaces along the Wenaha River and consisted of a 1,000 gallon concrete manufactured septic tank (stamped as manufactured on June 11, 2004), which was a holding tank and not connected to a drainfield. (Ex. A11; test. of Naglee.) The employee promised his supervisors that he would properly and legally install the sewage systems. (Test. of Harris.) The employee did not obtain a permit from DEQ before installing the systems. (Stipulation of the parties.) The cost of such a permit and required fees from DEQ at that time were: $685 for site evaluation fee; $330 for plan review fee; $600 for permit modification fee; and $60 for filing fee. (Ex. A6 at 2.)

3. Later in 2004, the same employee had three new showers installed at the Inn for the owners of the recreational vehicles, so that they could avoid taking showers in their vehicles, which were smaller and more cramped. The installation took more than one day. The employee did not seek authorization from DEQ before doing so. The new showers did not result in an increase in gray or sewer water. (Test. of Harris; concession of DEQ.)

4. On January 20, 2005, Respondent discharged the employee for theft and other violations. (Test. of Harris.) On November 15, 2005, Respondent filed a Complaint against the employee in Union County Circuit Court for conversion, replevin, trespass to chattels, breach of contract, unjust enrichment, constructive trust, and timber trespass. (Ex. R2.) Respondent believes that the former employee filed a complaint against it with DEQ, which led to the DEQ inspection on October 12, 2005. (Test. of Harris and

Cardwell.) After this inspection, DEQ issued a Pre-Enforcement Notice (PEN) to Respondent on October 19, 2005, advising it that it permitted installation of on-site sewage systems without prior authorization or permit from DEQ and that it installed three showers without submission of plans and specifications to DEQ in violation of its Water Pollution Control Facilities (WPCF) permit. (Ex. A5.)

5. Respondent's WPCF permit was issued on September 11, 2002. The permit is included as Exhibit A-9. The Notice of Violation, Department Order and Assessment of Civil Penalty in this matter refers to the violation of Schedule D Special Condition 3 of the permit. Paragraph 3 of Section IV (Violations). Permit Schedule D Special Condition 3 appears at page 4 of the permit and specifies:

> "Prior to construction or modification of any wastewater control facility the Department shall approve all detailed plans and specifications in writing. After approval of the plans, all construction shall be in strict conformance with the plans unless otherwise approved in writing by the Department."

(Ex. A-9 at 4.)

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¶
SECTION D. REPORTING REQUIREMENTS¶
¶
1. Plan Submittal¶
¶
Pursuant to Oregon Revised Statute 468B.055, unless specifically exempted by rule, no construction, installation or modification of disposal systems, treatment works, or sewerage systems shall be commenced until plans and specifications are submitted to and approved in writing by the [DEQ]. All construction, installation or modification shall be in strict conformance with the [DEQ's] written approval of the plans.¶
¶
2. Change in Discharge¶
¶
Whenever a facility expansion, production increase, or process modification is anticipated which result in a change in the character of pollutants to be discharged or which will result in a new or increased discharge that will exceed the conditions of this permit, a new application must be submitted together with the necessary reports, plans, and specifications for the proposed changes. No change shall be made until plans have been approved and a new permit or permit modification has been issued.¶
¶
3. Signatory Requirements¶
¶
All applications, reports or information submitted to the [DEQ] shall be signed and certified by the official applicant of record (owner) or authorized designee.¶
¶
(Ex. A9 at 5 and 6, emphasis in original.)

6. On June 7, 2006, a Natural Resources Specialist (Specialist) for DEQ conducted a site evaluation of the unpermitted sewage systems installed by the former employee. The Specialist concluded that the systems were too small to handle the maximum daily sewage flow, they contained no alarms for when the tanks holding sewage approach capacity, the tanks were too close to the property line or water, the drainfield was too small, and the sprinkler system over the drainfield had the potential of contaminating ground water. These results were sent to Respondent in a Site Evaluation Report mailed on June 27, 2006. (Ex. A11.)

7. After Respondent received the PEN, it understood that it needed to replace the sewage systems installed by its former employee and started taking steps to do so, such as pumping out the sewage from the tanks. (Test. of Cardwell and Harris.) Respondent has completely replaced both systems, paying $15,822.74 for required fees and related costs, including employee time, architectural services, and sewer services to empty the tanks of the old systems. DEQ required Respondent to secure only one permit for the work. (Ex. R1; test. of Harris.) DEQ and Respondent stipulated that Respondent was very cooperative and that the cooperation factor in regards to any possible civil penalty is minus two (-2). (Stipulation of DEQ and Respondent.)

8. DEQ's alleged economic benefit (EB) was based on Respondent failing to obtain one permit for installing the sewage systems. (Exhibits 1 and 2 to Ex. P1.)

9. DEQ concedes that Respondent has satisfied the requirements in the Department Order issued with the Notice of Violation in this case and withdrew the Department Order on the record.

CONCLUSIONS OF LAW

1. Respondent installed two on-site sewage systems without first obtaining a permit from DEQ, committing two violations of ORS 454.655(1) and OAR 340-071-0130(15)(a) and is liable for a penalty for each of these violations.

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2. Respondent violated a condition of its WPCF and is liable for that penalty.

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3. The appropriate penalty for these three violations is $3,656 violations.

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4. DEQ's Department Order is withdrawn.

OPINION

As proponent of the facts and conclusions in its Notice of Violation, DEQ has the burden of proving those facts and conclusions. ORS 183.450(2) (The burden of presenting evidence to support a fact or position in a contested case rests on the proponent of the fact or position). The standard of proof is preponderance of evidence. *Cook v. Employment Div.*, 47 Or App 437 (1980) (In the absence of contrary legislation, the standard of proof in administrative hearings is preponderance of evidence).

DEQ alleged three violations and penalties associated with the violations, which are considered separately below.

1. Obtaining a permit

"[T]he Environmental Quality Commission shall adopt such rules as it considers necessary for the purpose of carrying out ORS 454.605 to 454.755." ORS 454.625.

OAR 340-071-0130 implements ORS 454.615[1] and 454.655(1)[2] and provides the general standards, prohibitions and requirements with regard to pollution of the waters of the state. Subsection (15) of the rule states:

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[1] "The Environmental Quality Commission shall by September 1, 1975, adopt by rule standards which:

(1) Prescribe minimum requirements for the design and construction of subsurface sewage disposal systems, alternative sewage disposal systems and nonwater-carried sewage disposal facilities or parts thereof including grading, excavating and earth-moving work connected therewith, and allow for use of alternative systems and component materials consistent with the minimum requirements. Requirements prescribed under this section may vary in different areas or regions of the state.

(2) Prescribe minimum requirements for the operation and maintenance of subsurface sewage disposal systems, alternative sewage disposal systems and nonwater-carried sewage disposal facilities or parts thereof.

(3) Prescribe requirements for the pumping out or cleaning of subsurface sewage disposal systems, alternative sewage disposal systems and nonwater-carried sewage disposal facilities or

Permit requirements.
(a) A person may not cause or allow construction, alteration, or repair of a system or any part thereof without a WPCF permit issued under OAR 340-071-0162 or a construction-installation, alteration, or repair permit under OAR 340-071-0160, 340-071-0210, and 340-071-0215 except for emergency repairs authorized under OAR 340-071-0215(1) and (2).

DEQ alleged in its Notice of Violation that Respondent allowed the construction of two on-site sewage disposal systems without first applying for and obtaining a permit from DEQ. Respondent did not dispute that its employee had two sewage disposal systems installed on the property without first obtaining a permit from DEQ. Respondent argued that it was required to obtain only one permit because both systems were installed on the same property at the same time. The conflict over the number of violations raises an issue of rule interpretation.

In *PGE v. Bureau of Labor and Industries (BOLI)*, 317 Or 606 (1993), the Court set out a scheme for statutory interpretation to determine the intent of the legislature. The first step in determining its intent is examination of the text and context of the statute, including other provisions of the same statute and related statutes and legal rules of statutory and judicially developed rules of construction that bear directly on how to read the text, such as "words of common usage typically should be given their plain, natural, and ordinary meaning." *Id.* at 611. The same method of analysis is used in determining the meaning of an administrative rule. *Abu-Adas v. Employment Dept.*, 325 Or 480 (1997).

OAR 340-071-0130(15) refers to a singular "on-site sewage disposal system." Respondent installed two unconnected systems. The text and context of the rule reflects that installation of two systems constitutes two violations.

2. WPCF Violation

ORS 468B.025 provides in relevant part:

(2) No person shall violate the conditions of any waste discharge permit issued under ORS 468B.050.

---

parts thereof, for the disposal of material derived from such pumping out or cleaning, for sewage pumping equipment, for sewage tank trucks and for the identification of sewage tank trucks and workers.

(4) Prescribe requirements for handling kitchen, bath and laundry wastes as opposed to human and animal wastes which recognize the possibility for separate treatment of different types of waste."

[2] " Except as otherwise provided in ORS 454.675, without first obtaining a permit from the Department of Environmental Quality, no person shall construct or install a subsurface sewage disposal system, alternative sewage disposal system or part thereof. However, a person may undertake emergency repairs limited to replacing minor broken components of the system without first obtaining a permit."

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¶
OAR 340-071-0130(15) refers to a singular "on-site sewage disposal system." Two unconnected systems were installed by Respondent's employee, but DEQ required Respondent to acquire only one permit for the correction work. Also, the economic benefit calculation, which determined the amount Respondent saved by not complying, was based on Respondent failing to obtain only one permit. Heidi Williams, DEQ's water quality engineer, reported only one violation by Respondent for failing to obtain a permit, apparently relying on the policy that Respondent would be required to obtain only one permit for installing the two systems. DEQ presented evidence that its water engineer does not decide how many violations should be charged, but other than the fact that two unconnected systems were installed, DEQ provided no other evidence or justification for charging two violations. A technical reading of the rule could perhaps result in a conclusion that, because two systems were installed, there were two violations, but that would mean that Respondent was required to obtain two permits, which it was not. One of the main purposes of requiring installers of sewage systems to obtain permits is to provide DEQ notice of the installation so that DEQ can inspect and supervise the installation. Clearly, if the installations were at different times, this purpose could not be met, but DEQ has the burden of establishing different times and has not met that burden. Therefore, based on the text and context of the rule and especially DEQ's practice of issuing only one permit for a job, no matter how many systems are installed at the same time, the rule is interpreted to have required Respondent to obtain only one permit at the time the sewage systems were installed. DEQ's allegation that Respondent had committed two violations for the same situation, failing to get a permit for the project, is contrary to that interpretation. Therefore, only one violation occurred when Respondent's employee failed to obtain a permit for the work.¶
¶
A related question is the degree of deference given to DEQ for interpretation of the rules. In *Don't Waste Oregon Com. v. Energy Siting Council*, 320 Or 132 (1994), the Court held that, where an agency's interpretation of its own rule is plausible and not inconsistent with the wording of the rule itself, the rule's context, or with any other source of law, there is no basis for asserting that the rule has been misinterpreted by the agency. [1]

(3) Violation of subsection (1) or (2) of this section is a public nuisance.

Respondent's installation of the showers was a modification of its system. Pursuant to Permit Schedule D Special Condition 3, Respondent was required to submit the plans and specifications of the showers to DEQ and obtain DEQ approval before installing them. It failed to do so and violated ORS 468.025(2).

3. Civil Penalty

Violations One and Two, No Permit

As explained above, DEQ has established two violations for installing an on-site sewage system without a permit.

DEQ has the authority to assess a civil penalty for each of the violations described above. ORS 468.140(1)(b).[3]

The penalty for a violation is determined by calculating the base penalty (BP) and considering other factors, such as prior significant actions (P), past history (H), number of occurrences (O), Respondent's mental state during the violation (M), Respondent's cooperation (C), and the economic benefit (EB) Respondent gained from noncompliance (BP + [(.1 x BP) x (P + H + O + R + C)] + EB). OAR 340-012-0045, per the authority granted in ORS 468.130.

Respondent's violation of OAR 340-071-0130(15) is classified as a Class One violation. OAR 340-012-0060(1)(b).[4] OAR 340-012-0135 does not specify a particular magnitude for the violation of causing pollution of state waters, so the magnitude is

[3] ORS 468.140(1)(b) states:

> Civil penalties for specified violations. (1) In addition to any other penalty provided by law, any person who violates any of the following shall incur a civil penalty for each day of violation in the amount prescribed by the schedule adopted under ORS 468.130:
> * * *
> (b) Any provision of ORS * * *, 454.605 to 454.755[.]

[4] OAR 340-012-0060(1) provides in relevant part:

> Class I:
> * * * * *
> (b) Installing or causing to be installed an onsite wastewater treatment system or any part thereof, or repairing or causing to be repaired any part thereof, without first obtaining a permit;

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Deleted: DEQ specifically alleged that Respondent modified a wastewater control facility without first gaining DEQ's approval in writing, "as required by [Section] D, Special Condition 3, of its WPCF permit." (Ex. P1 at pages 2 and 3 of the Notice.) Section D of Respondent's WPCF permit lists the following reporting requirements:¶
¶
1. Plan Submittal¶
¶
Pursuant to Oregon Revised Statute 468B.055, unless specifically exempted by rule, no construction, installation or modification of disposal systems, treatment works, or sewerage systems shall be commenced until plans and specifications are submitted to and approved in writing by the [DEQ]. All construction, installation or modification shall be in strict conformance with the [DEQ's] written approval of the plans.¶
¶
2. Change in Discharge¶
¶
Whenever a facility expansion, production increase, or process modification is anticipated which result in a change in the character of pollutants to be discharged or which will result in a new or increased discharge that will exceed the conditions of this permit, a new application must be submitted together with the necessary reports, plans, and specifications for the proposed changes. No change shall be made until plans have been approved and a new permit or permit modification has been issued.¶
¶
3. Signatory Requirements¶
¶
All applications, reports or information submitted to the [DEQ] shall be signed and certified by the official applicant of record (owner) or authorized designee.¶
¶
. DEQ concedes that the requirement in subsection 2 is not applicable because there is insufficient evidence that the modification of building new showers will result in a change in the character of the pollutants to be discharged or will result in a new or increased discharge. DEQ asserts that Respondent violated the requirement in subsection 1 by not submitting plans and specifications of the showers to DEQ before their construction or installation. This requirement is broad and seems to address the same circumstances as in the requirement in subsection 2, which may cause some confusion. The difference between the two is that subsection 1 requires only submission of plans and specifications ... [2]

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moderate unless DEQ establishes that it was major pursuant to OAR 340-012-0130(1).[5] DEQ has not claimed that the violation was major. The violation was not mild pursuant to OAR 340-012-0130(4)[6] because the violation posed more than a *de minimis* threat to human health or other environmental receptors, based on the inspection of the sewage systems by DEQ's Natural Resources Specialist on June 7, 2006. The violation was moderate.

The base penalty for a Class One, moderate violation is $1,250. OAR 340-012-0140(4)(b)(A)(ii) and OAR 340-012-0140(4)(a)(F).

DEQ alleged no prior significant actions (factor P) or past history (factor H), so these factors have no value (0). DEQ assigned a value of two (2) to the occurrence factor (O) because the violations were repeated or continuous for more than one day. Respondent argued that DEQ could not establish or presume that the installation of the sewage systems took more than one day, but such an implication is accepted under the circumstances, especially when the violation is based on installation of both systems, which took more than one day. DEQ assigned a value of two (2) to the mental state factor (M), alleging that Respondent's violation was negligent because it has had a WPCF permit since September 2002 and had constructive knowledge that it needed to secure a permit before installing the sewage systems. The negligence of its employee in performing the installations without a permit is imputed to Respondent. DEQ and Respondent stipulated that the cooperation factor (C) should be negative two (-2) because Respondent took costly and effective steps to comply after notice from DEQ.

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[5] OAR 340-012-0130(1) provides:

> For each civil penalty assessed, the magnitude is moderate unless:
> (a) A selected magnitude is specified in 340-012-0135 and information is reasonably available to the department to determine the application of that selected magnitude; or
> (b) The department determines, using information reasonably available to it, that the magnitude should be major under section (3) or minor under section (4).

[6] OAR 340-012-0130(4) provides:

> The magnitude of the violation is minor if the department finds that the violation had no more than a *de minimis* adverse impact on human health or the environment, and posed no more than a *de minimis* threat to human health or other environmental receptors. In making this finding, the department will consider all reasonably available information including, but not limited to: the degree of deviation from applicable statutes or commission and department rules, standards, permits or orders; the extent of actual or threatened effects of the violation; the concentration, volume, or toxicity of the materials involved; and the duration of the violation. In making this finding, the department may consider any single factor to be conclusive.

"The Economic Benefit (EB) is the approximate dollar value of the benefit gained and the costs avoided or delayed (without duplication) as a result of the respondent's noncompliance." OAR 340-012-0150(1).

DEQ alleged that the economic benefit (EB) that Respondent received from non-compliance was $706. This amount includes $31 for delaying payment of the site evaluation fee of $685 until November 9, 2005, and $675 for failing to pay the other fees. Respondent has since paid the other fees when it replaced the sewage systems. Respondent received some economic benefit for also delaying payment of this cost, but DEQ has the burden of establishing this benefit and provided no evidence to establish this benefit. The total EB Respondent received is only $31.

The total civil penalty is the base penalty of $1,250, plus $250 (total factors of (2 + 2 - 2) x $125), plus the EB amount of $31, for a total penalty for violation one of $1,531. DEQ assessed EB only once for violations one and two. Thus, the total penalty for violation two is $1,500.

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Violation Three, Modifying WPCF Without Prior Approval

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Respondent's violation for modifying a sewage system without authorization is classified as a Class One violation. OAR 340-012-0055(1)(i).[7] DEQ alleged that the violation is minor pursuant to OAR 340-012-0130(3) because it had no more than a *de minimis* adverse impact on human health or environment.

The base penalty for a Class One, minor violation is $625. OAR 340-012-0140(4)(b)(A)(iii) and OAR 340-012-0140(4)(a).

DEQ alleged no prior significant actions (factor P) or past history (factor H), so these factors have no value (0). DEQ assigned a value of two (2) to the occurrence factor (O) because the violation was repeated or continuous for more than one day. The showers likely took more than one day to construct and connect to the sewage system. Respondent did not dispute this value, so it is accepted. DEQ assigned a value of two (2) to the mental state factor (M), alleging that Respondent's violation was negligent because it had constructive knowledge that it may not modify its wastewater control facility without first gaining DEQ's approval in writing. OAR 340-012-0030(12) states, "'Negligence' or 'Negligent' means the respondent failed to take reasonable care to avoid a foreseeable risk of conduct constituting or resulting in a violation." Pursuant to OAR 340-012-0145(5)(a)(B), Respondent is presumed to have at least constructive knowledge of the content of its own WPCF permit. When Respondent nonetheless elected to pursue

[7] OAR 340-012-0055(1)(i) provides:

> **Class I:**
> * * * * *
> (i) Making unauthorized changes, modifications, or alterations to a facility operating under a Water Pollution Control Facility (WPCF) or National Pollutant Discharge Elimination System (NPDES) permit;

a course of conduct that violated its permit, Respondent failed to take reasonable care and was, therefore, negligent. The appropriate value is two (2). DEQ and Respondent agreed that the cooperation factor (C) should be negative two (-2). DEQ alleged no economic benefit from this violation.

The total civil penalty for this violation is $625.

The total penalty for the three violations is $3,656 ($1,531 + $1500 + $625).

4. Department Order

At hearing, DEQ reported that Respondent had met the requirements in the Department Order, so DEQ no longer sought the Order and withdrew it.

PROPOSED ORDER

It is hereby PROPOSED that Respondent Shilo Management Corporation violated ORS 454.655(1), OAR 340-071-0130(15)(a), and ORS 468B.025(2) and is liable for a total civil penalty of $2,031.

This civil penalty will incur interest pursuant to ORS 82.010 if not paid within 10 days after signed by the Environmental Quality Commission (EQC). If the civil penalty remains unpaid for more than 10 days, this order may be filed with each County Clerk and executed.

Lawrence S. Smith
Administrative Law Judge
Office of Administrative Hearings
for the
Environmental Quality Commission

Mailing and Issuance Date: November 20, 2006

Appeal Rights

Deleted: As explained above, Respondent technically violated section 1, but not the very similar section 2, because it was not required to secure a permit when the amount of gray or sewage water did not increase. Because of this apparent conflict in the two requirements, Respondent's belief that it did not need to notify DEQ was not unreasonable and DEQ has not established that Respondent did not take reasonable care. Respondent was therefore not negligent in failing to seek approval from DEQ before installing the showers and connecting it to the wastewater system described in its permit.

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If you are not satisfied with this decision, you have the right to have the decision reviewed by the Oregon Environmental Quality Commission. To have the decision reviewed, you must file a "Petition for Review" within 30 days of the date this order is served on you as provided in Oregon Administrative Rule (OAR) 340-011-0132(1) and (2). The Petition for Review must be filed with:

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A10	11/7/05	Respondent letter to DEQ (3 pgs.)
A11	6/27/06	Site Evaluation Report (5 pgs.)
R1	5/31/05	Troy Lodge Expenses by Respondent (4 pgs.)
R2	11/15/05	Complaint in Union County Court (11 pgs.)

CERTIFICATE OF SERVICE

I certify that on November 20, 2006, I served the attached Amended Proposed Order Assessing Civil Penalty by mailing certified and/or first class mail, in a sealed envelope, with first class postage prepaid, a copy thereof addressed as follows:

SHILO MANAGEMENT CORPORATION
11600 SW SHILO LANE
PORTLAND OR 97225

BY FIRST CLASS MAIL

PHILIP S HARRIS
ATTORNEY AT LAW
SHILO MANAGEMENT CORP
11600 SW SHILO LN
PORTLAND OR 97225

BY FIRST CLASS AND CERTIFIED MAIL
CERTIFIED MAIL RECEIPT # 7005 1160 0003 9713 7794

BRYAN SMITH
OREGON DEQ
2146 NE 4TH ST
BEND OR 97701

BY FIRST CLASS MAIL

Pamela Arcari, Administrative Specialist
Office of Administrative Hearings

OAR 340-071-0130(15) refers to a singular "on-site sewage disposal system." Two unconnected systems were installed by Respondent's employee, but DEQ required Respondent to acquire only one permit for the correction work. Also, the economic benefit calculation, which determined the amount Respondent saved by not complying, was based on Respondent failing to obtain only one permit. Heidi Williams, DEQ's water quality engineer, reported only one violation by Respondent for failing to obtain a permit, apparently relying on the policy that Respondent would be required to obtain only one permit for installing the two systems. DEQ presented evidence that its water engineer does not decide how many violations should be charged, but other than the fact that two unconnected systems were installed, DEQ provided no other evidence or justification for charging two violations. A technical reading of the rule could perhaps result in a conclusion that, because two systems were installed, there were two violations, but that would mean that Respondent was required to obtain two permits, which it was not. One of the main purposes of requiring installers of sewage systems to obtain permits is to provide DEQ notice of the installation so that DEQ can inspect and supervise the installation. Clearly, if the installations were at different times, this purpose could not be met, but DEQ has the burden of establishing different times and has not met that burden. Therefore, based on the text and context of the rule and especially DEQ's practice of issuing only one permit for a job, no matter how many systems are installed at the same time, the rule is interpreted to have required Respondent to obtain only one permit at the time the sewage systems were installed. DEQ's allegation that Respondent had committed two violations for the same situation, failing to get a permit for the project, is contrary to that interpretation. Therefore, only one violation occurred when Respondent's employee failed to obtain a permit for the work.

A related question is the degree of deference given to DEQ for interpretation of the rules. In *Don't Waste Oregon Com. v. Energy Siting Council,* 320 Or 132 (1994), the Court held that, where an agency's interpretation of its own rule is plausible and not inconsistent with the wording of the rule itself, the rule's context, or with any other source of law, there is no basis for asserting that the rule has been misinterpreted by the agency. DEQ's interpretation is of a rule promulgated by the Environmental Quality Commission (EQC). Pursuant to *Don't Waste Oregon Com.*, DEQ's interpretation is not entitled to deference. Finally, an agency's interpretation must demonstrate a rational relationship between the facts and resulting legal conclusions. *Solosha, Inc. v. Lane County*, 201 Or App 138 (2005), relying on *McCann v. OLCC*, 27 Or App 487, 493 (1976). DEQ's conclusion that Respondent committed two violations of the same rule during the same set of circumstances, installing two sewage systems at the same time, is not rationally related to its facts, based on its policy of requiring only one permit for installation of sewage systems on the same property at the same time. Respondent committed only one violation.

DEQ specifically alleged that Respondent modified a wastewater control facility without first gaining DEQ's approval in writing, "as required by [Section] D, Special Condition 3,

of its WPCF permit." (Ex. P1 at pages 2 and 3 of the Notice.) Section D of Respondent's WPCF permit lists the following reporting requirements:

> 1. Plan Submittal
>
> Pursuant to Oregon Revised Statute 468B.055, unless specifically exempted by rule, no construction, installation or modification of disposal systems, treatment works, or sewerage systems shall be commenced until plans and specifications are submitted to and approved in writing by the [DEQ]. All construction, installation or modification shall be in strict conformance with the [DEQ's] written approval of the plans.
>
> 2. Change in Discharge
>
> Whenever a facility expansion, production increase, or process modification is anticipated which result in a change in the character of pollutants to be discharged or which will result in a new or increased discharge that will exceed the conditions of this permit, a new application must be submitted together with the necessary reports, plans, and specifications for the proposed changes. No change shall be made until plans have been approved and a new permit or permit modification has been issued.
>
> 3. Signatory Requirements
>
> All applications, reports or information submitted to the [DEQ] shall be signed and certified by the official applicant of record (owner) or authorized designee.

DEQ concedes that the requirement in subsection 2 is not applicable because there is insufficient evidence that the modification of building new showers will result in a change in the character of the pollutants to be discharged or will result in a new or increased discharge. DEQ asserts that Respondent violated the requirement in subsection 1 by not submitting plans and specifications of the showers to DEQ before their construction or installation. This requirement is broad and seems to address the same circumstances as in the requirement in subsection 2, which may cause some confusion. The difference between the two is that subsection 1 requires only submission of plans and specifications while subsection 2 requires applying for a permit. The broad language in subsection 1 clearly applies, even if the showers did not increase the amount of gray water. While there may be some confusion between the sections, Respondent's installation of the showers was a modification of its system and pursuant to subsection 1, Respondent was required to submit the plans and specifications of the showers to DEQ before installing them. It failed to do so and violated ORS 468B.025(2).

State of Oregon

Department of Environmental Quality Memorandum

Date: May 30, 2007

To: Environmental Quality Commission

From: Stephanie Hallock, Director

Dut Pkn for Stephanie Hallock

Subject: Agenda Item J: Contested Case No. WQ/D-ER-06-054 regarding Shilo Management Corporation, June 21, 2007, EQC Meeting

Appeal to EQC

The Oregon Department of Environmental Quality (the Department or DEQ) implements environmental protection laws. Most people voluntarily comply with the laws; however, sometimes the Department must assess civil penalties and orders to compel compliance or create deterrence. When a person or business does not agree with the Department's enforcement action, they have the right to an appeal and a contested case hearing before an Administrative Law Judge (ALJ).

On April 28, 2006, the Department issued Shilo Management Corporation (Respondent) a Notice of Violation, Department Order and Assessment of Civil Penalty (Notice and Order, Attachment K) alleging three violations. On May 12, 2006, Respondent appealed the Notice and Order, and a contested case hearing was held on October 17, 2006. The ALJ issued an Amended Proposed Order (Attachment G) on November 20, 2006, and on December 15, 2006, the Department appealed the Amended Proposed Order.

Background

In the Amended Proposed Order, the ALJ made the following Findings of Fact (FOF):

At all times relevant to this case, Shilo Management Corporation (Respondent) owned the Shilo Inn, located at 84570 Bartlett Road, in Troy, Oregon. The property has 13 spaces and hookups for recreational vehicles along the Grand Ronde River and 7 spaces and hookups for recreational vehicles along the Wenaha River (FOF 1.) The Department issued Respondent a Water Pollution Control Facilities (WPCF) permit on September 11, 2002, which covered the management of domestic wastewater and RV septage at the property. The WPCF permit was in effect at all relevant times (FOF 4 and 5.)

Sometime in 2004, one of Respondent's employees had two onsite sewage disposal systems installed to serve the recreational vehicle spaces (Violations 1 and 2.) One system was to serve the 13 spaces along the Grande Ronde River and consisted of a 1,000-gallon dosing septic tank and a pressurized distribution system (drainfield). The other system was to serve the 7 spaces along the Wenaha River and consisted of a 1,000-gallon concrete manufactured septic tank

which was a holding tank and not connected to a drainfield. The employee did not obtain a permit from DEQ before installing either system (FOF 2.)

Later in 2004, the same employee had three new showers installed at the Inn (Violation 3.) The employee did not seek authorization from DEQ before doing so (FOF 3.)

On October 12, 2005, Department staff inspected the onsite systems and the showers, in response to a complaint. On October 19, 2005, the Department issued Respondent a Pre-Enforcement Notice, advising Respondent that it had installed two onsite sewage disposal systems without prior authorization or permit from DEQ and that it had installed three showers without submission of plans and specifications to DEQ in violation of its Permit (FOF 4.)

On April 28, 2006, the Department issued Respondent a Notice and Order, alleging three violations: (1) installing an onsite sewage disposal system without a permit from the Department; (2) installing a second onsite sewage disposal system without a permit from the Department; and (3) violating Schedule D, Special Condition 3 of its WPCF permit by installing three showers, thus modifying a wastewater control facility without first obtaining the Department's written approval.

On June 7, 2006, DEQ conducted a site evaluation of the unpermitted sewage systems installed by the former employee. The DEQ inspector concluded that the systems were too small to handle the maximum daily sewage flow; they contained no alarms for when the tanks holding sewage approach capacity; the tanks were too close to the property line or water; the drainfield was too small; and the sprinkler system over the drainfield had the potential of contaminating groundwater (FOF 6.)

A contested case hearing was held on October 17, 2006, and on November 20, 2006, the ALJ issued an Amended Proposed Order. In his Conclusions of Law, the ALJ concluded, among other things, that:

1. Respondent installed two onsite sewage systems without first obtaining a repair permit from DEQ, but that the two installations constituted only one violation.
2. Respondent modified a wastewater control facility without authorization in violation of its WPCF permit when it installed the three new showers, but Respondent did not act negligently in doing so. Rather, Respondent's

error was not unreasonable in light of an apparent conflict between subsections 1 and 2 of Schedule F, Section D of the WPCF permit.

3. The appropriate penalty for the violations is $2,031 ($1,531 for alleged violations 1 and 2, which the ALJ treated as one violation, and $500 for alleged violation 3).

Issues On Appeal:

In its Exceptions and Brief (Attachment A), the Department raises three issues:

1. Whether Respondent's installation of two onsite sewage disposal systems without a repair permit constitutes two violations as alleged in the Notice and Order (Violations 1 and 2);
2. Whether Respondent is liable for a penalty for Violation 2 as alleged in the Notice and Order; and
3. Whether Respondent acted negligently when it modified its wastewater control facility without first obtaining written approval as alleged in the Notice and Order (Violation 3).

Respondent did not submit an Answering Brief in response to the Department's Exceptions and Brief.

Summary of Exceptions

Department's First Exception

The Department takes exception to the ALJ's conclusion that Respondent committed only one violation when it installed two separate onsite sewage disposal systems because the Department later issued only one permit for both systems. The Department's argument is based on the plain language of the applicable rule, OAR 340-071-0130(15), which reads:

> A person may not cause or allow construction, alteration, or repair of ***a system*** or any part thereof without a WPCF permit issued under OAR 340-071-0162 or a construction-installation, alteration, or repair permit under OAR 340-071-0160, 340-071-0210, and 340-071-0215 except for emergency repairs authorized under OAR 340-071-0215(1) and (2). (Emphasis added.)

The Department believes that, by specifying that the prohibited conduct is work on "a system," the rule plainly and unambiguously makes installation of each system a separate violation. Because the rule is plain and unambiguous, the Department argues that the ALJ erred in engaging in further analysis.

The Department asks that the Commission reverse the ALJ's conclusion that

alleged Violation 1 and alleged Violation 2 constitute only one violation and conclude as a matter of law that the two installations constituted two separate violations as alleged in the Department's Notice and Order.

Department's Second Exception

For the reasons stated in the Department's first exception, the Department takes a second exception to the ALJ's dismissal of the penalty for Violation 2. Based on the ALJ's Finding of Fact No. 2 that Respondent installed two systems without a permit, the Department asks that the Commission reinstate the penalty for Violation 2 as alleged in the Notice and Order, except that the penalty should be reduced from $1,750 to $1,500 to recognize that Respondent did actually correct the violation.

If for any reason the Commission elects not to impose a separate $1,500 civil penalty for alleged Violation 2 based on the conclusions already in the Amended Proposed Order, the Department requests that the Commission remand the matter for further hearing on the appropriate civil penalty for alleged Violation 2.

Department's Third Exception

The Notice and Order alleged that Respondent committed Violation 3 when Respondent modified its wastewater control facility without the Department's written approval as required by **Schedule D, Special Condition 3** of its WPCF Permit. The ALJ found that Respondent committed violation 3. But when evaluating the civil penalty for this violation, specifically the M factor (Respondent's mental state during the violation), the ALJ evaluated **Schedule F, Section D** of the Permit, which relates to reporting requirements. Schedule F is irrelevant to Respondent's mental state when it violated Schedule D.

In its Exceptions and Brief, the Department argues that the Amended Proposed Order already contains sufficient findings of fact to support a conclusion by the Commission that Respondent acted negligently and with constructive knowledge when Respondent violated Permit Schedule D, Special Condition 3.

The Amended Proposed Order contains the following findings relevant to alleged violation 3:

1. Respondent held a WPCF permit (FOF 5);
2. Respondent's employee modified the wastewater control facility regulated by the Permit by installing three showers (FOF 3);

3. Respondent's employee did not seek authorization from the Department before installing the showers (FOF 3); and
4. Respondent was aware that its wastewater control facility was regulated, as Respondent testified that its employee promised his supervisors that he would properly and legally install the two onsite sewage disposal systems (FOF 2).

Holding a permit is presumed to constitute at least constructive knowledge that the conduct would be a violation. OAR 340-012-0145(5)(a)(B); Notice and Order (Exhibit 3). The Department argues that the Findings of Fact made by the ALJ support imposition of the penalty consistent with its Notice and Order (i.e. imposition of a penalty based on an M factor of 2) because Respondent acted negligently and with constructive knowledge.[1]

The Department asks that the Commission assess a penalty of $625 for Violation 3 consistent with the Notice and Order. If the Commission elects for any reason not to impose a $625 civil penalty for alleged Violation 3 based on the Findings of Fact already stated in the Amended Proposed Order, the Department requests that the Commission remand the matter for further hearing on the appropriate civil penalty for alleged Violation 3.

EQC Authority

The Commission has the authority to hear this appeal under OAR 340-011-0575.

The Department's contested case hearings must be conducted by an ALJ.[2] The proposed order was issued under current statutes and rules governing the ALJ Panel.[3]

Under ORS 183.600 to 183.690, the Commission's authority to change or reverse an ALJ's Proposed Order is limited.

The most important limitations are as follows:

(1) The Commission may not modify the form of the ALJ's Proposed Order in any substantial manner without identifying and explaining the

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[1] As noted above, DEQ and Respondent stipulated that the C factor (cooperativeness) should be -2. Thus, although the Notice and Order seeks a penalty of $875 for alleged Violation 3, a penalty calculation based on an M factor of 2 yields a penalty of $625 for alleged Violation 3.
[2] ORS 183.635.
[3] ORS 183.600 to 183.690 and OAR 137-003-0501 to 137-003-0700.

modifications.[4]

(2) The Commission may not modify a recommended finding of historical fact unless it finds that the recommended finding is not supported by a preponderance of the evidence.[5] Accordingly, the Commission may not modify any historical fact unless it has reviewed the entire record or at least all portions of the record that are relevant to the finding.

(3) The Commission may not consider any new or additional evidence, but may only remand the matter to the ALJ to take the evidence.[6]

The rules implementing these statutes also have more specific provisions addressing how Commissioners must declare and address any *ex parte* communications and potential or actual conflicts of interest.[7]

In addition, the Commission has established by rule a number of other procedural provisions, including:

(1) The Commission will not consider matters not raised before the ALJ unless it is necessary to prevent a manifest injustice. [8]

(2) The Commission will not remand a matter to the ALJ to consider new or additional facts unless the proponent of the new evidence has properly filed a written motion explaining why evidence was not presented to the hearing officer.[9]

Alternatives The Commission may:

1. As requested by the Department, issue a Final Order modifying the Conclusions of Law in the ALJ's Amended Proposed Order by:
   - Concluding that the installation of the two separate systems constitutes two separate violations, each subject to a separate penalty, and finding that the penalty for Violation 2 should be $1,500; and
   - Concluding that Respondent acted negligently in causing Violation 3 and finding that the penalty for Violation 3 should be $625 consistent

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[4] ORS 183.650(2).
[5] ORS 183.650(3). A historical fact is a determination that an event did or did not occur or that a circumstance or status did or did not exist either before or at the time of the hearing.
[6] OAR 137-003-0655(5).
[7] OAR 137-003-0655(7), referring to ORS Chapter 244; OAR 137-003-0660.
[8] OAR 340-011-0132(3)(a).
[9] *Id.* at (4).

with the Notice and Order.

2. Adopt only part of the alternative above or no part of the alternative above and remand the matter with direction to the ALJ for further hearing on any issues for which the Commission requires additional evidence be collected.
3. Adopt the ALJ's decision.

Attachments

A. The Department's Exceptions and Brief, dated February 23, 2007.
B. Letter from Lynne Perry to Helen Lottridge, dated January 25, 2007.
C. Letter from Bryan Smith to Helen Lottridge, dated January 17, 2007.
D. Department's Petition for Commission Review, dated December 15, 2006.
E. Letter from Honorable Judge Smith to Bryan Smith, dated December 5, 2006.
F. Letter from Bryan Smith to Honorable Judge Smith, dated November 24, 2006.
G. Amended Proposed Order, dated November 20, 2006.
H. Proposed Order, dated November 16, 2006.
I. Notice of Hearing and Contested Case Rights, dated August 10, 2006.
J. Respondent's Answer and Request for Hearing, dated May 12, 2006.
K. Notice of Violation, Department Order, and Assessment of Civil Penalty, dated April 28, 2006.
L. Exhibits from Hearing of October 17, 2006.
   - A1. Water Quality Source Inspection Form, dated October 11, 2005.
   - A2. Photos and notes of RV spaces, dated October 11, 2005. (8 pages)
   - A3. Photos and notes of RV spaces, dated October 11, 2005. (2 pages)
   - A4. Letter from Respondent dated October 20, 2005.
   - A5. Pre-Enforcement Notice from DEQ, dated October 19, 2005.
   - A6. DEQ Investigation details, dated September 2005.
   - A7. BEN (Economic Benefit) calculation, dated March 29, 2006.
   - A8. Photo and notes of showers, dated October 11, 2005.
   - A9. Water Pollution Control Facilities (WPCF) Permit, dated September 11, 2002.
   - A10. Respondent's letter to DEQ, dated November 7, 2005.
   - A11. Site Evaluation Report, dated June 27, 2006.
   - R1. Troy Lodge Expenses by Respondent, dated March 31, 2005.
   - R2. Complaint in Union County Court, dated November 15, 2005.

Approved:

Dick Pedersen, Deputy Director

Jane Hickman, Administrator

Report Prepared by:
Bryan Smith

Environmental Law Specialist
Phone: (541) 388-6146/245

HARDY MYERS
Attorney General

PETER D. SHEPHERD
Deputy Attorney General

DEPARTMENT OF JUSTICE
GENERAL COUNSEL DIVISION

February 23, 2007

By Hand Delivery and First-Class Mail

Helen Lottridge
Secretary to Environmental Quality Commission
Oregon Department of Environmental Quality
811 SW Sixth Avenue
Portland, OR 97204

Re: Exceptions and Brief of the Department of Environmental Quality,
OAH Case No. 129617, DEQ WQ/D-ER-06-054

Dear Ms. Lottridge:

Enclosed for filing is the original EXCEPTIONS AND BRIEF OF THE DEPARTMENT OF ENVIRONMENTAL QUALITY in the above-referenced matter.

Respectfully Submitted,

Lynne Perry
Assistant Attorney General
Natural Resources Section

LAP:lal/GENT0070.DOC

Enclosure

cc: Bryan Smith, DEQ
Philip Harris, Shilo Management Corp.

009

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION

OF THE STATE OF OREGON

IN THE MATTER OF: SHILO MANAGEMENT CORPORATION, an Oregon corporation, RESPONDENT.	EXCEPTIONS AND BRIEF OF THE DEPARTMENT OF ENVIRONMENTAL QUALITY Agency Case No. WQ/D-ER-06-054 OAH Case No. 129617

The Department of Environmental Quality (Department) submits its Exceptions and Brief in support of the Department's appeal of the Amended Proposed Order (Order) issued in this matter on November 20, 2006.

I. BACKGROUND

In 2004, Respondent had two onsite sewage systems installed at its property in Troy, Oregon. One system was installed to serve seven RV spaces along the Wenaha River. The other system was installed to serve 13 RV spaces along the Grande Ronde River. (Order, Finding No. 2 at p. 3.) Respondent does not dispute that these were separate, unconnected systems or that Respondent failed to obtain a permit before installing either of the two systems. (Order at p. 5.) Later in 2004, Respondent also installed new showers at its property for use by RV owners. Respondent did not obtain DEQ approval before doing so. (Order, Finding No. 3 at p. 2.)

On April 28, 2006, the Department issued Respondent a Notice of Violation, Department Order and Assessment of Civil Penalty (Notice and Order) that alleged three violations related to these activities:

Violation 1: Respondent caused or allowed the construction, alteration or repair of an onsite sewage disposal system without first obtaining an onsite sewage construction permit from the Department. Violation 1 was alleged to have occurred when Respondent installed the onsite sewage system to serve seven RV spaces. DEQ assessed a civil penalty of $2,456 for this violation.

Violation 2: Respondent caused or allowed the construction, alteration or repair of a second onsite sewage disposal system without first obtaining an onsite sewage construction

permit from the Department. Violation 2 was alleged to have occurred when Respondent installed the onsite sewage system to serve 13 RV spaces. DEQ assessed a civil penalty of $1,750 for this violation.

Violation 3: Respondent violated a condition of its Water Pollution Control Facilities (WPCF) permit by modifying its wastewater control facility without first obtaining the Department's written approval. Violation 3 was alleged to have occurred when Respondent installed new showers without obtaining DEQ approval to do so. DEQ assessed a civil penalty of $875 for this violation.

In the Amended Proposed Order, the Administrative Law Judge (ALJ) concluded that Respondent's installation of the two onsite sewage systems constituted only one violation. He determined that Respondent committed Violation 1 by causing or allowing the construction, alteration or repair of the onsite sewage disposal systems without first obtaining an onsite sewage construction permit from the Department, but that alleged Violation 2 did not constitute a separate violation. (Order at 6-7.) The ALJ then assessed a civil penalty of $1,531 for the one violation. (Order at 10.)

The ALJ also concluded that Respondent committed Violation 3 by modifying its wastewater control facility without Department approval. In doing so, the ALJ concluded that Respondent's failure to obtain Department approval before doing this work was not negligent as alleged by the Department in its Notice and Order. The ALJ then assessed a civil penalty of $500 for Violation 3. (Order at 10-11.)[1]

II. COMMISSION ACTION REQUESTED

The Department requests that the Environmental Quality Commission (Commission): (1) reverse the ALJ's conclusion of law that alleged Violation 1 and alleged Violation 2 constitute only one violation; (2) reverse the ALJ's conclusion of law that alleged Violation 3 was not negligent; and (3) issue a Final Order consistent with these conclusions, including assessment of a separate civil

[1] Please note: The violation described by the ALJ as "Violation Two, Modifying WPCF Without Prior Approval" in the Amended Proposed Order (at 10) is the violation alleged as Violation 3 in the Department's Notice and Order. To avoid confusion, the violations are described herein as "alleged" Violations 1, 2 and 3 consistent with the numbering used by the Department in its Notice and Order.

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penalty for alleged Violation 2 and an enhanced penalty for alleged Violation 3 that reflects Respondent's negligence, as more fully described below.

III. ARGUMENT

1. The ALJ erred in concluding that Respondent's installation of two distinct onsite sewage disposal systems constituted only one violation.

The fact that Respondent installed two separate and unconnected onsite systems on its property is undisputed. That fact alone is sufficient to support the Department's finding that Respondent committed two separate violations of OAR 340-071-0130(15), as alleged by the Department in its Notice and Order. (Exhibit P1.)

OAR 340-071-0130(15) provides in relevant part:

> A person may not cause or allow construction, alteration, or repair of ***a system*** or any part thereof without a WPCF permit issued under OAR 340-071-0162 or a construction-installation, alteration, or repair permit under OAR 340-071-0160, 340-071-0210, and 340-071-0215 except for emergency repairs authorized under OAR 340-071-0215(1) and (2). (Emphasis added.)

As the ALJ correctly notes in the Amended Proposed Order, the applicable analysis for interpreting a rule was set out by the Oregon Supreme Court in *PGE v. Bureau of Labor and Industries* (*BOLI*), 317 Or 606 (1993), and *Abu-Adas v. Employment Dept.,* 325 Or 480 (1997). The first step is to examine the text and context of the pertinent rule or statute, giving words of common usage their plain, natural and ordinary meaning. (Order at 6.) As the Supreme Court explained in *Abu-Adas*:

> Our inquiry begins with an examination of the text of the rule itself. Also at this first level of analysis, the court considers the context of the rule. Context includes other provisions of the same rule, other related rules, the statute pursuant to which the rule was created, and other related statutes. ***If the enacting body's intent is clear after that inquiry, the court does not proceed further.*** *Abu-Adas,* 325 Or at 485 (citations omitted; emphasis added).

In short, if the plain language of a rule when read in context (*i.e.*, in light of related rules and relevant statutory authority) fully resolves the issue, the ALJ need not—and should not—proceed further.

Here, the relevant rule plainly and unambiguously states that a violation occurs when "*a system*" is constructed, altered, or repaired without a permit. Thus, when Respondent installed the

system serving the RV spaces on the Grande Ronde River, it violated OAR 340-071-0130(15). And, when Respondent installed the second, separate system serving the RV spaces on the Wenaha River, it again violated OAR 340-071-0130(15). The ALJ's analysis should have stopped right there. 325 Or at 485.[2]

The ALJ nevertheless concludes that the two installations constitute only one violation, based on his assumption that the Department would issue only one permit, no matter how many systems were installed at the same time. (*See* Order at 6.)[3] That assumption is not only wrong; it is not supported by any evidence in the record.

More importantly, the number of permits that might or might not be issued after the fact is wholly irrelevant to the interpretation of OAR 340-071-0130(15) and the number of violations committed. For that reason, the Department asks that the Commission reverse the ALJ's conclusion that alleged Violation 1 and alleged Violation 2 constitute only one violation and conclude as a matter of law that the two installations constituted two separate violations as alleged in the Department's Notice and Order.

2. The ALJ erred by not assessing a civil penalty for Violation 2.

The Notice and Order alleged two separate violations of OAR 340-071-0130(15), and assessed separate penalties for each of those violations according to the penalty calculation rules in OAR Chapter 340, Division 012. (*See*, Notice and Order Section V and Exhibits 1 and 2.) The ALJ made findings of fact that support a conclusion that both violations occurred, but ultimately concluded that the installations constituted only one violation, assessed only one penalty for alleged Violations 1 and 2, and dismissed the penalty for alleged Violation 2.

As described above, the ALJ erred in concluding that there was only one violation. As a consequence, he also erred in concluding that Respondent was not liable for a penalty for alleged

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[2] Although there is some discussion in the Amended Proposed Order regarding the degree of deference to be accorded the Department's interpretation of the rule, this is also not an issue. Deference presumes two or more plausible interpretations. As a legal matter, there is only one plausible interpretation here.

[3] "A technical reading of the rule could perhaps result in a conclusion that, because two systems were installed, there were two violations, but that would mean that Respondent was required to obtain two permits, which it was not." (Order at 6.)

Violation 2. The Department therefore asks that the Commission reinstate the penalty for alleged Violation 2, with the following exception: the Department and the Respondent stipulated that the Respondent cooperated in correcting the violation. (Order at 9.) This changes the penalty calculation from that in the Notice and Order, and reduces the penalty from $1,750 to $1,500.

If for any reason the Commission elects not to impose a separate $1,500 civil penalty for alleged Violation 2 based on the conclusions already in the Amended Proposed Order, the Department requests that the Commission remand the matter for further hearing on the appropriate civil penalty for alleged Violation 2.

3. The ALJ erred in concluding that Violation 3 (WPCF Violation) was not negligent.

In its Notice and Order, the Department alleged that Respondent committed Violation 3 when it modified its wastewater control facility without the Department's written approval as required by Schedule D, Special Condition 3 of its WPCF Permit. However, when evaluating whether Respondent acted negligently when it committed Violation 3, the ALJ erroneously and inexplicably applied Schedule F, Section D of the Permit, which relates to reporting requirements, not modification of a facility.

The ALJ's analysis of Schedule F, Section D is clearly irrelevant to a determination of Respondent's mental state when it violated Schedule D, Special Condition 3. For that reason, this portion of the Amended Proposed Order (on pp. 7-8) should not be considered by the Commission.

Nonetheless, the Commission can still find that Respondent acted negligently when it violated Permit Schedule D, Special Condition 3 based on findings of fact already in the Order. Specifically:

(1) Respondent held a WPCF permit. (Finding of Fact No. 5.)

(2) Respondent's employee modified the wastewater control facility regulated by the Permit by installing three showers. (Finding of Fact No. 3.)

(3) Respondent's employee did not seek authorization from the Department before installing the showers. (Finding of Fact No. 3.)

(4) Respondent was aware that its wastewater control facility was regulated, as Respondent testified that its employee promised his supervisors that he would

properly and legally install the two onsite sewage disposal systems. (Finding of Fact No. 2.)

It is evident from these Findings of Fact that Respondent had both constructive and actual knowledge that modification of its wastewater control facilities had to comply with its WPCF permit, which required written approval before the wastewater control facility was modified. When Respondent modified its wastewater control facility without first obtaining written approval, Respondent failed to take reasonable care to avoid causing the violation, and was therefore "negligent" as defined at OAR 340-012-0030(12).

For that reason, the Department requests that the Commission find that the Respondent acted negligently as alleged and assess a penalty of $625 for Violation 3 consistent with the Notice and Order (*See* Notice and Order Exhibit 3.) If the Commission elects for any reason not to impose a $625 civil penalty for alleged Violation 3 based on the findings of fact already in the Amended Proposed Order, the Department requests that the Commission remand the matter for further hearing on the appropriate civil penalty for alleged Violation 3.

V. CONCLUSION

For the reasons described herein, the Department requests that the Commission issue a Final Order modifying the Conclusions of Law in the ALJ's Amended Proposed Order as requested by the Department and assessing Respondent a total civil penalty of $3,656.

2/23/07
Date

Lynne Perry
Lynne Perry OSB # 90456
Assistant Attorney General
Of Attorneys for the Department of Environmental Quality

2/23/07
Date

s/s Lynne Perry for
Bryan Smith
Environmental Law Specialist
Department of Environmental Quality

CERTIFICATE OF FILING

I hereby certify that on February 23, 2007, I filed the original of this EXCEPTIONS AND BRIEF OF THE DEPARTMENT OF ENVIRONMENTAL QUALITY with the Environmental Quality Commission, 811 SW Sixth Avenue, Portland, OR 97204, by hand delivery and first-class mail.

DATED this 23rd day of February 2007.

Lynne Perry, #90456
Assistant Attorney General
Of Attorneys for DEQ

CERTIFICATE OF SERVICE

I certify that on February 23, 2007, I served a true and correct copy of this EXCEPTIONS AND BRIEF OF THE DEPARTMENT OF ENVIRONMENTAL QUALITY on the following by first-class mail:

Shilo Management Corporation
11600 SW Shilo Lane
Portland, OR 97225

Philip S. Harris
Attorney at Law
Shilo Management Corporation
11600 SW Shilo Lane
Portland, OR 97225

DATED this 23rd day of February 2007.

Lynne Perry, #90456
Assistant Attorney General
Of Attorneys for DEQ

Department of Justice
1515 SW 5th Ave, Suite 410
Portland, OR 97201
(971) 673-1880

HARDY MYERS
Attorney General

PETER D. SHEPHERD
Deputy Attorney General

DEPARTMENT OF JUSTICE
GENERAL COUNSEL DIVISION

January 25, 2007

By E-Mail and First-Class Mail

Helen Lottridge
Secretary to Environmental Quality Commission
Oregon Department of Environmental Quality
811 SW Sixth Avenue
Portland, OR 97204

Re: Amended Proposed Order Assessing Civil Penalty, OAH Case No. 129617
DEQ WQ/D-ER-06-054

Dear Ms. Lottridge:

I am writing on behalf of DEQ to request a three-week extension for the filing of DEQ's Exceptions and Brief in the above-referenced matter. I will be working with Bryan Smith on this matter. The requested extension will allow us to coordinate our efforts in preparing DEQ's Brief. DEQ's Brief is now due to be filed on February 2, 2007. We therefore request an extension to February 23, 2007.

Thank you for your consideration of this request.

Sincerely,

Lynne Perry
Assistant Attorney General
Natural Resources Section

LAP:lal/GENS6745.DOC

cc: Bryan Smith, DEQ
Philip Harris, Shilo Management Corp.

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Oregon
Theodore R. Kulongoski, Governor

Department of Environmental Quality
811 SW Sixth Avenue
Portland, OR 97204-1390
503-229-5696
TTY: 503-229-6993

January 17, 2006

Helen Lottridge
Assistant to the Environmental Quality Commission
Department of Environmental Quality
811 SW 6th Avenue
Portland, Oregon 97204

Dear Ms. Lottridge:

Re: Hearing in the Matter of:
Shilo Management Corporation
DEQ Case No. WQ/D-ER-06-054
OAH Case No. 129617

The Department's Exceptions and Brief in this case, currently due January 19, 2007, will require assistance from the Department of Justice (DOJ) because this matter involves the application and interpretation of case law that I am unable to provide as a "lay representative" for the Department.

Because an attorney from the DOJ has not yet been assigned this case, I also do not know how much time the DOJ attorney will have available to work on this matter, or when.

For this reason, I request an extension of two weeks from the January 19 deadline (5 P.M. on February 2), and I would also like to leave open the possibility for an additional extension if the DOJ attorney ultimately will so require.

Thank you for your consideration of this request.

Sincerely,

Deborah Nesbit
for

Bryan Smith
Environmental Law Specialist
Office of Compliance and Enforcement

cc: John P. Kneeland, Registered Agent, Shilo Management Corporation, 11600 S.W. Shilo Lane, Portland, OR 97225
Steve R. Tegger, Office of Administrative Hearings, Dept. Employment, Salem
Thomas E. Ewing, Office of Administrative Hearings, Dept. Employment, Salem

Oregon
Theodore R. Kulongoski, Governor

Department of Environmental Quality
811 SW Sixth Avenue
Portland, OR 97204-1390
503-229-5696
TTY: 503-229-6993

December 15, 2006

Environmental Quality Commission
c/o Stephanie Hallock, Director, DEQ
811 SW Sixth Avenue
Portland, OR 97204

Re: Petition for Commission Review of Proposed Order
In the Matter of:
Shilo Management Corporation
Agency Case No. WQ/D-ER-06-054
Hearing Officer Panel Case No. 129617

Dear Ms. Hallock:

Please find enclosed for filing the Department's Petition for Commission Review of Proposed Order in the above-referenced matter.

Sincerely,

Bryan Smith
Environmental Law Specialist
Office of Compliance and Enforcement

LAC:dkn

Enclosure
Cc(w/encl): Shilo Management Corporation

(GC.7 01/02)

CERTIFICATE OF SERVICE

I certify that on November 15, 2006, I filed the foregoing Petition of Commission Review, by personal service, with:

Environmental Quality Commission
c/o Stephanie Hallock, Director, DEQ
811 SW Sixth Avenue
Portland, OR 97204

I certify that on November 15, 2006, I served the foregoing Petition of Commission Review by mailing first class mail, in a sealed envelope, with first class postage prepaid, a copy thereof addressed as follows:

Shilo Management Corporation
11600 SW Shilo Lane
Portland, OR 97225

and

Philip S Harris
Attorney At Law
Shilo Management Corp
11600 SW Shilo Ln
Portland, OR 97225

Deborah Nesbit
Administrative Assistant
Office of Compliance and Enforcement
Department of Environmental Quality

Oregon
Theodore R. Kulongoski, Governor

OFFICE OF ADMINISTRATIVE HEARINGS
Transportation Hearings Division
1905 Lana Avenue NE
Salem, OR 97314
Telephone: (503) 945-5547
FAX: (503) 945-7070
TTY: 1-800-735-1232

December 5, 2006

Bryan Smith
Environmental Law Specialist
Department of Environmental Quality
811 SW Sixth Avenue
Portland, OR 97204-1390

Re: Shilo Management Corporation
No. WQ/D-ER-06-054
OAH Case No. 129617

Dear Mr. Smith,

On November 24, 2006, DEQ filed a request for the ALJ to withdraw the Amended Proposed Order issued on November 20, 2006, and issue a "corrected" proposed order. The request was made pursuant to OAR 137-003-0655(1).

Under the rule, an ALJ may withdraw a proposed order for correction within three working days of issuance of the proposed order. That time had already expired when the request was made on November 24. The remainder of the rule allows, but does not require, an ALJ to issue an amended proposed order at the request of the agency. The ALJ is required to issue an amended proposed order only when the agency requests a further hearing, which was not requested in this case. The ALJ has reviewed the staff comments and declines to issue a Second Amended Proposed Order, but the ALJ will respond to the comments as follows.

DEQ requests that the ALJ clarify the factual bases for concluding that the systems were installed at the same time. The record establishes that one man worked on the installation of the two systems, but the record is not clear whether this man worked on the two systems "at the same time" or installed them consecutively. DEQ has the burden of proof on the issues of fact and the record does not preponderate in a finding one way or the other that the two systems were or were not installed "at the same time." The ALJ found that: "The installation of the two systems involved considerable work and took more than one day."

The basis for the civil penalty is the failure to obtain one, not two, permits. In its Pre-Enforcement Notice issued on October 15, 2006, DEQ advised Respondent that it permitted installation of on-site sewer systems (plural) without prior authorization or permit (singular) from DEQ. The rule requires a permit for "construction, alteration, or repair of a system or any part thereof." It is a reasonable inference to be drawn from all the evidence that the two systems were installed as part of the same construction, and therefore only required one permit. *City of Roseburg v. Roseburg City Firefighters*, 292 Or 266 (1981). This appears to be the same conclusion that DEQ reached after its inspection on October 12, 2006, leading to the Pre-Enforcement Notice of a violation based on a failure to obtain a single permit. It is also consistent with DEQ's decision to require only one permit for Respondent to replace the two systems.

This case is not about interpreting the rule to require two permits. It is possible for the agency to make a *plausible* interpretation of the rule to require two permits under the circumstances of this case. But the agency did not make that choice when making an inspection and issuing its Pre-Enforcement Notice. The agency chose to require Respondent to obtain a single permit in order to be in compliance and gave notice to that effect. The agency cannot now base a civil penalty on a failure to obtain two permits when it did not give notice that two permits were required under the rule.

While the issue of deference to rule interpretation is not directly at issue, the ALJ functions in a quasi-judicial role under the APA in a contested case hearing. This means that an ALJ exercises generally the same degree of authority as judges under Article III of the Oregon Constitution, but the scope of the issues is defined by statute rather than common law and equity. An ALJ has authority to declare a rule invalid as adopted or as applied, and also to determine that an agency order violates the constitution. *Li v. State of Oregon*, 338 Or 376 (2005); *Don't Waste Oregon Com. v. Energy Facility Siting*, 320 Or 132 (1994); *Planned Parenthood Assn. v. Dept. of Human Res.*, 297 Or 562 (1984). The appellate courts have not distinguished the role of an ALJ from that of the Article III judges with respect to rule interpretation. The same standard applies in contested case hearings as judicial proceedings in the courts.

In that context, the appellate courts have twice refused to give deference when the agency interpreting the rule is not the body that created it. In *Oregon Occup. Saf. & Health v. Don Whitaker Logging, 329 Or. 256* (1999), at footnote 7, the court stated:

> [fn7] This is not a case in which we apply the deferential standard of *Clark v. Jackson County*, 313 Or. 508, 836 P.2d 710 (1992), to OR-OSHA's interpretation of the rule. We apply the deferential standard only when the body interpreting the rule also is the body that promulgated it. Here, the rule was promulgated by the Director of the Department of Business Services, not by OR-OSHA. We, therefore, assess the correctness of OR-OSHA's interpretation without according any deference to OR-OSHA's proposed interpretation. See *Dunning v. Corrections Facility Siting Authority*, 325 Or. 269, 277 n 4, 935 P.2d 1209 (1997) (declining to defer to agency's interpretation of rule).

And again, in *Cty. Of Morrow v. Dept. Of Fish And Wildlife*, 178 Or. App. 329 (2001) at footnote 1, the court declared:

> [fn1] When an administrative agency interprets its own administrative rule, our review is more deferential. Under *Don't Waste Oregon Com. v. Energy Facility Siting*, 320 Or. 132, 142, 881 P.2d 119 (1994), when an agency interprets its own rule, we will defer to that interpretation if it is "plausible," that is, if it "cannot be shown either to be inconsistent with the wording of the rule itself, or with the rule's context, or with any other source of law." In this case, it is not entirely clear whose rule is at issue and who is interpreting it. The rule was adopted by the commission, but the department filed the certificate and order. See ORS 496.090 (establishing the Fish and Wildlife Commission); ORS 496.080 (establishing the Department of Fish and Wildlife under the commission). Likewise, the rule requiring the commission to consult with certain affected entities and persons is listed as having been adopted by the department. At all events, even under the less deferential standard that we have described in the text, the commission prevails. So it is not necessary for us to determine whether *Don't Waste Oregon Com.* applies.

Finally, the conclusion that Respondent was required to have only one permit is not "tautological." It is driven by the agency's notice to Respondent that did not inform Respondent that he needed two permits instead of one. It may be a reasonable, plausible interpretation of the rule to require two permits, but the agency did not apply the rule that way in this case. Unless the agency wants to amend its notice and start the proceeding over again, it is too late to seek two civil penalties on the basis that two permits were required when the agency gave notice that only one permit was required.

Sincerely,

Lawrence S. Smith
Administrative Law Judge

cc: Shilo Management Corporation, John P. Kneeland, Registered Agent, 600 S.W. Shilo Lane, Portland, OR 97225

Steve Tegger, Office of Administrative Hearings

Oregon
Theodore R. Kulongoski, Governor

Department of Environmental Quality
811 SW Sixth Avenue
Portland, OR 97204-1390
503-229-5696
TTY: 503-229-6993

November 24, 2006

Lawrence S. Smith
Administrative Law Judge
Office of Administrative Hearings
1905 Lana Avenue
Salem, OR 97314

Re: Shilo Management Corporation
Notice of Violation, Department Order and Assessment of Civil Penalty
No. WQ/D-ER-06-054
OAH Case No. 129617
Wallowa County

Dear Judge Smith:

The Department requests, pursuant to Oregon Administrative Rules (OARs) 137-003-0645(f and g) and 137-003-0655(1), that you withdraw the Amended Proposed Order you issued on November 20, 2006, and issue a corrected proposed order. The Department is making this request because the issued Amended Proposed Order does not include Findings as to each issue of fact and as to each ultimate fact required to support the proposed order, and also because there is an insufficient explanation of the reasoning that leads from the findings of fact to the legal conclusion(s). In particular, the Department requests that you clarify the following.

1. The Amended Proposed Order appears to base some conclusions on a finding that the two systems were installed at the same time. The Amended Proposed Order made no finding of fact that the systems were installed at the same time and the Department is unaware of any evidence in the record on which that finding could be based. The Department requests that you clarify the factual bases for concluding that the systems were installed at the same time.

2. The Amended Proposed Order concludes that the installation of the two systems was a single violation based on statements from Department staff that the Department would have allowed the Respondent to modify the existing permit to include the conditions and standards for both installations. The Amended Proposed Order uses the possibility of a single permit to conclude that there was only one violation. The Amended Proposed Order does not explain why two violations of a single permit must be only one violation other than the tautological reasoning that there would be only one permit so there can only be one violation. The Department asks that the Amended Proposed Order be modified to clarify the legal basis for concluding that whether a person has one violation or multiple violations should be based on the location of the legal requirement in one or more permits rather than on the multiple actions or inactions of the violator.

3. The Amended Proposed Order cites to two cases in its effort to dismiss deference to the Department but does not explain how those cases apply. In particular, *Don't Waste Oregon* does not appear applicable to the *Shilo* matter because it addresses the deference that a court must give in a judicial proceeding, not whether an administrative law judge must give deference in an administrative proceeding. While the Amended Proposed Order also concludes that the case does not apply in the *Shilo* matter (because DEQ is interpreting an EQC rule rather than its own DEQ rule), the Amended Proposed Order then uses that inapplicability to conclude that the Department is not entitled to deference. The Department believes that when a case does not apply, it should not be used as justification for a conclusion. The Department asks that you either strike that application or explain why it is justified. Because there is no other legal authority for denying deference to the Department's interpretation, the Department asks that the Amended Proposed Order explain why the EQC rule that requires deference would not apply. That rule, OAR 340-011-0545(3), specifies:

> *In reviewing the department's interpretation of a department rule as applied in a formal enforcement action, an administrative law judge must follow the department's interpretation if that interpretation is both plausible and reasonably consistent with the wording of the rule and the underlying statutes. The administrative law judge may state, on the record, an alternative interpretation for consideration on appeal.*

The Amended Proposed Order also relies on *Solosha* for the principle that there must be a rational relationship between the facts and the resulting legal conclusion. While there may or may not be reasons for a person to come to a different conclusion about whether two installations should constitute one or two violations, the Amended Proposed Order does not explain why the Department's position does not demonstrate a "rational relationship" between the facts and conclusion that there were two violations. Indeed, the Amended Proposed Order finds that "A technical reading of the rule could perhaps result in a conclusion that, because two systems were installed, there were two violations . . . ." While the Amended Proposed Order goes on to say, "but that would mean that Respondent was required to obtain two permits, which it was not" this conclusion is tautological as described above and still does not describe why the Department's interpretation is not rational.

Thank you for your consideration of this request.

Sincerely,

Bryan Smith

Bryan Smith
Environmental Law Specialist

cc: Shilo Management Corporation, John P. Kneeland, Registered Agent, 600 S.W. Shilo Lane, Portland, OR 97225
Steve R. Tegger, Office of Administrative Hearings, Dept. Employment, Salem
Thomas E. Ewing, Office of Administrative Hearings, Dept. Employment, Salem

BEFORE THE OFFICE OF ADMINISTRATIVE HEARINGS
STATE OF OREGON
for the
THE ENVIRONMENTAL QUALITY COMMISSION

In the Matter of:	)	**PROPOSED ORDER**
	)	**ASSESSING CIVIL**
	)	**PENALTY**
SHILO MANAGEMENT CORPORATION,	)	
Respondent	)	**WQ/D-ER-06-054**
	)	**WALLOWA COUNTY**
	)	**OAH Case No. 129617**

HISTORY OF THE CASE

On April 28, 2006, the Department of Environmental Quality for the State of Oregon (DEQ) issued a Notice of Violation, Department Order, and Assessment of Civil Penalty to Shilo Management Corporation (Respondent). The Notice alleged that Respondent installed sewage systems without first applying for a permit. Respondent filed a timely request for hearing. The matter was referred to the Office of Administrative Hearings (OAH) on July 31, 2006.

A hearing was held in Portland, Oregon on October 17, 2006, before Administrative Law Judge Lawrence S. Smith of the OAH. Respondent was represented by Philip S. Harris, vice president/assistant general counsel for Respondent. He and Timothy Cardwell, assistant general counsel for Respondent, testified. Environmental Law Specialist Bryan Smith represented DEQ and called two witnesses—Heidi Williams, water quality engineer for DEQ, and by telephone, Diane Naglee, natural resources specialist for DEQ. The record was closed at the end of the hearing.

ISSUES

1. Whether Respondent violated ORS 454.655(1) and OAR 340-071-0130(15)(a) by installing on-site sewage systems without first obtaining a permit from DEQ. If so, what were the number of violations?

2. Whether Respondent violated a condition of its Water Pollution Control Facilities (WPCF) permit and is liable for a penalty pursuant to ORS 468B.025(2).

3. If Respondent committed any of these violations, what is the appropriate penalty?

4. Whether DEQ's Department Order should be upheld. At hearing, DEQ reported that Respondent had met the requirements in the Department Order, so DEQ no longer sought the Order.

EVIDENTIARY RULING

Exhibits A1 through A11 offered by DEQ were admitted to the record without objection. Exhibits R1 and R2 offered by Respondent were admitted. DEQ's relevance objection to Exhibit R2 was overruled. At hearing, Official Notice was taken of P1 through P3: the Notice of Violation, the Respondent's Request for Hearing, and the Notice of Hearing.

FINDINGS OF FACT

1. Shilo Management Corporation (Respondent) owned the Shilo Inn (Inn), located at 84570 Bartlett Road, in Troy, Oregon, at the times relevant to this case. On the Inn's property are 13 spaces and hookups for recreational vehicles along the Grand Ronde River and seven spaces and hookups for recreational vehicles along the Wenaha River. (Test. of Williams.)

2. Sometime in 2004, one of Respondent's employees had two sewage systems installed to serve the recreational vehicle spaces. (Stipulation of DEQ and Respondent.) The installation of the two systems involved considerable work and took more than one day. (Test. of Naglee.) One system was to serve the 13 spaces along the Grande Ronde River and consisted of a 1,000 gallon dosing septic tank (stamped as manufactured in May 2004) and of a pressurized distribution system (drainfield). On top of the drainfield, the employee had a sprinkler system installed. The other system was to serve the seven spaces along the Wenaha River and consisted of a 1,000 gallon concrete manufactured septic tank (stamped as manufactured on June 11, 2004), which was a holding tank and not connected to a drainfield. (Ex. A11; test. of Naglee.) The employee promised his supervisors that he would properly and legally install the sewage systems. (Test. of Harris.) The employee did not obtain a permit from DEQ before installing the systems. (Stipulation of the parties.) The cost of such a permit and required fees from DEQ at that time were: $685 for site evaluation fee; $330 for plan review fee; $600 for permit modification fee; and $60 for filing fee. (Ex. A6 at 2.)

3. Later in 2004, the same employee had three new showers installed at the Inn for the owners of the recreational vehicles, so that they could avoid taking showers in their vehicles, which were smaller and more cramped. The installation took more than one day. The employee did not seek authorization from DEQ before doing so. The new showers did not result in an increase in gray or sewer water. (Test. of Harris; concession of DEQ.)

4. On January 20, 2005, Respondent discharged the employee for theft and other violations. (Test. of Harris.) On November 15, 2005, Respondent filed a Complaint against the employee in Union County Circuit Court for conversion, replevin, trespass to chattels, breach of contract, unjust enrichment, constructive trust, and timber trespass. (Ex. R2.) Respondent believes that the former employee filed a complaint against it with DEQ, which led to the DEQ inspection on October 12, 2005. (Test. of Harris and Cardwell.) After this inspection, DEQ issued a Pre-Enforcement Notice (PEN) to

Respondent on October 19, 2005, advising it that it permitted installation of on-site sewage systems without prior authorization or permit from DEQ and that it installed three showers without submission of plans and specifications to DEQ in violation of its Water Pollution Control Facilities (WPCF) permit. (Ex. A5.)

5. Respondent's WPCF permit was issued on September 11, 2002, and states in parts relevant to DEQ's alleged violation:

> **SECTION D. REPORTING REQUIREMENTS**
>
> 1. Plan Submittal
>
> Pursuant to Oregon Revised Statute 468B.055, unless specifically exempted by rule, no construction, installation or modification of disposal systems, treatment works, or sewerage systems shall be commenced until plans and specifications are submitted to and approved in writing by the [DEQ]. All construction, installation or modification shall be in strict conformance with the [DEQ's] written approval of the plans.
>
> 2. Change in Discharge
>
> Whenever a facility expansion, production increase, or process modification is anticipated which result in a change in the character of pollutants to be discharged or which will result in a new or increased discharge that will exceed the conditions of this permit, a new application must be submitted together with the necessary reports, plans, and specifications for the proposed changes. No change shall be made until plans have been approved and a new permit or permit modification has been issued.
>
> 3. Signatory Requirements
>
> All applications, reports or information submitted to the [DEQ] shall be signed and certified by the official applicant of record (owner) or authorized designee.

(Ex. A9 at 5 and 6, emphasis in original.)

6. On June 7, 2006, a Natural Resources Specialist (Specialist) for DEQ conducted a site evaluation of the unpermitted sewage systems installed by the former employee. The Specialist concluded that the systems were too small to handle the maximum daily sewage flow, they contained no alarms for when the tanks holding sewage approach capacity, the tanks were too close to the property line or water, the drainfield was too small, and the sprinkler system over the drainfield had the potential of contaminating ground water. These results were sent to Respondent in a Site Evaluation Report mailed on June 27, 2006. (Ex. A11.)

7. After Respondent received the PEN, it understood that it needed to replace the sewage systems installed by its former employee and started taking steps to do so, such as pumping out the sewage from the tanks. (Test. of Cardwell and Harris.) Respondent has completely replaced both systems, paying $15,822.74 for required fees and related costs, including employee time, architectural services, and sewer services to empty the tanks of the old systems. DEQ required Respondent to secure only one permit for the work. (Ex. R1; test. of Harris.) DEQ and Respondent stipulated that Respondent was very cooperative and that the cooperation factor in regards to any possible civil penalty is minus two (-2). (Stipulation of DEQ and Respondent.)

8. DEQ's alleged economic benefit (EB) was based on Respondent failing to obtain one permit for installing the sewage systems. (Exhibits 1 and 2 to Ex. P1.)

9. DEQ concedes that Respondent has satisfied the requirements in the Department Order issued with the Notice of Violation in this case and withdrew the Department Order on the record.

CONCLUSIONS OF LAW

1. Respondent installed on-site sewage systems without first obtaining a permit from DEQ, committing only one violation.

2. Respondent violated a condition of its WPCF and is liable for a penalty.

3. The appropriate penalty is $2,031 for the two violations.

4. DEQ's Department Order is withdrawn.

OPINION

As proponent of the facts and conclusions in its Notice of Violation, DEQ has the burden of proving those facts and conclusions. ORS 183.450(2) (The burden of presenting evidence to support a fact or position in a contested case rests on the proponent of the fact or position). The standard of proof is preponderance of evidence. *Cook v. Employment Div.*, 47 Or App 437 (1980) (In the absence of contrary legislation, the standard of proof in administrative hearings is preponderance of evidence).

DEQ alleged three violations and penalties associated with the violations, which are considered separately below.

1. Obtaining a permit

"[T]he Environmental Quality Commission shall adopt such rules as it considers necessary for the purpose of carrying out ORS 454.605 to 454.755." ORS 454.625.

OAR 340-071-0130 implements ORS 454.615[1] and 454.655(1)[2] and provides the general standards, prohibitions and requirements with regard to pollution of the waters of the state. Subsection (15) of the rule states:

> Permit requirements.
> (a) A person may not cause or allow construction, alteration, or repair of a system or any part thereof without a WPCF permit issued under OAR 340-071-0162 or a construction-installation, alteration, or repair permit under OAR 340-071-0160, 340-071-0210, and 340-071-0215 except for emergency repairs authorized under OAR 340-071-0215(1) and (2).

DEQ alleged in its Notice of Violation that Respondent allowed the construction of two on-site sewage disposal systems without first applying for and obtaining a permit from DEQ. Respondent did not dispute that its employee had two sewage disposal systems installed on the property without first obtaining a permit from DEQ. Respondent argued that it was required to obtain only one permit because both systems were installed on the same property at the same time. The conflict over the number of violations raises an issue of rule interpretation.

In *PGE v. Bureau of Labor and Industries (BOLI)*, 317 Or 606 (1993), the Court set out a scheme for statutory interpretation to determine the intent of the legislature. The first step in determining its intent is examination of the text and context of the statute, including other provisions of the same statute and related statutes and legal rules of

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[1] "The Environmental Quality Commission shall by September 1, 1975, adopt by rule standards which:

(1) Prescribe minimum requirements for the design and construction of subsurface sewage disposal systems, alternative sewage disposal systems and nonwater-carried sewage disposal facilities or parts thereof including grading, excavating and earth-moving work connected therewith, and allow for use of alternative systems and component materials consistent with the minimum requirements. Requirements prescribed under this section may vary in different areas or regions of the state.

(2) Prescribe minimum requirements for the operation and maintenance of subsurface sewage disposal systems, alternative sewage disposal systems and nonwater-carried sewage disposal facilities or parts thereof.

(3) Prescribe requirements for the pumping out or cleaning of subsurface sewage disposal systems, alternative sewage disposal systems and nonwater-carried sewage disposal facilities or parts thereof, for the disposal of material derived from such pumping out or cleaning, for sewage pumping equipment, for sewage tank trucks and for the identification of sewage tank trucks and workers.

(4) Prescribe requirements for handling kitchen, bath and laundry wastes as opposed to human and animal wastes which recognize the possibility for separate treatment of different types of waste."

[2] " Except as otherwise provided in ORS 454.675, without first obtaining a permit from the Department of Environmental Quality, no person shall construct or install a subsurface sewage disposal system, alternative sewage disposal system or part thereof. However, a person may undertake emergency repairs limited to replacing minor broken components of the system without first obtaining a permit."

statutory and judicially developed rules of construction that bear directly on how to read the text, such as "words of common usage typically should be given their plain, natural, and ordinary meaning." *Id.* at 611. The same method of analysis is used in determining the meaning of an administrative rule. *Abu-Adas v. Employment Dept.,* 325 Or 480 (1997).

OAR 340-071-0130(15) refers to a singular "on-site sewage disposal system." Two unconnected systems were installed by Respondent's employee, but DEQ required Respondent to acquire only one permit for the correction work. Also, the economic benefit calculation, which determined the amount Respondent saved by not complying, was based on Respondent failing to obtain only one permit. Heidi Williams, DEQ's water quality engineer, reported only one violation by Respondent for failing to obtain a permit, apparently relying on the policy that Respondent would be required to obtain only one permit for installing the two systems. DEQ presented evidence that its water engineer does not decide how many violations should be charged, but other than the fact that two unconnected systems were installed, DEQ provided no other evidence or justification for charging two violations. A technical reading of the rule could perhaps result in a conclusion that, because two systems were installed, there were two violations, but that would mean that Respondent was required to obtain two permits, which it was not. One of the main purposes of requiring installers of sewage systems to obtain permits is to provide DEQ notice of the installation so that DEQ can inspect and supervise the installation. Clearly, if the installations were at different times, this purpose could not be met, but DEQ has the burden of establishing different times and has not met that burden. Therefore, based on the text and context of the rule and especially DEQ's practice of issuing only one permit for a job, no matter how many systems are installed at the same time, the rule is interpreted to have required Respondent to obtain only one permit at the time the sewage systems were installed. DEQ's allegation that Respondent had committed two violations for the same situation, failing to get a permit for the project, is contrary to that interpretation. Therefore, only one violation occurred when Respondent's employee failed to obtain a permit for the work.

A related question is the degree of deference given to DEQ for interpretation of the rules. In *Don't Waste Oregon Com. v. Energy Siting Council,* 320 Or 132 (1994), the Court held that, where an agency's interpretation of its own rule is plausible and not inconsistent with the wording of the rule itself, the rule's context, or with any other source of law, there is no basis for asserting that the rule has been misinterpreted by the agency. DEQ's interpretation is of a rule promulgated by the Environmental Quality Commission (EQC). Pursuant to *Don't Waste Oregon Com.*, DEQ's interpretation is not entitled to deference. Finally, an agency's interpretation must demonstrate a rational relationship between the facts and resulting legal conclusions. *Solosha, Inc. v. Lane County*, 201 Or App 138 (2005), relying on *McCann v. OLCC*, 27 Or App 487, 493 (1976). DEQ's conclusion that Respondent committed two violations of the same rule during the same set of circumstances, installing two sewage systems at the same time, is not rationally related to its facts, based on its policy of requiring only one permit for installation of sewage systems on the same property at the same time. Respondent committed only one violation.

2. WPCF Violation

ORS 468B.025 provides in relevant part:

(2) No person shall violate the conditions of any waste discharge permit issued under ORS 468B.050.
(3) Violation of subsection (1) or (2) of this section is a public nuisance.

DEQ specifically alleged that Respondent modified a wastewater control facility without first gaining DEQ's approval in writing, "as required by [Section] D, Special Condition 3, of its WPCF permit." (Ex. P1 at pages 2 and 3 of the Notice.) Section D of Respondent's WPCF permit lists the following reporting requirements:

1. Plan Submittal

Pursuant to Oregon Revised Statute 468B.055, unless specifically exempted by rule, no construction, installation or modification of disposal systems, treatment works, or sewerage systems shall be commenced until plans and specifications are submitted to and approved in writing by the [DEQ]. All construction, installation or modification shall be in strict conformance with the [DEQ's] written approval of the plans.

2. Change in Discharge

Whenever a facility expansion, production increase, or process modification is anticipated which result in a change in the character of pollutants to be discharged or which will result in a new or increased discharge that will exceed the conditions of this permit, a new application must be submitted together with the necessary reports, plans, and specifications for the proposed changes. No change shall be made until plans have been approved and a new permit or permit modification has been issued.

3. Signatory Requirements

All applications, reports or information submitted to the [DEQ] shall be signed and certified by the official applicant of record (owner) or authorized designee.

DEQ concedes that the requirement in subsection 2 is not applicable because there is insufficient evidence that the modification of building new showers will result in a change in the character of the pollutants to be discharged or will result in a new or increased discharge. DEQ asserts that Respondent violated the requirement in subsection 1 by not submitting plans and specifications of the showers to DEQ before their construction or installation. This requirement is broad and seems to address the same

circumstances as in the requirement in subsection 2, which may cause some confusion. The difference between the two is that subsection 1 requires only submission of plans and specifications while subsection 2 requires applying for a permit. The broad language in subsection 1 clearly applies, even if the showers did not increase the amount of gray water. While there may be some confusion between the sections, Respondent's installation of the showers was a modification of its system and pursuant to subsection 1, Respondent was required to submit the plans and specifications of the showers to DEQ before installing them. It failed to do so and violated ORS 468B.025(2).

3. Civil Penalty

Violation One, No Permit

As explained above, DEQ has established only one violation for installing an on-site sewage system without a permit.

DEQ has the authority to assess a civil penalty for each of the violations described above. ORS 468.140(1)(b).[3]

The penalty for a violation is determined by calculating the base penalty (BP) and considering other factors, such as prior significant actions (P), past history (H), number of occurrences (O), Respondent's mental state during the violation (M), Respondent's cooperation (C), and the economic benefit (EB) Respondent gained from noncompliance (BP + [(.1 x BP) x (P + H + O + R + C)] + EB). OAR 340-012-0045, per the authority granted in ORS 468.130.

Respondent's violation of OAR 340-071-0130(15) is classified as a Class One violation. OAR 340-012-0060(1)(b).[4] OAR 340-012-0135 does not specify a particular magnitude for the violation of causing pollution of state waters, so the magnitude is

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[3] ORS 468.140(1)(b) states:

> Civil penalties for specified violations. (1) In addition to any other penalty provided by law, any person who violates any of the following shall incur a civil penalty for each day of violation in the amount prescribed by the schedule adopted under ORS 468.130:
> * * *
> (b) Any provision of ORS * * *, 454.605 to 454.755[.]

[4] OAR 340-012-0060(1) provides in relevant part:

> Class I:
> * * * * *
> (b) Installing or causing to be installed an onsite wastewater treatment system or any part thereof, or repairing or causing to be repaired any part thereof, without first obtaining a permit;

moderate unless DEQ establishes that it was major pursuant to OAR 340-012-0130(1).[5] DEQ has not claimed that the violation was major. The violation was not mild pursuant to OAR 340-012-0130(4)[6] because the violation posed more than a *de minimis* threat to human health or other environmental receptors, based on the inspection of the sewage systems by DEQ's Natural Resources Specialist on June 7, 2006. The violation was moderate.

The base penalty for a Class One, moderate violation is $1,250. OAR 340-012-0140(4)(b)(A)(ii) and OAR 340-012-0140(4)(a)(F).

DEQ alleged no prior significant actions (factor P) or past history (factor H), so these factors have no value (0). DEQ assigned a value of two (2) to the occurrence factor (O) because the violations were repeated or continuous for more than one day. Respondent argued that DEQ could not establish or presume that the installation of the sewage systems took more than one day, but such an implication is accepted under the circumstances, especially when the violation is based on installation of both systems, which took more than one day. DEQ assigned a value of two (2) to the mental state factor (M), alleging that Respondent's violation was negligent because it has had a WPCF permit since September 2002 and had constructive knowledge that it needed to secure a permit before installing the sewage systems. The negligence of its employee in performing the installations without a permit is imputed to Respondent. DEQ and Respondent stipulated that the cooperation factor (C) should be negative two (-2) because Respondent took costly and effective steps to comply after notice from DEQ.

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[5] OAR 340-012-0130(1) provides:

> For each civil penalty assessed, the magnitude is moderate unless:
> (a) A selected magnitude is specified in 340-012-0135 and information is reasonably available to the department to determine the application of that selected magnitude; or
> (b) The department determines, using information reasonably available to it, that the magnitude should be major under section (3) or minor under section (4).

[6] OAR 340-012-0130(4) provides:

> The magnitude of the violation is minor if the department finds that the violation had no more than a *de minimis* adverse impact on human health or the environment, and posed no more than a *de minimis* threat to human health or other environmental receptors. In making this finding, the department will consider all reasonably available information including, but not limited to: the degree of deviation from applicable statutes or commission and department rules, standards, permits or orders; the extent of actual or threatened effects of the violation; the concentration, volume, or toxicity of the materials involved; and the duration of the violation. In making this finding, the department may consider any single factor to be conclusive.

"The Economic Benefit (EB) is the approximate dollar value of the benefit gained and the costs avoided or delayed (without duplication) as a result of the respondent's noncompliance." OAR 340-012-0150(1).

DEQ alleged that the economic benefit (EB) that Respondent received from non-compliance was $706. This amount includes $31 for delaying payment of the site evaluation fee of $685 until November 9, 2005, and $675 for failing to pay the other fees. Respondent has since paid the other fees when it replaced the sewage systems. Respondent received some economic benefit for also delaying payment of this cost, but DEQ has the burden of establishing this benefit and provided no evidence to establish this benefit. The total EB Respondent received is only $31.

The total civil penalty is the base penalty of $1,250, plus $250 (total factors of 2 (2 + 2 - 2) x $125), plus the EB amount of $31, for a total penalty for this violation of $1,531.

Violation Two, Modifying WPCF Without Prior Approval

Respondent's violation for modifying a sewage system without authorization is classified as a Class One violation. OAR 340-012-0055(1)(i).[7] DEQ alleged that the violation is minor pursuant to OAR 340-012-0130(3) because it had no more than a *de minimis* adverse impact on human health or environment.

The base penalty for a Class One, minor violation is $625. OAR 340-012-0140(4)(b)(A)(iii) and OAR 340-012-0140(4)(a).

DEQ alleged no prior significant actions (factor P) or past history (factor H), so these factors have no value (0). DEQ assigned a value of two (2) to the occurrence factor (O) because the violation was repeated or continuous for more than one day. The showers likely took more than one day to construct and connect to the sewage system. Respondent did not dispute this value, so it is accepted. DEQ assigned a value of two (2) to the mental state factor (M), alleging that Respondent's violation was negligent because it had constructive knowledge that it may not modify its wastewater control facility without first gaining DEQ's approval in writing. OAR 340-012-0030(12) states, "'Negligence' or 'Negligent' means the respondent failed to take reasonable care to avoid a foreseeable risk of conduct constituting or resulting in a violation." As explained above, Respondent technically violated section 1, but not the very similar section 2, because it was not required to secure a permit when the amount of gray or sewage water did not increase. Because of this apparent conflict in the two requirements, Respondent's

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[7] OAR 340-012-0055(1)(i) provides:

> **Class I:**
> * * * * *
> (i) Making unauthorized changes, modifications, or alterations to a facility operating under a Water Pollution Control Facility (WPCF) or National Pollutant Discharge Elimination System (NPDES) permit;

belief that it did not need to notify DEQ was not unreasonable and DEQ has not established that Respondent did not take reasonable care. Respondent was therefore not negligent in failing to seek approval from DEQ before installing the showers and connecting it to the wastewater system described in its permit. The appropriate value is zero (0). DEQ and Respondent agreed that the cooperation factor (C) should be negative two (-2). DEQ alleged no economic benefit from this violation.

The total civil penalty is the base penalty of $625, less $125 (total factors of -2, multiplied by one-tenth of the base penalty ($62.50)), for a total penalty of $500.

The total penalty for the two violations is $2,031 ($1,531 + $500).

4. Department Order

At hearing, DEQ reported that Respondent had met the requirements in the Department Order, so DEQ no longer sought the Order and withdrew it.

PROPOSED ORDER

It is hereby PROPOSED that Respondent Shilo Management Corporation violated ORS 454.655(1), OAR 340-071-0130(15)(a), and ORS 468B.025(2) and is liable for a total civil penalty of $2,031.

This civil penalty will incur interest pursuant to ORS 82.010 if not paid within 10 days after signed by the Environmental Quality Commission (EQC). If the civil penalty remains unpaid for more than 10 days, this order may be filed with each County Clerk and executed.

Lawrence S. Smith
Administrative Law Judge
Office of Administrative Hearings
for the
Environmental Quality Commission

Mailing and Issuance Date: November 16, 2006

Appeal Rights

If you are not satisfied with this decision, you have the right to have the decision reviewed by the Oregon Environmental Quality Commission. To have the decision reviewed, you must file a "Petition for Review" within 30 days of the date this order is served on you as provided in Oregon Administrative Rule (OAR) 340-011-0132(1) and (2). The Petition for Review must be filed with:

Environmental Quality Commission
c/o Stephanie Hallock, Director, DEQ
811 SW Sixth Avenue
Portland, OR 97204.

Within 30 days of filing the Petition for Review, you must also file exceptions and a brief as in provided in OAR 340-011-0132(3). If the petition, exceptions and brief are filed in a timely manner, the Commission will set the matter for oral argument and notify you of the time and place of the Commission's meeting. The requirements for filing a petition, exceptions and briefs are set out in OAR 340-011-0132.

Unless you timely and appropriately file a Petition for Review as set forth above, this Proposed Order becomes the Final Order of the Environmental Quality Commission 30 days from the date of service on you of this Proposed Order. If you wish to appeal the Final Order, you have 60 days from the date the Proposed Order becomes the Final Order to file a petition for review with the Oregon Court of Appeals. See ORS 183.400 et. seq.

EXHIBIT LIST

Exhibit No.	Date	Description
P1	4/28/06	Cover Letter and Notice of Violation
P2	5/12/06	Respondent's request for hearing
P3	8/10/06	Notice of Hearing
A1	10/11/05	Water Quality Source Inspection Form
A2	10/11/05	Photos and notes of RV Spaces (8 pgs.)
A3	10/11/05	Photos and notes of RV Spaces (2 pgs.)
A4	10/20/05	Letter from Respondent (4 pgs.)
A5	10/19/05	Pre-Enforcement Notice from DEQ (2pgs.)
A6	9/05	DEQ investigation details (2 pgs.)
A7	3/29/06	Ben Calculation (10 pgs.)
A8	10/11/05	Photo and notes of showers
A9	9/11/02	Water Pollution Control Facilities Permit (WPCF) (8 pgs.)
A10	11/7/05	Respondent letter to DEQ (3 pgs.)
A11	6/27/06	Site Evaluation Report (5 pgs.)
R1	5/31/05	Troy Lodge Expenses by Respondent (4 pgs.)
R2	11/15/05	Complaint in Union County Court (11 pgs.)

CERTIFICATE OF SERVICE

I certify that on November 16, 2006, I served the attached Proposed Order Assessing Civil Penalty by mailing certified and/or first class mail, in a sealed envelope, with first class postage prepaid, a copy thereof addressed as follows:

SHILO MANAGEMENT CORPORATION
11600 SW SHILO LANE
PORTLAND OR 97225

BY FIRST CLASS MAIL

PHILIP S HARRIS
ATTORNEY AT LAW
SHILO MANAGEMENT CORP
11600 SW SHILO LN
PORTLAND OR 97225

BY FIRST CLASS AND CERTIFIED MAIL
CERTIFIED MAIL RECEIPT # 7005 1160 0003 9713 7787

BRYAN SMITH
OREGON DEQ
2146 NE 4TH ST
BEND OR 97701

BY FIRST CLASS MAIL

Pamela Arcari

Pamela Arcari, Administrative Specialist
Office of Administrative Hearings

BEFORE THE OFFICE OF ADMINISTRATIVE HEARINGS
STATE OF OREGON
for the
DEPARTMENT OF ENVIRONMENTAL QUALITY

IN THE MATTER OF:	)	**NOTICE OF HEARING**
	)	
SHILO MANAGEMENT	)	OAH Case No.: 129617
CORPORATION	)	Agency Case No.: WQ/D-ER-06-054

A hearing has been set in the above matter before the Office of Administrative Hearings.

Hearing Date: **October 17, 2006** **Hearing Time:** **9:00 a.m.**

Location: **Department of Environmental Quality**
811 SW 6th Ave
Portland, OR 97204

Your case has been assigned to **Administrative Law Judge Lawrence S. Smith** an employee of the Office of Administrative Hearings. The Office of Administrative Hearings is an impartial tribunal, and is independent of the agency proposing the action.

Unless otherwise notified, all correspondence, inquiries, exhibits and filings should be sent to:

Lawrence S. Smith
Office of Administrative Hearings
1905 Lana Ave NE
Salem OR 97314-0100
FAX # (503) 238-5410

OAR 137-003-0520 requires a copy of any correspondences, exhibits or other filings to be provided to all parties and the agency at the same time they are provided to the ALJ.

A request for reset of the hearing must be submitted in writing prior to the hearing. A postponement request will only be granted on a showing of good cause and with the approval of the administrative law judge.

If you are hearing impaired, need a language interpreter or require another type of accommodation to participate in or attend the hearing, immediately notify the Office of Administrative Hearings at (503) 945-5547 or TDD at 1-800-735-1232 to make the appropriate arrangements. The Office of Administrative Hearings can arrange for an interpreter at the hearing. Interpreters must be certified or qualified in order to participate in a contested case hearing and may not have a conflict of interest with the hearing participants.

You are required to notify the Office of Administrative Hearings at (503) 945-5547 immediately if you change your address or telephone number prior to a decision in this matter.

Notice served on all non-agency parties by: First Class and Certified Mail
Certified Mail Receipt #**7005 2570 0001 4246 3130**

Notice served on Agency by First Class Mail

Mailed: August 10, 2006 Mailed by: *Jennifer Halfman*

This Notice has been provided to the following:

PHILIP S HARRIS
ATTORNEY AT LAW
SHILO MANAGEMENT CORP
11600 SW SHILO LN
PORTLAND OR 97225

BRYAN SMITH
DEQ
2146 NE 4TH STREET
BEND OR 97701

DEPARTMENT OF ENVIRONMENTAL QUALITY HEARINGS

IMPORTANT INFORMATION FOR PREPARING FOR YOUR HEARING

NOTICE OF CONTESTED CASE RIGHTS AND PROCEDURES

Under ORS 183.413(2), you must be informed of the following:

1. Law that applies. The hearing is a contested case and it will be conducted under ORS Chapter 183 and Oregon Administrative Rules of the Department of Environmental Quality, Chapters 137 and 340.

2. Rights to an attorney. You may represent yourself at the hearing, or be represented by an attorney or an authorized representative, such as a partner, officer, or an employee. If you are a company, corporation, organization or association, you must be represented by an attorney or an authorized representative. Prior to appearing on your behalf, an authorized representative must provide a written statement of authorization. If you choose to represent yourself, but decide during the hearing that an attorney is necessary, you may request a recess. About half of the parties are not represented by an attorney. DEQ will be represented by an Assistant Attorney General or an Environmental Law Specialist.

3. Administrative law judge. The person presiding at the hearing is known as the administrative law judge. The administrative law judge is an employee of the Office of Administrative Hearings under contract with the Environmental Quality Commission. The administrative law judge is not an employee, officer or representative of the agency.

4. Appearance at hearing. If you withdraw your request for a hearing, notify either DEQ or the administrative law judge that you will not appear at the hearing, or fail to appear at the hearing, a final default order will be issued. This order will be issued only upon a prima facie case based on DEQ's file. No hearing will be conducted.

5. Address change or change of representative. It is your responsibility to notify DEQ and the administrative law judge of any change in your address or a withdrawal or change of your representative.

6. Interpreters. If you have a disability or do not speak English, the administrative law judge will arrange for an interpreter. DEQ will pay for the interpreter if (1) you require the interpreter due to a disability or (2) you file with the administrative law judge a written statement under oath that you are unable to speak English and you are unable to obtain an interpreter yourself. You must provide notice of your need for an interpreter at least 14 days before the hearing.

7. Witnesses. All witnesses will be under oath or affirmation to tell the truth. All parties and the administrative law judge will have the opportunity to ask questions of all witnesses. DEQ or the administrative law judge will issue subpoenas for witnesses on your behalf if you show that their testimony is relevant to the case and is reasonably needed to establish your position. You are not required to issue subpoenas for appearance of your own witnesses. If you are represented by an attorney, your attorney may issue subpoenas. Payment of witness fees and mileage is your responsibility.

8. Order of evidence. A hearing is similar to a court trial but less formal. The purpose of the hearing is to determine the facts and whether DEQ's action is appropriate. In most cases, DEQ will offer its evidence first in support of its action. You will then have an opportunity to present evidence to oppose DEQ's evidence. Finally, DEQ and you will have an opportunity to rebut any evidence.

9. Burden of presenting evidence. The party who proposes a fact or position has the burden of proving that fact or position. You should be prepared to present evidence at the hearing which will support your position. You may present physical, oral or written evidence, as well as your own testimony.

10. Admissible evidence. Only relevant evidence of a type relied upon by reasonably prudent persons in the conduct of their serious affairs will be considered. Hearsay evidence is not automatically excluded. Rather, the fact that it is hearsay generally affects how much the Commission will rely on it in reaching a decision.

There are four kinds of evidence:

a. Knowledge of DEQ and the administrative law judge. DEQ or the administrative law judge may take "official notice" of conclusions developed as a result of its knowledge in its specialized field. This includes notice of general, technical or scientific facts. You will be informed should DEQ or the administrative law judge take "official notice" of any fact and you will be given an opportunity to contest any such facts.

b. Testimony of witnesses. Testimony of witnesses, including you, who have knowledge of facts may be received in evidence.

c. Writings. Written documents including letters, maps, diagrams and other written materials may be received in evidence.

d. Experiments, demonstrations and similar means used to prove a fact. The results of experiments and demonstrations may be received in evidence if they are reliable.

11. Objections to evidence. Objections to the consideration of evidence must be made at the time the evidence is offered. Objections are generally made on one of the following grounds:

a. The evidence is unreliable;

b. The evidence is irrelevant or immaterial and has no tendency to prove or disprove any issue involved in the case;

c. The evidence is unduly repetitious and duplicates evidence already received.

12. Continuances. There are normally no continuances granted at the end of the hearing for you to present additional testimony or other evidence. Please make sure you have all your evidence ready for the hearing. However, if you can show that the record should remain open for additional evidence, the administrative law judge may grant you additional time to submit such evidence.

13. Record. A record will be made of the entire proceeding to preserve the testimony and other evidence for appeal. This will be done by tape recorder. This tape and any exhibits received in the record will be the whole record of the hearing and the only evidence considered by the administrative law judge. A copy of the tape is available upon payment of a minimal amount, as established by DEQ. A transcript of the record will not normally be prepared, unless there is an appeal to the Court of Appeals.

14. Proposed and Final Order. The administrative law judge has the authority to issue a proposed order based on the evidence at the hearing. The proposed order will become the final order of the Environmental Quality Commission if you do not petition the Commission for review within 30 days of service of the order. The date of service is the date the order is mailed to you, not the date that you receive it. The Department must receive your petition seeking review within 30 days. See OAR 340-011-0132.

15. Appeal. If you are not satisfied with the decision of the Commission, you have 60 days from the date of service of the order, to appeal this decision to the Court of Appeals. See ORS 183.480 *et seq.*

Shilo INNS
Suites Hotels
"Affordable Excellence"

May 12, 2006

Deborah Nesbit,
Oregon Department of Environmental Quality
811 SW Sixth Avenue
Portland, OR 97204

Re: In the matter of Shilo Management Corporation,
Notice of Violation, Department Order and Assessment of Civil Penalty
No. WQ/D-ER-06-054, Wallowa County

Respondent hereby appeals the Environmental Quality Commission's order in the above-referenced matter, submits an Answer herein, and requests a hearing. Without waiving Respondent's right to a contested case hearing, Respondent further requests an informal discussion

Defendant answers the allegations set forth in the Notice as follows:

I: Admit.

II: Admit. However, the permit should have been issued under the name Troy Lodge, LLC.

III. 1: Deny. The lodge is owned by Troy Lodge, LLC and leased to Farwill, Inc., a Washington corporation.

III. 2: Deny.

III. 3: Deny.

III. 4: Deny.

III. 5: Admit.

IV. Respondent denies all violations.

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Sales & Marketing Fax: (503) 644-0868
General Fax: (503) 643-7261

Shilo Management Corporation
11600 SW Shilo Lane
Portland, Oregon 97225-5995

Phone: (503) 641-6565
www.shiloinns.com
Reservations 1-800-222-2244

V. Respondent denies the imposition of the penalties.

VI. 1: Respondent denies the violations but nevertheless is taking actions requested by the Department of Environmental Quality.

VI. 2: No exhibit was attached to the notice; however, Respondent is in receipt of the Department's December 20, 2005 letter and, without admitting any non-compliance with Department requirements, is complying with the December 20, 2005 letter as amended by the Department's April 20, 2006 letter.

For first affirmative defense, Respondent alleges that it is not the proper Respondent and that the true Respondent is Troy Lodge, LLC, which properly named Respondent hereby stipulates to being substituted for the improperly named Shilo Management Corporation.

For a second affirmative defense, Respondent alleges that the civil penalty determination procedure was improperly applied.

Very truly yours,

Shilo Management Corporation

By: _____
Philip S. Harris, its Vice President

and

Troy Lodge, LLC,
By Shilo Management Corporation, its Manager

By: _____
Philip S. Harris, its Vice President

PSH:rls

cc: Bryan Smith,
DEQ Office of Compliance and Enforcement

Oregon
Theodore R. Kulongoski, Governor

Department of Environmental Quality
811 SW Sixth Avenue
Portland, OR 97204-1390
503-229-5696
TTY 503-229-6993

April 28, 2006

CERTIFIED MAIL No. 7003 1010 0000 3938 0548

Shilo Management Corporation
c/o: John P. Kneeland, Registered Agent
11600 S.W. Shilo Lane
Portland, OR 97225

Re: Notice of Violation, Department Order and Assessment of Civil Penalty
No. WQ/D-ER-06-054
Wallowa County

Shilo Management Corporation (Shilo) is the owner of the Shilo Inn, located at 84570 Bartlett Road in Troy, Oregon (the Facility). On October 12, 2005, Heidi Williams of the Department of Environmental Quality (the Department) responded to a complaint that onsite sewage disposal systems had been installed at the Facility without permits from the Department.

Ms. Williams inspected the Facility and observed new RV hookups, a dosing tank, a septic tank and a control panel for 13 RV spaces along the Grande Ronde River, as well as a new 1,000 gallon holding tank and hookups for seven additional RV spaces along the Wenaha River. Shilo allowed one of its employees to install these septic systems without first obtaining the appropriate permits from the Department.

Oregon law requires that a permit be issued before installation of an onsite sewage disposal system. The permit helps ensure that the system will be sited properly and will meet engineering and construction standards. An improperly constructed onsite sewage disposal system may not function and may create a public health hazard through inadequate treatment and distribution of sewage effluent. Causing or allowing construction, alteration, or repair of an onsite sewage disposal system without a permit is a Class I violation of Oregon's environmental laws.

Ms. Williams also observed that three new shower rooms had been installed on the north side of the existing bathhouse at the Facility. Those showers discharge additional graywater to one of Shilo's existing onsite sewage disposal systems at the Facility. Shilo holds a Water Pollution Control Facilities (WPCF) Permit to operate several onsite sewage disposal systems at the Facility. When Shilo allowed the graywater from the showers to be discharged to its existing WPCF-permitted onsite sewage disposal systems, Shilo made an unauthorized change, modification or alteration to the Facility under its WPCF permit. Shilo's WPCF permit requires that all modifications first be reviewed and approved by the Department, and this unauthorized modification is a Class I violation of Oregon's environmental laws.

Shilo is liable for a civil penalty assessment for causing or allowing the installation of on-site sewage disposal systems without first obtaining permits, and making an unauthorized modification to its Facility. In the enclosed Notice and Order, I have assessed a civil penalty of $5,081. In determining the amount of the penalty, I used the procedures set forth in Oregon Administrative Rule (OAR) 340-012-0045. The Department's findings and civil penalty determination are attached to the Notice and Order as Exhibit Nos. 1, 2 and 3.

In addition to the civil penalty assessment, the enclosed Order (Section VI) requires Shilo to submit, by May 1, 2006, an updated site plan and confirm that the site is prepared for inspection in accordance with the Department's December 20, 2005 letter.

The steps Shilo must follow to request a review of the Department's allegations and determinations in this matter are set forth in Section VII of the enclosed Notice and Order. If Shilo wishes to have a hearing on this matter, Shilo must specifically request a hearing in writing. Attached to the hearing request must be Shilo's Answer in which Shilo must admit or deny each of the facts alleged in Sections III and IV of the Notice and Order. In Shilo's Answer, Shilo should also allege all affirmative defenses and provide reasons they apply in this matter. Shilo will not be allowed to raise these issues at a later time, unless Shilo can later show good cause for its failure to raise them.

The applicable rules are enclosed for Shilo's review. Shilo needs to follow the rules to ensure that Shilo does not lose its opportunity to dispute the Department's findings (see OAR 340-011-0530 and OAR 137-003-0528, copy enclosed). If the Department does not receive Shilo's request for a hearing and Answer within 20 calendar days from the date Shilo received the Notice and Order, a Default Order will be entered against Shilo and the civil penalty will become due at that time. Shilo can fax its request for hearing and Answer to the Department at (503) 229-6762.

If Shilo wishes to discuss this matter, or believes there are mitigating factors that the Department might not have considered in assessing the civil penalty, the company may request an informal discussion by attaching the request to its appeal. Shilo's request to discuss this matter with the Department will not waive the company's right to a contested case hearing.

Also enclosed is a copy of the Department's internal management directive regarding civil penalty mitigation for Supplemental Environmental Projects (SEPs). If Shilo is interested in having a portion of the civil penalty fund an SEP, Shilo should review the enclosed SEP directive.

I look forward to Shilo's cooperation in complying with Oregon's environmental laws in the future. However, if any additional violations occur, Shilo may be assessed additional civil penalties.

If Shilo has any questions about this action, please contact Bryan Smith with the Department's Office of Compliance and Enforcement in Bend at 541-388-6146, extension 245, or toll-free at 1-800-452-4011.

Sincerely,

Anne R. Price
Administrator, Office of Compliance and Enforcement

Enclosures

cc:

Heidi Williams, Eastern Region, Pendleton Office, DEQ
Diane Naglee, Eastern Region, Baker City Office, DEQ
Duane Smith, Eastern Region, Pendleton Office, DEQ
Brett McKnight, Eastern Region, Bend Office, DEQ
Water Quality, Eastern Region, DEQ
Oregon Department of Justice
Environmental Quality Commission
Wallowa County District Attorney

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION

OF THE STATE OF OREGON

IN THE MATTER OF: SHILO MANAGEMENT CORPORATION, an Oregon corporation, Respondent.	)))))))	NOTICE OF VIOLATION, DEPARTMENT ORDER AND ASSESSMENT OF CIVIL PENALTY No. WQ/D-ER-06-054 WALLOWA COUNTY

I. AUTHORITY

This Notice of Violation, Department Order and Assessment of Civil Penalty (Notice and Order) is issued to Respondent, Shilo Management Corporation, an Oregon corporation, by the Department of Environmental Quality (Department) pursuant to Oregon Revised Statutes (ORS) 468.100 and ORS 468.126 through 468.140, ORS Chapter 183; and Oregon Administrative Rules (OAR) Chapter 340, Divisions 11 and 12.

II. PERMIT

On September 11, 2002, the Department assigned Water Pollution Control Facilities (WPCF) Permit No. 103456 (Permit) to Respondent. The Permit authorizes Respondent to construct, install, modify, or operate a wastewater collection, treatment, control and disposal system in conformance with all the requirements, limitations, and conditions in the Permit. The Permit expires on December 31, 2009. The Permit was in effect at all material times.

III. FINDINGS

1. Respondent owns and operates the Shilo Inn Lodge, located at 84570 Bartlett Road in Troy, Oregon (the Facility) under the Permit.

2. In or prior to August 2003, Respondent allowed its employee to install a holding tank and hookups for seven recreational vehicle (RV) spaces at the Facility without first obtaining a permit from the Department.

/////

/////

3. In or prior to August 2003, Respondent allowed its employee to install a septic tank, a dosing tank, a control panel and hookups for thirteen RV spaces at the Facility without first obtaining a permit from the Department.

4. In or prior to March 2005, Respondent allowed its employee to install three shower rooms at the Facility, and then discharged the graywater from those showers to one of Respondent's existing WPCF-permitted onsite sewage disposal systems. Respondent did not obtain written approval from the Department prior to making this unauthorized modification to its wastewater control facility.

5. On October 19, 2005, the Department sent Respondent a Pre-Enforcement Notice (PEN) informing Respondent of these violations.

IV. VIOLATIONS

1. In or prior to August 2003, Respondent caused or allowed the construction, alteration, or repair of an on-site sewage disposal system, or a part thereof, without first applying for and obtaining a permit from the Department, in violation of ORS 454.655(1) and OAR 340-071-0130(15)(a). Specifically, Respondent's employee installed a holding tank and hookups for seven recreational vehicle (RV) spaces at the Facility without first obtaining a permit from the Department. According to OAR 340-012-0060(1)(b), this is a Class I violation.

2. In or prior to August 2003, Respondent caused or allowed construction, alteration, or repair of an on-site sewage disposal system, or a part thereof, without first applying for and obtaining a permit from the Department, in violation of ORS 454.655(1) and OAR 340-071-0130(15)(a). Specifically, Respondent's employee installed a septic tank, a dosing tank, a control panel, a drainfield and hookups for thirteen RV spaces at the Facility without first obtaining a permit from the Department. According to OAR 340-012-0060(1)(b), this is a Class I violation.

3. In or prior to March 2005, Respondent violated ORS 468B.025(2) by violating a condition of a waste discharge permit. Specifically, Respondent modified its wastewater control facility without first gaining the Department's approval in writing, as required by Schedule D,

Special Condition 3, of its WPCF permit. Respondent allowed its employee to install three shower rooms at the Facility, and then discharged the graywater from those showers to one of Respondent's existing WPCF-permitted onsite sewage disposal systems. Respondent did not obtain written approval from the Department prior to causing this unauthorized modification to its existing WPCF-permitted onsite sewage disposal system. This is a Class I violation pursuant to OAR 340-012-0055(1)(i).

V. ASSESSMENT OF CIVIL PENALTY

The Director imposes a civil penalty for the violations cited in Section IV, Paragraphs 1, 2 and 3, as follows:

Violation	Penalty Amount
1	$2,456
2	1,750
3	875

Respondent's total civil penalty is $5,081.

The findings and determination of the amount of Respondent's civil penalty, pursuant to OAR 340-012-0045, are attached and incorporated as Exhibit Nos. 1, 2 and 3.

VI. DEPARTMENT ORDER

Based upon the foregoing FINDINGS AND VIOLATIONS, Respondent is hereby ORDERED TO:

1. Immediately initiate actions necessary to correct all of the above-cited violations and come into full compliance with Oregon's laws and rules.

2. Take the following actions:

   a. By May 1, 2006, submit an updated site plan and confirm that the site is prepared for inspection in accordance with the Department's December 20, 2005, letter to Respondent, attached hereto as Attachment A and incorporated herein by reference.

/////

VII. OPPORTUNITY FOR CONTESTED CASE HEARING

Respondent has the right to have a contested case hearing before the Environmental Quality Commission (Commission) or its hearings officer regarding the matters contained in this Notice and Order, provided Respondent files a written request for a hearing and an Answer within **twenty (20) calendar days** from the date of service of this Notice and Order. Pursuant to OAR 340-011-0530(4), if Respondent fails to file a timely request for a hearing, the late filing will not be allowed unless the late filing was beyond Respondent's reasonable control. Pursuant to OAR 137-003-0528(1), if Respondent fails to file a timely Answer, the late filing will not be allowed unless Respondent can show good cause for the late filing.

The request for a hearing must either specifically request a hearing or state that Respondent wishes to appeal this Notice and Order. In the written Answer, Respondent must admit or deny each allegation of fact contained in this Notice and Order, and must specifically state all affirmative defenses to the assessment of the civil penalty that Respondent may have and the reasoning in support of any defenses. The contested case hearing will be limited to those issues raised in this Notice and Order and in the Answer. Unless Respondent is able to show good cause:

1. Factual matters not denied in a timely manner will be considered admitted;
2. Failure to timely raise a defense will waive the ability to raise that defense at a later time;
3. New matters alleged in the Answer will be presumed to be denied by the Department unless admitted in subsequent pleading or stipulation by the Department or Commission.

Send the request for hearing and Answer to: **Deborah Nesbit, Oregon Department of Environmental Quality, 811 S.W. 6th Avenue, Portland, Oregon 97204 or via fax at 503-229-6762**. Following the Department's receipt of a request for hearing and an Answer, Respondent will be notified of the date, time and place of the hearing.

Failure to file a timely request for hearing or an Answer may result in the entry of a Default Order for the relief sought in this Notice and Order.

Failure to appear at a scheduled hearing may result in an entry of a Default Order.

The Department's case file at the time this Notice and Order was issued may serve as the record for purposes of entering a Default Order.

VIII. OPPORTUNITY FOR INFORMAL DISCUSSION

In addition to filing a request for a contested case hearing, Respondent may also request an informal discussion with the Department by attaching a written request to the hearing request and Answer.

IX. PAYMENT OF CIVIL PENALTY

The civil penalty is due and payable ten (10) days after an Order imposing the civil penalty becomes final by operation of law or on appeal. Respondent may pay the penalty before that time. Respondent's check or money order in the amount of $5,081 should be made payable to **"State Treasurer, State of Oregon"** and sent to the **Business Office, Department of Environmental Quality, 811 S.W. Sixth Avenue, Portland, Oregon 97204**

9/28/06
Date

for
Anne R. Price, Administrator
Office of Compliance and Enforcement

EXHIBIT 1

FINDINGS AND DETERMINATION OF RESPONDENT'S CIVIL PENALTY
PURSUANT TO OREGON ADMINISTRATIVE RULE (OAR) 340-012-0045

VIOLATION 1: Causing or allowing the construction, alteration or repair of a subsurface sewage disposal system without first obtaining a permit from the Department, in violation of Oregon Revised Statute (ORS) 454.655(1) and OAR 340-071-0130(15)(a).

CLASSIFICATION: This is a Class I violation pursuant to OAR 340-012-0060(1)(b).

MAGNITUDE: The magnitude of the violation is moderate pursuant to OAR 340-012-0130(1), as there is no selected magnitude specified in OAR 340-012-0135 for this violation, and the information reasonably available to the Department does not indicate a minor or major magnitude.

CIVIL PENALTY FORMULA: The formula for determining the amount of penalty of each violation is:

$$BP + [(0.1 \times BP) \times (P + H + O + M + C)] + EB$$

"BP" is the base penalty which is $1,250 for a Class I, moderate magnitude violation in the matrix listed in OAR 340-012-0140(4)(b)(A)(ii) and applicable pursuant to OAR 340-012-0140(4)(a)(A).

"P" is Respondent's prior significant actions, as defined in OAR 340-012-0030(16), and receives a value of 0 according to OAR 340-012-0145(2)(a)(A), because Respondent has no prior significant actions.

"H" is the past history of Respondent in taking all feasible steps or procedures necessary to correct any prior significant actions and receives a value of 0 according to OAR 340-012-0145(3)(a)(C), because Respondent has no prior significant actions.

"O" is whether or not the violation was repeated or ongoing and receives a value of 2 according to OAR 340-012-0145(4)(a)(B), because the violation existed for or occurred on more than one day up to and including six days.

"M" is the cause of the violation and receives a value of 2 pursuant to OAR 340-012-0145(5)(a)(B), because Respondent's conduct was negligent. Respondent has a Water Pollution Control Facilities (WPCF) Permit for other onsite sewage disposal systems at its Facility, and has at least constructive knowledge that it may not cause or allow the construction, alteration or repair of an onsite sewage disposal system without first obtaining a permit from the Department.

"C" is Respondent's cooperativeness in correcting the violation and receives a value of 0 according to OAR 340-012-0145(6)(a)(D), because the violation could not be corrected.

"EB" is the approximate economic benefit that an entity gained by not complying with the law. It is designed to "level the playing field" by taking away any economic advantage the entity gained and to deter potential violators from deciding it is cheaper to violate and pay the penalty than to pay the costs of compliance. In this case, "EB" receives a value of $706. This is the amount Respondent gained by not spending $330 on a plan review fee, $600 on a permit modification fee, and $60 on a

069

filing fee, while delaying the $685 site evaluation fee until November 9, 2005. These costs should have been incurred on or before September 1, 2003. This "EB" was calculated pursuant to OAR 340-012-0150(1) using the U.S. Environmental Protection Agency's BEN computer model.

PENALTY CALCULATION:

Penalty = BP + [(0.1 x BP) x (P + H + O + M + C)] + EB
= $1,250 + [(0.1 x $1,250) x (0 + 0 + 2 + 2 + 0)] + $706
= $1,250 + ($125 x 4) + $706
= $1,250 + $500 + $706
= $2,456

070

EXHIBIT 2

FINDINGS AND DETERMINATION OF RESPONDENT'S CIVIL PENALTY
PURSUANT TO OREGON ADMINISTRATIVE RULE (OAR) 340-012-0045

VIOLATION 2: Causing or allowing the construction, alteration or repair of a subsurface sewage disposal system without first obtaining a permit from the Department, in violation of Oregon Revised Statute (ORS) 454.655(1) and OAR 340-071-0130(15)(a).

CLASSIFICATION: This is a Class I violation pursuant to OAR 340-012-0060(1)(b).

MAGNITUDE: The magnitude of the violation is moderate pursuant to OAR 340-012-0130(1), as there is no selected magnitude specified in OAR 340-012-0135 for this violation, and the information reasonably available to the Department does not indicate a minor or major magnitude.

CIVIL PENALTY FORMULA: The formula for determining the amount of penalty of each violation is:

$$BP + [(0.1 \times BP) \times (P + H + O + M + C)] + EB$$

"BP" is the base penalty which is $1,250 for a Class I, moderate magnitude violation in the matrix listed in OAR 340-012-0140(4)(b)(A)(ii) and applicable pursuant to OAR 340-012-0140(4)(a).

"P" is Respondent's prior significant actions, as defined in OAR 340-012-0030(16), and receives a value of 0 according to OAR 340-012-0145(2)(a)(A), because Respondent has no prior significant actions.

"H" is the past history of Respondent in taking all feasible steps or procedures necessary to correct any prior significant actions and receives a value of 0 according to OAR 340-012-0145(3)(a)(C), because Respondent has no prior significant actions.

"O" is whether or not the violation was repeated or ongoing and receives a value of 2 according to OAR 340-012-0145(4)(a)(B), because the violation existed for or occurred on more than one day up to and including six days.

"M" is the cause of the violation and receives a value of 2 pursuant to OAR 340-012-0145(5)(a)(B), because Respondent's conduct was negligent. Respondent has a Water Pollution Control Facilities (WPCF) Permit for other onsite sewage disposal systems at its Facility, and has at least constructive knowledge that it may not cause or allow the construction, alteration or repair of an onsite sewage disposal system without first obtaining a permit from the Department.

"C" is Respondent's cooperativeness in correcting the violation and receives a value of 0 according to OAR 340-012-0145(6)(a)(D), because the violation could not be corrected.

"EB" is the approximate economic benefit that an entity gained by not complying with the law. It is designed to "level the playing field" by taking away any economic advantage the entity gained and to deter potential violators from deciding it is cheaper to violate and pay the penalty than to pay the costs of compliance. In this case, the "EB" for Violation 2 has been assessed as part of the civil penalty for Violation 1.

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PENALTY CALCULATION:

Penalty = BP + [(0.1 x BP) x (P + H + O + M + C)] + EB
= $1,250 + [(0.1 x $1,250) x (0 + 0 + 2 + 2 + 0)] + $0
= $1,250 + ($125 x 4) + $0
= $1,250 + $500 + $0
= $1,750

072

EXHIBIT 3

FINDINGS AND DETERMINATION OF RESPONDENT'S CIVIL PENALTY PURSUANT TO OREGON ADMINISTRATIVE RULE (OAR) 340-012-0045

VIOLATION 3: Violating a condition of a waste discharge permit by modifying a wastewater control facility without first gaining the Department's approval in writing, in violation of Oregon Revised Statute (ORS) 468B.025(2) and Special Condition 3 of Schedule D of Respondent's Permit.

CLASSIFICATION: This is a Class I violation pursuant to OAR 340-012-0055(1)(i).

MAGNITUDE: The magnitude of the violation is minor pursuant to OAR 340-012-0130(3). The violation had no more than a de minimis adverse impact on human health or the environment.

CIVIL PENALTY FORMULA: The formula for determining the amount of penalty of each violation is:

$$BP + [(0.1 \times BP) \times (P + H + O + M + C)] + EB$$

"BP" is the base penalty which is $625 for a Class I, moderate minor violation in the matrix listed in OAR 340-012-0140(4)(b)(A)(iii) and applicable pursuant to OAR 340-012-0140(4)(a)

"P" is Respondent's prior significant actions, as defined in OAR 340-012-0030(16), and receives a value of 0 according to OAR 340-012-0145(2)(a)(A), because Respondent has no prior significant actions.

"H" is the past history of Respondent in taking all feasible steps or procedures necessary to correct any prior significant actions and receives a value of 0 according to OAR 340-012-0145(3)(a)(C), because Respondent has no prior significant actions.

"O" is whether or not the violation was repeated or ongoing and receives a value of 2 according to OAR 340-012-0145(4)(a)(B), because the violation existed for or occurred on more than one day up to and including six days.

"M" is the cause of the violation and receives a value of 2 pursuant to OAR 340-012-0145(5)(a)(B), because Respondent's conduct was negligent. Respondent has a Water Pollution Control Facilities (WPCF) Permit for other onsite sewage disposal systems at its Facility, and has at least constructive knowledge that it may not modify its wastewater control facility without first gaining the Department's approval in writing.

"C" is Respondent's cooperativeness in correcting the violation and receives a value of 0 according to OAR 340-012-0145(6)(a)(D), because the violation could not be corrected.

"EB" is the approximate economic benefit that an entity gained by not complying with the law. It is designed to "level the playing field" by taking away any economic advantage the entity gained and to deter potential violators from deciding it is cheaper to violate and pay the penalty than to pay the costs of compliance. In this case, "EB" receives a value of $0 because Respondent did not receive any economic benefit through this violation.

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PENALTY CALCULATION:

Penalty = BP + [(0.1 x BP) x (P + H + O + M + C)] + EB
= $625 + [(0.1 x $625) x (0 + 0 + 2 + 2 + 0)] + $0
= $625 + ($62.50 x 4) + $0
= $625 + $250 + $0
= $875

074

OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY — WATER QUALITY SOURCE INSPECTION FORM

Permittee: SHILO MANAGEMENT CORPORATION	Source Address: 84570 BARTLETT RD.	Date Inspected: October 11, 2005
Facility Name: SHILO INN	Source Phone #: (503) 641-6565	Official Contacted/Title: Red Matlock, employee
File # (Site ID #): 103546	Mailing Address: 11600 SW Shilo Ln Portland, OR 97225-5919	
EPA ID # (NPDES only): Not applicable		Samples Taken: YES [X] NO SPLIT
Permit #: 102593	System Classification: Treatment: Not applicable Collection: Not applicable	Type of Inspection: Compliance
Permit Exp. Date: 12/31/2009		

COMPLIANCE STATUS	In Comp	Not In Comp	On Schedule
Schedule A Waste Discharge Limitations		[X]	
Schedule B Monitoring and Reporting	[X]		
Schedule C Compliance Conditions			
Schedule D Special Conditions		[X]	
General Conditions		[X]	
SFO or MAO Requirements			

VIOLATIONS NOTED: Operation of two on-site wastewater treatment systems for RV parking areas without a permit. Installation of showers in laundry room without prior approval.

SUMMARY OF INSPECTION FINDINGS, COMMENTS & RECOMMENDATIONS

In response to complaint ERP-2005-0169, I scheduled an inspection at the Shilo Inn at Troy. I arrived at the restaurant at 9:30 am and notified Ms. Red Matlock that I would be inspecting the sewer systems. I began the inspection with the pressurized drainfield, dosing tank, and control panel for the RV parking area along the Grande Ronde River. These items existed as the complainant stated. This system was installed in 2004. The dosing tank smelled strongly of domestic waste and I heard the pump running when I turned the control panel to manual. There was a pipe coming out of the side as the complainant had indicated. The lawn area is indented where it appeared the lines were installed. I opened the round valve boxes and found a valve, possibly for the sprinkler system. The pressurized drainfield is about 116 feet long. The midpoint of this pressurized line was 97 feet from the river bank. The end nearest the river was 67 feet from the river bank. The 13 RV parking spots contained power, sewer and water hookups. The sewer hookup is 7 feet from the waterline, 11 feet from the power line, and 23 feet from the river bank.

I next inspected the holding tank for the RV parking area by the Wenaha R. The septic ta[illegible] sewer hookups and water hookups were installed as indicated by the complainant. The septic tank was 41 feet from the river bank, 11 feet to the power line, 5 feet to the water hookup line, and 114 feet to the nearest well. The septic tank smelled of domestic waste when I lifted the lid. There are 7 spaces in the RV parking area with water, sewer, and power hookup.

The shower/laundry building did contain new rooms for showering. These doors were locked, but Ms. Red Matlock confirmed there are 3 showers on the north side of the building.

☐ CONTINUED ON ATTACHED PAGE

PREPARATION TIME: 3 HRS
INSPECTION TIME: 9 HRS (include travel time)
FOLLOW-UP TIME: 3 HRS (write-up, enforcement)
CC: ☑ Permittee ☐ WQ UIC Coordinator ☐ Other: ____

Inspector's Name: Heidi Williams, PE
Inspector's Signature: Heidi Williams
Date: October 18, 2005

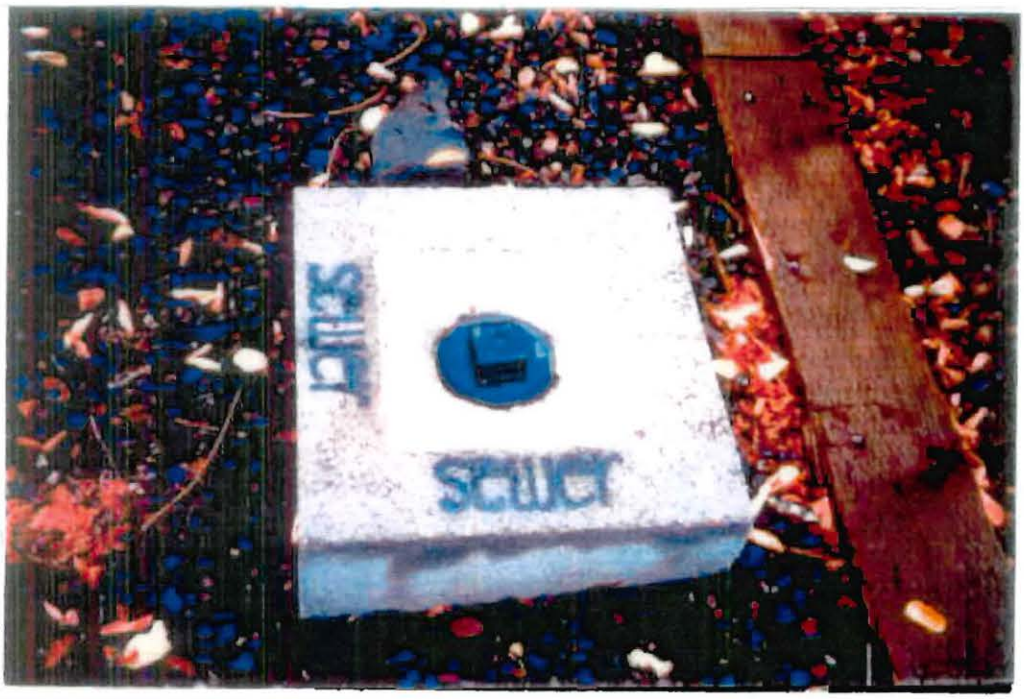
Region & Office: Pendleton Office, Eastern Region

Ex A(

075

Shiloh Inn - Troy Date 10-11-05

Sewer hookup - RV park by Ground Rounder H. Williams



Shiloh Inn - Troy Date 10-11-05

RV space hookups by Ground Rounder H. Williams

Ex A2 (8 pages)

Site: Shilo Inn - Troy — Date 10-11-01 Time 9:50 a.m.

Subject: RV spaces along Grand Ronde R. — Photographer H. Williams

Site: Shilo Inn - Troy — Date 10-11-01 Time 10 a.m.

Subject: Septic/dosing tank for RV spaces along Gr. Ronde R. — Photographer H. Williams

Shilo Inn - Troy — Date 10-11-05 Time 10 a.m.

RV spaces along Gr. Ronde R. — Photographer H. Williams

Shilo Inn - Troy — Date 10-11-05 Time 10 a.m.

RV spaces along Gr. Ronde R. — Photographer H. Williams

Location: Shilo Inn - Troy Date: 10-11-05 Time: 10:10 am

Comments: Alleged drainfield location. Photographer: H. Williams

Location: Shilo Inn - Troy Date: 10-11-05 Time: 10:20 am

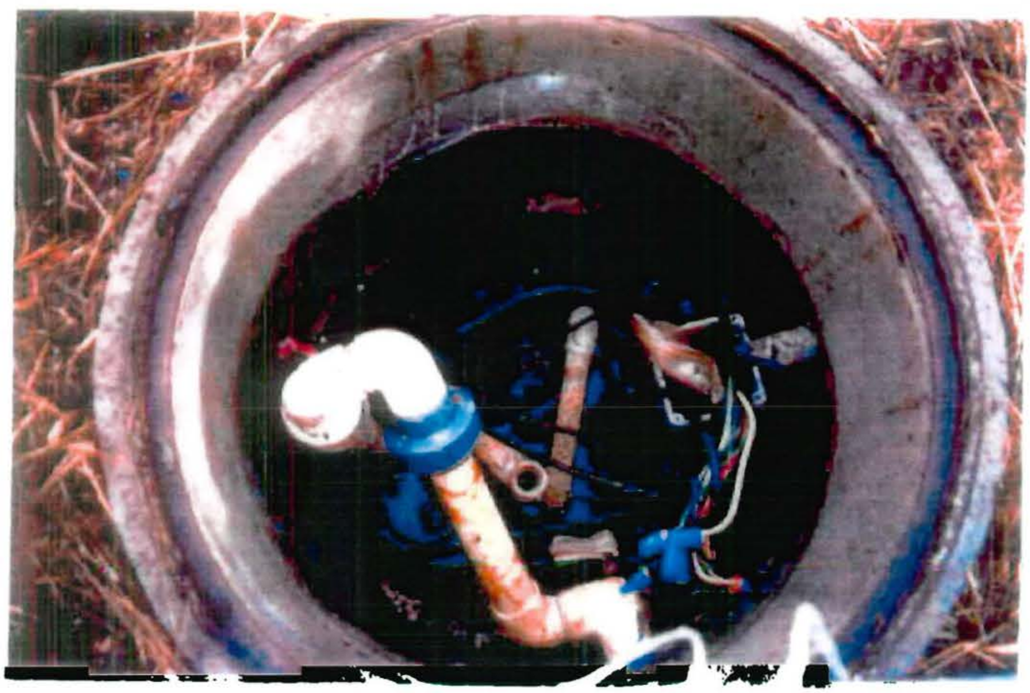
Comments: Alleged sprinkler on top of pres. drainfield system Photographer: H. Williams

Shilo Inn - Troy — Date 10-11-05 Time 1020 am

Valve box — Photographer Heidi Williams

Shilo Inn - Troy — Date 10-11-05 Time 1025 am

Dosing Tank for system along Dr. Ronde R. — Photographer H. Williams



Location: Shiloh Inn - Tray | Date: 10-11-05 Time: 1025 am

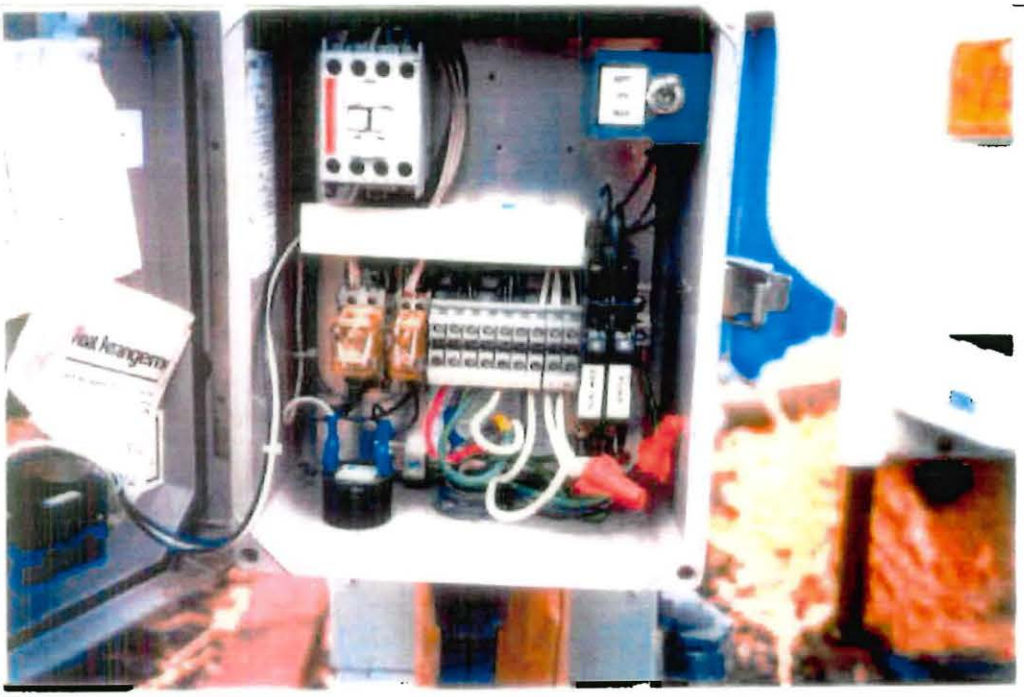
Comments: Tank in system along Gr. Ronde R. | Photographer: H. Williams

Location: Shiloh Inn - Tray | Date: 10-11-05 Time: 1025 am

Comments: Dosing Tank - Gr. Ronde System | Photographer: H. Williams

Location: Shilo Inn - Troy | Date: 10-11-07 | Time: 1030 am

Comments: Inside of control box - Br. Ronde sys't. | Photographer: H. Williams



Location: Shilo Inn - Troy | Date: 10-11-07 | Time: 1030 am

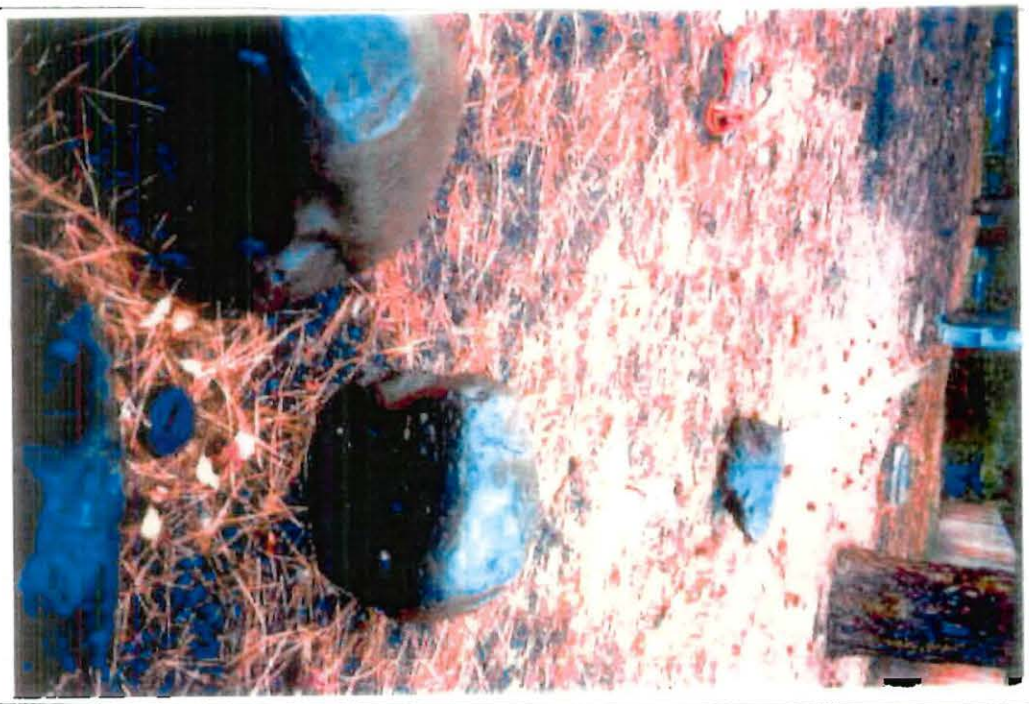
Comments: Dosing tank w/ pump on manual - Br. Ronde sys't. | Photographer: H. Williams

Shilo Inn - Troy | Date 10-11-07 | Time 10:__ am
Trailer/camper hooked up to sewer system [illegible] | Photographer H. Williams

Shilo Inn - Troy | Date 10-11-07 | Time 11:10 a.m.
Ground indentation by dosing tank on W.R. system | Photographer H. Williams

Subject: Shilo Inn - Troy Date: 10-11-05 Time: 1040 a.m.

Contents: RV hookup - space 1 - driver's side rear Photographer: H. Williams



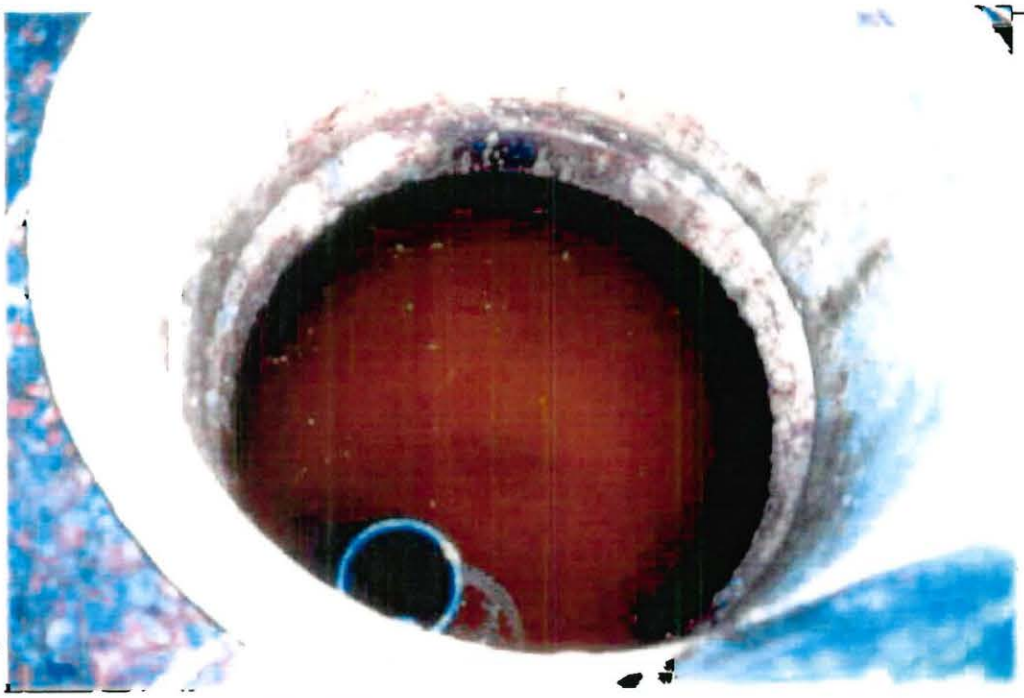
Subject: Shilo Inn - Troy Date: 10-11-05 Time: 1040 a.m.

Contents: Tank, hookup - space 1 - passenger side rear Photographer: H. Williams

Ex A3
(2 pages)

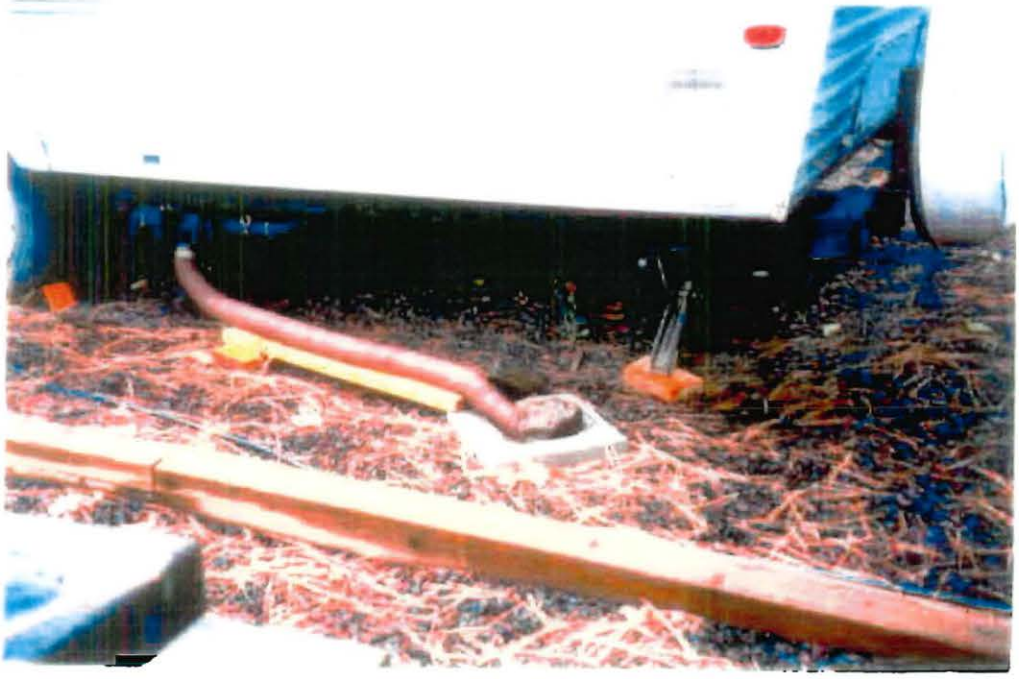
Location: Shiloh Lan - Troy | Date: 10-1-05 Time: 1040 a.m.

Comments: Tank - Wanaka R. system | Photographer:



Location: Shiloh Lan - Troy | Date: 10-1-05 Time: 1045 a.m.

Comments: Trailer hooked to sewer on Wanaka R. system. | Photographer: H. Williams



SHILO INNS
11600 SW SHILO LANE
PORTLAND, OR 97225-5995
WWW.SHILOINNS.COM

SHILO MANAGEMENT CORPORATION
TELEPHONE: 503-641-6565
FAX: 503-643-7261
TOLL FREE RESERVATIONS: 1-800-222-2244

TELECOPIER COVER SHEET

DATE: October 20, 2005 TIME: 4:43 PM

SENDER: John P. Kneeland, CEO & General Counsel

PLEASE DELIVER TO: Heidi Williams 1.541.278.0168

NUMBER OF PAGES IN TRANSMISSION 4 (including Cover Sheet)

Re: Wallowa County/Site ID #103546/WPCF Permit #102593

The original of the attached letter is being mailed to you.

Thank you,
John Kneeland

IF THERE ARE ANY QUESTIONS REGARDING THE MATERIAL RECEIVED, PLEASE CONTACT THE SENDER AT 503.641.6565.

Shilo INNS
Suites Hotels
"Affordable Excellence"

October 20, 2005

Ms. Heidi Williams
State of Oregon
Department of Environmental Quality
Eastern Region
700 S. E. Emigrant, Suite 330
Pendleton, Oregon 97801

RE: Pre-Enforcement Notice
Shilo Management Corporation
PEN-ERP-05-063
Site ID # 103546/WPCF Permit # 102593
WQ – Wallowa County

Dear Ms. Williams:

Thank you for your calls this week and for taking the time to discuss with Mark Hemstreet and me today the pending sanitation issues at the Shilo Lodge in Troy, Oregon. We discussed the two pending violation notifications in your letter of October 19th concerning the 20 RV spaces and 3 additional restrooms in the existing remodeled Lodge bathhouse building.

As Mr. Hemstreet emphasized, we certainly intend to cooperate with DEQ to resolve the two violations as soon as possible. Regrettably, we assumed that the ex-employee who was responsible for doing the work and installing the sanitation systems had obtained all the necessary permits.

Regarding Violation #1, we believe the two RV parking area on-site wastewater systems were installed correctly and, although not properly permitted in advance, present, to the best of our knowledge, no wastewater contamination problem. Our ex-employee told Mr. Hemstreet that he had found an existing drainfield system and had hooked the 13 RV sewer system on the Grande Ronde side into that drainfield. We have now just learned that in fact a new drainfield was constructed. We are informed by our tenants that that wastewater system appears to be working well and I understand your own observations disclosed no obvious problem with that system.

Shilo Management Corporation
11600 SW Shilo Lane
Portland, Oregon 97225-5995
Phone (503) 641-6565
www.shiloinns.com
Reservations 1 (800) 222-2244
Sales & Marketing Fax (503) 644-0868
General Fax (503) 643-7261

The wastewater system for the seven RV parking sites near the Wenaha River discharges into a 1,000 gallon holding tank, but there was not room for a drainfield. The tank is pumped periodically as needed and the waste hauled off, which is expensive for our tenants. As part of this new application process, we are going to request permission to pump the holding tank for the seven RV sites into the new holding tank for the other 13 RV sites and then into its new drainfield which appears to be working well. We believe that it is the best long-term solution for wastewater disposal for both sites.

Your October 19th letter directed the immediate cessation of use of the 20 RV wastewater hook- ups. Confirming our second telephone conversation this morning, you stated that we could continue to use the RV wastewater hookups pending resolution of this matter. As Mr. Hemstreet described, this is one of the few times during the year that these RV pads are utilized fully. It would cause great inconvenience to their guests, and economic hardship on our tenants, to require the guests to disconnect their RV's from this system. Since this problem appears to be more of a permitting situation rather than an actual contamination problem, we very much appreciate this accommodation.

Regarding Violation #2, the installation of 3 additional restrooms in the lodge, these are connected to the wastewater system that was installed by Mr. Hemstreet in about 1987. We believe that little if any additional burden is placed on that wastewater system as most of the usage of the three new restrooms, for which there is an outside entrance, is by hikers, river rafters, and fishermen. Unfortunately, the number of customers to the area is very dependent on the seasons, and the use of all of the facilities at Troy is not as much as we and our tenants wish they would be used .

We are in communication with the Troy Lodge tenants, Bill and Farrel Vail, to make sure they understand the importance of complying with your letter and working with you to resolve this situation as soon as possible. Rest assured that, by November 15, 2005, and hopefully sooner, we will have the proper applications filed. I received your email for the site from which the application can be obtained and we have downloaded the application and the instructions. We will dig the test holes, and prepare a site plan for the RV park wastewater systems, and a drawing of the lodge showing the new restrooms. We understand those actions are necessary before your site inspector, Diane Naglee, can do her evaluation. When Ms. Naglee does her evaluation, we will want one of Mr. Hemstreet's ranch forepersons, Ken or Beth Jones, to be present and I am sure Bill or Farrel Vail will try to be present as well.

As Mark Hemstreet described in our telephone conversation this morning, there was no functioning wastewater system when he acquired this property about 18 years ago. There was raw sewage running on the surface into the Grande Ronde River. Mr. Hemstreet spent a great deal of money to provide both new water and sanitation systems, to protect the environment, for most of the town. I believe you stated that you found the drawings done for Mr. Hemstreet in 1987 in connection with the wastewater systems that he installed about 18 years ago.

Thank you for your cooperation. We look forward to working with you and other members of the staff of the DEQ to resolve these matters as soon as possible.

Sincerely,

John P. Kneeland
CEO & General Counsel

cc: Bill & Farrel Vail – Troy Lodge tenants
Mark S. Hemstreet
Ken & Beth Jones

Oregon
Theodore R. Kulongoski, Governor

Department of Environmental Quality
Eastern Region
700 SE Emigrant
Suite 330
Pendleton, OR 97801
(541) 276-4063 Voice/TTY
FAX (541) 278-0168

October 19, 2005

Mr. John Kneeland
Shilo Management Corporation
11600 SW Shilo Ln
Portland, OR 97225-5919

RE: Pre-Enforcement Notice
Shilo Management Corporation
PEN - ERP-05-063
Site ID # 103546/WPCF Permit # 102593
WQ-Wallowa County

Dear Mr. Kneeland:

On October 6, 2005, the Department of Environmental Quality (Department) received a complaint (ERP-2005-0169) concerning the unpermitted installation of onsite wastewater systems (systems) for disposing of sewage from the new development of RV parking areas and the addition of bathrooms to the bathhouse at the Shilo Inn in Troy (the Facility).

On October 12, 2005, I inspected the Facility to determine the existence of the alleged systems and additions. I inspected the RV parking area and identified new RV hookups, a dosing tank, and a control box for the 13 spaces along the Grande Ronde River, and a new tank and hookups for the seven RV lots along the Wenaha River. Your current Water Pollution Control Facilities (WPCF) permit does not authorize discharge into RV on-site systems, other than a holding tank by the RV dump station. Therefore, you installed and are operating these RV on-site systems without a permit and without gaining approval from the Department.

I also noted new rooms added to the north side of the existing bathhouse. Although the rooms were locked, an employee verified that they were shower rooms. Again, you did not gain Department approval for these modifications and alterations, as your permit requires.

Based upon the inspection of your facility, the Department has concluded that Shilo Management Corporation is responsible for the following violations of Oregon environmental law:

VIOLATION 1:

Two RV parking area on-site wastewater systems were installed without prior authorization from the Department and are being operated without a permit. Oregon Revised Statutes (ORS) 468b.050(1)(b) and Schedule D Condition 3 of your WPCF permit require you to gain approval from the Department prior to installing and a permit prior to operating any disposal system. Violating a waste discharge permit condition is a

Ex A5

violation of Oregon Revised Statute (ORS) 468B.025(2) and is classified as a Class I violation under the Department's enforcement rules.

Corrective Actions Required:

The two unpermitted systems must be either abandoned or evaluated if they comply with Department rules. The evaluation process would determine if the two systems complied with Department rules, if they would comply with the rules with minor modifications to the systems, or that the systems are not appropriate for the locations and must be abandoned. The following requirements address these issues:

1. Immediately cease discharge of wastewater into both RV parking area on-site wastewater systems.
2. By **November 15, 2005,** submit a statement:
   i. that no wastewater is being discharged to the unpermitted RV wastewater systems and sewer hookups are being prevented; and
   ii. regarding the future use of both systems.
3. By **January 31, 2006,** either:
   i. apply for a site evaluation to determine if both systems comply with Department rules; or
   ii. abandon the two unpermitted wastewater systems in accordance with Department rules.

VIOLATION 2:

Three showers were installed in the bathhouse without prior authorization from the Department. Oregon Revised Statute (ORS) 468b.055 and Schedule D, Condition 3, of the Water Pollution Control Facilities (WPCF) permit requires plan approval by the Department prior to construction or modification of any wastewater control facility. Violating a waste discharge permit condition is a violation of Oregon Revised Statute (ORS) 468B.025(2) and is classified as a Class I violation under the Department's enforcement rules.

Corrective Actions Required:

1. By **November 15, 2005,** submit an evaluation of the existing on-site wastewater system that receives the wastewater to include the volume of wastewater from the three additional showers.
2. By **November 15, 2005,** submit as-built drawings for the changes to the laundry/shower building.
3. Include the additional showers in the request for modification of the WPCF permit that is required above.

Class I violations are considered to be the most serious violations; Class III violations are the least serious.

Your timely and responsive action on these items will be taken into consideration in any civil penalty assessment issued by the Department.

The violations cited above caused significant environmental harm or posed the risk of significant environmental harm and are being referred to the Department's Office of Compliance and Enforcement for formal enforcement action. Formal enforcement action may result in assessment of one or more civil penalties and/or a Department order. A formal enforcement action may include a civil penalty assessment for each day of violation.

The Department endeavors to assist you in your compliance efforts. Should you have any questions about the content of this letter or if you desire any follow-up technical assistance, please contact me at 541-278-4608.

Sincerely,

Heidi Williams

Heidi Williams, PE
Water Quality Engineer
Eastern Region

cc: Duane Smith/WQ Source File
Office of Compliance and Enforcement, DEQ Headquarters

INVESTIGATION DETAILS:

1. Responsible Party (include the legal name of the party):

Shilo Management Corporation; point of contact is John P. Kneeland

2. Description of the Triggering event(s) – (describe the events that resulted in the Department discovering the violations):

On October 6, 2005, the Department received a complaint regarding the installation of unpermitted sewage systems for the RV parking areas and the addition of bathrooms in the Lodge bathhouse. The complainant said that he installed the systems when he was an employee of the permittee. On October 10, 2005, I spoke with Bill Vail, who leases the facility, and asked if he was aware of the installation of the sewer systems. He thought that the sewage systems were installed about a year and a half ago.

3. Violations - (Identify the violations; the permit conditions, program rules, statutes or enforcement rules cited; the dates for which they were cited):

1. Discharging to unpermitted wastewater systems is in violation of ORS 468b.050(1)(b), 468b.025, and Schedule D Condition 3 of the WPCF permit. These systems have operated since August, 2003.
2. Installing the additional shower rooms is in violation of ORS 468b.055, 468b.025, and Schedule D Condition 3 of the WPCF permit. The shower rooms were installed in March, 2005.

4. Status of the violations (Are the violations on-going? How has the violator corrected the violations or minimized the impacts of the violations? From the date of the WL or PEN, how quickly did the violator act to correct or minimize the violations?) Explain.

The PEN was sent to the permittee on October 19, 2005. On October 20th, I received a call from John Kneeland and Mark Hemstreet regarding the compliance actions listed in the PEN. We discussed what needs to be done and what information to include in the required response letter. During the phone conversation they indicated that they wanted to make sure that they did everything necessary to comply with the corrective actions listed in the PEN. At the request of the permittee, I agreed to allow the continued discharge of effluent to the unpermitted systems. I am allowing discharge until completion of the onsite evaluation to determine the status of each system.

5. What information do you have about the past compliance history of the violator (e.g., past NONs, WLs, PENs, verbal warnings, other correspondence, phone conversations, interaction with another government entity (such as a county regulator, OSHA, DHHS), other program violations)?

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In 1995, Shilo Inn received an NON for not submitting monitoring reports.
In 2001, Shilo Inn received an NON for failing to submit monitoring reports.

6. If not described above, how long did each violation continue (i.e., provide the number of days of violation and an explanation of how you derived this number from observations,

documentation and reasonable inference.)? If the violation was not continuous, but repeated over time, please provide the number of days of occurrence and an explanation of how you derived this number from observations, documentation and reasonable inference.

The RV sewage systems were installed by August 2003, and have been operating since. The shower rooms were installed by March 2005 and have been operating since.

7. What else do you know about this violator? For example, how long has the company or the responsible employees been in business? Do you know whether the company or its employees have prior experience with this area of environmental regulation (has it had or does it have any relevant permits or licenses)? What other information do you have that might show that the company, the individual or employees should have known that they should not have caused the actions leading to the violation or that the actions would be illegal (e.g., prior experience related to the regulated industry or activity that is the core of this violation)?

Shilo Inn in Troy has been permitted since December 28, 1988. The permittee should be familiar with the rules related to the installation and operation of onsite wastewater treatment systems. Had permit for 17 years and should be familiar with its requirements.

8. Describe the amounts of the materials involved; toxicity of the materials; duration of the violation(s); emissions quantity; impacts to people, the environment, property, or wildlife; etc.

According to Division 71 rules design criteria, each RV space is expected to contribute about 100 gallons per day to the system, totaling 1,300 gallons per day for the Grande Ronde system and 700 gallons per day for the Wenaha system. Depending on the surrounding soils, the effluent from the Grande Ronde system may reach the river due to the close proximity of the drainfield to the river.
The RV park wastewater systems were installed and began operating by August 2003.
The Lodge bathhouse exterior shower rooms were installed in March of 2005 and have been operating since.
Impacts to the locale are unknown.

9. What specific economic benefit(s) did the violator gain by being in non-compliance? (Refer to the Economic Benefit Policy for guidance.)

Site evaluation fee (2003): $685
Plan review fee (2003): $330
Permit modification fee (2003): $600
Filing fee (2003): $60
The permitting costs would have totaled $1,675 in 2003 to accommodate the two additional RV park sewage systems. Since they would have been addressed at the same time, fees were calculated as such.

10. Additional factual information not available elsewhere:

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

FAX Transmittal Memorandum

No. of Pages: 13
Date: March 29, 2006

To:	Bryan Smith	**From:**	Dave LeBrun
Phone:	541 388-6146	**Phone:**	503-229-6742
FAX:	541 388-8283	**FAX:**	503-229-6762

Message: **Attached are the EB calculations for Shilo and FPCK. Thank you, Dave LeBrun.**

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State of Oregon
Department of Environmental Quality **Memorandum**

Date: March 29, 2006
To: File
From: Dave LeBrun, Environmental Law Specialist, Office of Compliance and Enforcement
Subject: Ben calculation for Shilo Management Corporation.

General Purpose and Authority

The economic benefit portion of the civil penalty formula is simply the monetary benefit that an entity gained by not complying with the law. It is designed to "level the playing field" by taking away any economic advantage the entity gained and to deter potential violators from deciding it is cheaper to violate and pay the penalty than to pay the costs of compliance.

Oregon Revised Statute 468.130(2)(c,h) directs the Environmental Quality Commission to consider economic conditions of the entity in assessing a penalty as well as other factors that Commission makes relevant by rule. Accordingly, the Commission specified in Oregon Administrative Rule (OAR) 340-012-0045(1)(c)(F) that the penalty will contain the appropriate economic benefit (EB) as determined by OAR 340-012-0150(2). The Commission specified in OAR 340-012-0150(1) that the EB is the "approximate dollar value of the benefit gained and the costs avoided or delayed (without duplication) as a result of the respondent's noncompliance." That rule also specifies that, "[i]n determining the economic benefit component of a civil penalty, the Department may use the U.S. Environmental Protection Agency's BEN computer model . . ." and must use it on request of a respondent.

Theory of Economic Benefit

Compliance with environmental regulations may require an entity to expend financial resources. These expenditures support the public goal of better environmental quality, but often do not yield direct financial return to the entity. "Economic benefit" represents the financial gain that a violating entity accrues by delaying and/or avoiding such expenditures. Funds not spent on environmental compliance are available for other profit-making activities or, alternatively, the entity avoids the costs associated with obtaining additional funds for environmental compliance (opportunity cost). Economic benefit is the amount by which an entity is financially better off from not having complied with environmental requirements in a timely manner.

Economic benefit is "no fault" in nature. An entity need not have deliberately chosen to delay compliance (for financial or any other reasons), or in fact even have been aware of its noncompliance, for it to have accrued the economic benefit of noncompliance.

An appropriate economic benefit calculation represents the amount of money that would make the entity indifferent between compliance and noncompliance. If DEQ does not recover, through a civil penalty, at least this economic benefit, then the entity will retain a gain. Because of the precedent of this retained gain, other regulated companies may see an economic advantage in similar noncompliance, and the penalty will fail to deter potential violators. Economic benefit is designed to be neither punitive nor tort damage, but instead is the minimum amount by which the entity must be penalized so as to return it to the position it would have been in had it complied on time.

Basis of the Costs Considered

Shilo Management Corporation should have spent $1,675 for fees associated with obtaining a permit for two onsite systems ($685 for a site evaluation fee, $330 for a plan review, $600 for a permit modification fee, and $60 for a filing fee). The company paid the site evaluation fee on November 9, 2005. By delaying the site evaluation fee the company gained and economic benefit of **$31**.

By avoiding the remaining costs since September 1, 2003, the company has gained an economic benefit of **$675**.

The company's total economic benefit associated with delaying and avoiding fees for its onsite systems is **$706.**

Applicability of Standard Rates Presumed by Rule

The BEN model relies on income tax rates, inflation rates, and discount rates. The model allows the operator to input particular rates, but in the absence of operator input, the BEN model uses standard values based on the entity's corporate status, whether it acted for profit, and the state where the violations occurred. It calculates inflation rates from the Plant Cost Index (PCI) published by the magazine *Chemical Engineering* and from the Consumer Price Index. Alternative inflation indices include:

Abbreviation and Full Name		Description	Typical Applications
2.5 %	Constant rate of 2.5%	Assumes annual inflation rate is constant at 2.5 percent.	
CCI	Construction Cost Index	Construction costs (based on 1.128 tons Portland cement, 1,088 bd. ft. 2x4 lumber) and 200 common labor.	General construction costs, especially where labor costs are a high proportion of total costs.

ECI	Employment Cost Index	Total civilian compensation for all workers, seasonally adjusted.	One-time nondepreciable expenditures or annual costs that comprise mainly labor.
GDP	Gross Domestic Product Implicit Price Deflator	Measured by U.S. Commerce Department through the Bureau of Economic Analysis. Equals GDP in current dollars divided by GDP in constant dollars.	general expenses that affect multiple sectors of the economy (e.g., labor and construction).
PCI	Plant Cost Index	Plant cost index published by *Chemical Engineering*.	Standard default and for plant equipment costs.
PPI	Producer Price Index for Finished Goods	Reflects the price level for processing finished goods.	Processing finished goods, general expenses that affect multiple sectors of the economy (e.g., labor and construction).

Pursuant to OAR 340-012-0045(1)(c)(F)(iii), the "model's standard values for income tax rates, inflation rate and discount rate shall be presumed to apply to all Respondents unless a specific Respondent can demonstrate that the standard value does not reflect the Respondent's actual circumstance."

Description of the Attached Run

BEN calculates the economic benefits gained from delaying and avoiding required environmental expenditures. Such expenditures can include: (1) capital investments (*e.g.*, larger pollution control or monitoring equipment, costs of design and installation), (2) one-time nondepreciable expenditures (*e.g.*, permit fees, clean-up costs, setting up a reporting system, acquiring land needed for a capital improvement), (3) annually recurring costs (*e.g.*, routine operating and maintenance costs, utilities). Each of these expenditures can be either delayed or avoided. BEN's baseline assumption is that capital investments and one-time nondepreciable expenditures are merely delayed over the period of noncompliance, whereas annual costs are avoided entirely over this period.

The calculation incorporates the economic concept of the "time value of money." Stated simply, a dollar today is worth more than a dollar tomorrow, because you can invest today's dollar to start earning a return immediately. Thus, the further in the future the dollar is, the less it is worth in "present-value" terms. Similarly, the greater the time value of money (*i.e.*, the greater the "discount" or "compound" rate used to derive the present value), the lower the present value of future costs. To calculate an entity's economic benefit, BEN uses standard financial cash flow and net-present-value analysis techniques based on modern and generally

accepted financial principles, which were subjected to extensive national notice-and-comment processes.[1]

Inputs to the model include costs specific to the situation of the entity as well as the presumed standard indexes and rates described in the section above. These values are listed in the lower three-quarters of the table. Using these values, BEN makes a series of calculations listed at the top of the table as follows:

A) On-Time Capital & One-Time Costs. What compliance would have cost had the entity complied on-time, adjusted for inflation and tax deductibility. The number is a present value as of the date of initial noncompliance. BEN derives this value by discounting the annual cash flows at an average of the cost of capital throughout this time period.
B) Delay Capital & One Time Costs. What late compliance did cost, adjusted for inflation and tax deductibility. The number is a present value as of the date of initial noncompliance. BEN derives this value by discounting the annual cash flows at an average of the cost of capital throughout this time period. This value will be zero if the costs were avoided.
C) Avoided Annually Recurring Costs. This sum is a present value as of the date of initial noncompliance. BEN derives this value by discounting the annual cash flows at an average of the cost of capital throughout this time period.
D) Initial Economic Benefit (A – B+C). The delayed-case present value is subtracted from the on-time-case present value plus the sum of the avoided costs to determine the initial economic benefit as of the noncompliance date.
E) Final Economic Benefit at Penalty Payment Date. BEN compounds the initial economic benefit forward to the penalty payment date at the same cost of capital to determine the final economic benefit of noncompliance.

Calculated Economic Benefit Likely an Underestimate

[1] *See* Calculation of the Economic Benefit of Noncompliance in EPA's Civil Penalty Enforcement Cases, Request for comment, 61 Fed. Reg. 53025-53030 (Oct. 9, 1996); Calculation of the Economic Benefit of Noncompliance in EPA's Civil Penalty Enforcement Cases, Extension of time for request for comment, 61 Fed. Reg. 65391 (Dec. 12, 1996); Calculation of the Economic Benefit of Noncompliance in EPA's Civil Penalty Enforcement Cases, Advance notice of proposed action, response to comment, and request for additional comment, 64 Fed. Reg. 32947-32972 (June 18, 1999); Calculation of the Economic Benefit of Noncompliance in EPA's Civil Penalty Enforcement Cases, Advance notice of proposed action, response to comment, and request for additional comment, 64 Fed. Reg. 39135-39136 (July 21, 1999).

The economic benefit calculated above may underestimate the total economic benefit that the respondent received to date because it does not address uncertain indirect financial benefits, including:

- *Advantage-of-risk* – the value of (1) the risk of never getting caught and (2) keeping future options open by delaying a decision to institute a process or purchase capital.
- *Competitive advantage* – (1) beginning production earlier than would be possible if in compliance; (2) attracting clients by avoiding compliance costs, having a higher profit margin and therefore being able to offer goods or services at a lower cost than competitors; (3) keeping those clients attracted by lower prices because of brand loyalty or high switching costs; or (4) using the time or money saved to increase production.
- *Illegal profits* – selling illegal products or services.

However, I consider these other economic benefits to be "de minimis" in light of the difficulties in calculation. Pursuant to OAR 340-012-0045(1)(c)(F)(ii), the Department need not calculate an economic benefit if that benefit is de minimis.

Run Name =	permit fees
Present Values as of Noncompliance Date (NCD)	01-Sep-2003
A) On-Time Capital & One-Time Costs	$542
B) Delay Capital & One-Time Costs	$0
C) Avoided Annually Recurring Costs	$0
D) Initial Economic Benefit (A-B+C)	$542
E) Final Econ. Ben. at Penalty Payment Date,	
15-Jun-2006	**$675**
C-Corporation w/ OR tax rates	
Discount/Compound Rate	8.2%
Discount/Compound Rate Calculated By:	BEN
Compliance Date	15-Jun-2006
Capital Investment:	
Cost Estimate	$0
Cost Estimate Date	N/A
Cost Index for Inflation	N/A
Consider Future Replacement (Useful Life)	N/A (N/A)
One-Time, Nondepreciable Expenditure:	avoided
Cost Estimate	$990
Cost Estimate Date	21-Oct-2005
Cost Index for Inflation	CCI
Tax Deductible?	Y
Annually Recurring Costs:	
Cost Estimate	$0
Cost Estimate Date	N/A
Cost Index for Inflation	N/A
User-Customized Specific Cost Estimates:	N/A
On-Time Capital Investment	
Delay Capital Investment	
On-Time Nondepreciable Expenditure	
Delay Nondepreciable Expenditure	

Run Name =	Site evaluation
Present Values as of Noncompliance Date (NCD),	01-Sep-2003
A) On-Time Capital & One-Time Costs	$375
B) Delay Capital & One-Time Costs	$350
C) Avoided Annually Recurring Costs	$0
D) Initial Economic Benefit (A-B+C)	$25
E) Final Econ. Ben. at Penalty Payment Date, *15-Jun-2006*	**$31**
C-Corporation w/ OR tax rates	
Discount/Compound Rate	8.2%
Discount/Compound Rate Calculated By:	BEN
Compliance Date	09-Nov-2005
Capital Investment:	
Cost Estimate	$0
Cost Estimate Date	N/A
Cost Index for Inflation	N/A
Consider Future Replacement (Useful Life)	N/A (N/A)
One-Time, Nondepreciable Expenditure:	
Cost Estimate	$685
Cost Estimate Date	21-Oct-2005
Cost Index for Inflation	CCI
Tax Deductible?	Y
Annually Recurring Costs:	
Cost Estimate	$0
Cost Estimate Date	N/A
Cost Index for Inflation	N/A
User-Customized Specific Cost Estimates:	N/A
On-Time Capital Investment	
Delay Capital Investment	
On-Time Nondepreciable Expenditure	
Delay Nondepreciable Expenditure	

Shiloh Inn - Troy — Date 10-11-05 — Time 11 a.m.

Exterior shower/restroom recently installed — Photographer H. Williams

Shiloh Inn - Troy — Date 10-11-05 — Time 11 a.m.

Exterior restroom (1 of 2) — Photographer H. Williams

Ex A8

Shilo Inn - Troy
Exterior restroom (2 of 2)

Date 10-11-05 Time 11 a.m.
Photographer H. Williams

Shilo Inn - Troy
Recently added shower room on N. side.

Date 10-11-05 Time 11 a.m.
Photographer H. Williams

Post-it® Fax Note 7671	Date 2-24-06	# of pages ▶ 8
To Bryan Smith	From Heidi Williams	
Co./Dept.	Co.	
Phone #	Phone #	
Fax #	Fax #	

Permit Number: 102593
Expiration Date: December 31, 2009
File Number: 103546

WATER POLLUTION CONTROL FACILITIES PERMIT

Department of Environmental Quality
700 SE Emigrant, Suite 330, Pendleton, OR 97801
Telephone: (541) 276-4063

Issued pursuant to ORS 468B.050

ISSUED TO:

Shilo Management Corporation
11600 SW Shilo Lane
Portland, OR 97225

SOURCES COVERED BY THIS PERMIT:

Type of Waste	Method of Disposal
Domestic Wastewater	Septic Tanks and Drainfields (UIC Class V Well)
RV Septage	Holding Tank with Off-Site Disposal

PLANT TYPE AND LOCATION:

Septic Tanks and Disposal Fields
Located at the confluence of the Wenaha and Grande Ronde Rivers in Troy, OR.

Facility mailing address:
84570 Bartlett Road
Enterprise, OR 97828

RIVER BASIN INFORMATION:

Major Basin: Grande Ronde
Sub-Basin: Lower Grande Ronde

Hydro Code: 31=-GRAN 46.0A
County: Wallowa
Nearest Surface Stream which would receive waste if facility were to discharge: Grande Ronde River

Issued in response to Application No. 988375 received December 18, 2000.
This permit is issued based on the land use findings in the permit record.

Barbara D. Sellars,
Water Quality Manager
Eastern Region

September 11, 2002
Date

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 disposal system in conformance with all the requirements, limitations, and conditions set forth in the attached schedules as follows:

Ex. A9

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 discharge to an underground injection control system.

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SCHEDULE A

Waste Disposal Limitations

The permittee is authorized to operate and maintain a sewage treatment and disposal system in accordance with the following conditions:

1. The treatment and disposal system will serve only the domestic wastewater and RV septage needs of the Shilo Inn – Troy, complex. The system consists of five on-site systems and a holding tank for RV waste. The store, restaurant, three guest cabins, and a trailer are each connected to a septic tank and drainfield. Cabin 5 and the trailer connect to a common septic tank, a dosing tank and pressurized drainfield.

2. The common septic tank must be operated in a manner which will prevent a violation of the Department's groundwater quality protection rules, Oregon Administrative Rule (OAR) 340-040.

3. No direct discharge to waters of the State is permitted. All wastewater, except that in the holding tank, shall be distributed into on-site sewage disposal fields for dissipation by subsurface soil absorption so as to prevent:

   a. Surfacing of wastewater on the ground surface;
   b. Surface runoff or subsurface drainage through drainage tile;
   c. The creation of odors, fly and mosquito breeding or other nuisance conditions;
   d. The overloading of land with nutrients or organics; and
   e. An adverse impact on existing or potential beneficial uses of groundwater.

4. Prior to connecting any additional sources to the sewage treatment and disposal facility, the permittee shall:

   a. Submit to the Department an approved Land Use Compatibility Statement;
   b. Submit to the Department plans detailing the sewage collection system for the additional sources; and
   c. Obtain written Department approval for the additional connections.

5. No cooling water, air conditioner water, water softener brine, groundwater, oil, hazardous materials, roof drainage, storm water runoff, or other aqueous or non-aqueous substances which are, in the judgment of the Department, detrimental to the performance of the system or to groundwater, shall be discharged into the wastewater treatment system, unless specifically approved in writing by the Department.

6. Unless approved otherwise in writing by the Department, a natural vegetative cover, preferably with plants indigenous to the area, shall be maintained on the land disposal area at all times to ensure maximum infiltration and evapotranspiration rates during the disposal season.

7. Upon approval, all septage management and disposal activities shall be conducted in accordance with the Department approved management and disposal plan. No changes in the approved management and disposal plan shall be made without written approval from the Department.

SCHEDULE B

1. Minimum Monitoring Requirements

The permittee shall monitor the operation and efficiency of all treatment and disposal facilities. Unless otherwise agreed to in writing by the Department of Environmental Quality, data collected and inspection records shall be submitted to the Department and shall include, but not necessarily be limited to, the following parameters and minimum frequencies:

a. Septic Systems:

Item or Parameter	Minimum Frequency	Action Required
Test pump and alarm at dosing tank	Quarterly	Log entry of action
Inspect pump screens	Quarterly	Log entry of inspection
Inspect drainfield areas	Twice annually	Log entry of inspection
Inspect and pump septic tanks	Every 3 years	Log entry of action
Inspect and pump dosing tank	Every 3 years	Log entry of action

b. Dump Station Holding Tank:

Item or Parameter	Minimum Frequency	Action Required
Test alarm	Each tank pumping or quarterly, whichever is more frequent	Log entry of action
Inspect tank integrity, including inlet and outlet	Each tank pumping	Log entry of action
Record pumping date and quantity pumped (gallons)	Each tank pumping	Log entry of action

2. Reporting Procedures

Monitoring results shall be submitted quarterly on approved forms to the Department's Pendleton office. Reports must be submitted by the 15th day of following month (April 15, July 15, Oct. 15, and Jan. 15).

SCHEDULE D

Special Conditions

1. The permittee shall keep the areas proposed for replacement systems free from disturbance, vehicular traffic, parking, buildings, storage, and concentrated livestock.

2. If any of the existing non-pressurized disposal systems fail, they shall be replaced with new treatment and disposal facilities meeting current design standards.

3. Prior to construction or modification of any wastewater control facility, the Department shall approve all detailed plans and specifications in writing. After approval of the plans, all construction shall be in strict conformance with the plans unless otherwise approved in writing by the Department.

4. The permittee shall, during all times of disposal, provide qualified personnel to assure the continuous performance of the disposal system within the limitations of this permit.

5. The permittee will not be required to perform a formal hydrogeologic characterization or preliminary groundwater monitoring during the term of this permit provided:

   (a) The facilities are operated in accordance with the permit conditions; and,
   (b) There are no apparent adverse groundwater quality impacts (complaints or other indirect evidence) resulting from the facility's operation.

   If warranted, the Department may evaluate the need for a full assessment of the facilities impact on groundwater quality.

6. All septage/sludge shall be managed by a licensed sewage disposal service as defined in Oregon Administrative Rule 340-071-0100(133).

7. An adequate contingency plan for prevention and handling of spills and unplanned discharges shall be in force at all times. The permittee shall immediately notify the DEQ Pendleton office (541-278-4063) of any system malfunction so corrective action can be coordinated between the permittee and the Department.

8. The Department may reopen the Schedules in this permit, if necessary, to include new or revised conditions.

SCHEDULE F

General Conditions

SECTION A. STANDARD CONDITIONS

1. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State, or local laws, or regulations.

2. Liability

The Department of Environmental Quality, its officers, agents, or employees shall not sustain any liability on account of the issuance of this permit or on account of the construction or maintenance of facilities because of this permit.

3. Permit Actions

After notice by the Department, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including but not limited to the following:

a. Violation of any term or condition of this permit, any applicable rule or statute, or any order of the Commission;

b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts.

4. Transfer of Permit

This permit shall not be transferred to a third party without prior written approval from the Department. Such approval may be granted by the Department where the transferee acquires a property interest in the permitted activity and agrees in writing to fully comply with all the terms and conditions of this permit and the rules of the Commission. A transfer application and filing fee must be submitted to the Department.

5. Permit Fees

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.

SECTION B. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. Proper Operation and Maintenance

The permittee shall at all times maintain in good working order and properly operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit.

2. Standard Operation and Maintenance

All waste collection, control, treatment, and disposal facilities shall be operated in a manner consistent with the following:

a. At all times, all facilities shall be operated as efficiently as possible and in a manner which will prevent discharges, health hazards, and nuisance conditions.

b. All screenings, grit, and sludge shall be disposed of in a manner approved by the Department such as to prevent any pollutant from such materials from reaching any waters of the state, creating a public health hazard, or causing a nuisance condition.

c. Bypassing of untreated waste is generally prohibited. No bypassing shall occur without prior written permission from the Department except where unavoidable to prevent loss of life, personal injury, or severe property damage.

3. Noncompliance and Notification Procedures

In the event the permittee is unable to comply with all the conditions of this permit because of surfacing sewage, a breakdown of equipment or facilities, an accident caused by human error or negligence, or any other cause such as an act of nature, the permittee shall:

a. Immediately take action to stop, contain, and clean up the unauthorized discharges and correct the problem.

b. Immediately notify the Department's Regional office, so that an investigation can be made to evaluate the impact and the corrective actions taken and determine additional action that must be taken.

c. Within 5 days of the time the permittee becomes aware of the circumstances, the permittee shall submit to the Department a detailed written report describing the breakdown, the actual quantity and quality of resulting waste discharges, corrective action taken, steps taken to prevent a recurrence, and any other pertinent information.

Compliance with these requirements does not relieve the permittee from responsibility to maintain continuous compliance with the conditions of this permit or the resulting liability for failure to comply.

4. Wastewater System Personnel

The permittee shall provide an adequate operating staff which is duly qualified to carry out the operation, maintenance, and monitoring requirements to assure continuous compliance with the conditions of this permit.

SECTION C. MONITORING AND RECORDS

1. Inspection and Entry

The permittee shall, at all reasonable times, allow authorized representatives of the Department of Environmental Quality to:

a. Enter upon the permittee's premises where a waste source or disposal system is located or where any records are required to be kept under the terms and conditions of this permit;

b. Have access to and copy any records required to be kept under the terms and conditions of this permit;

c. Inspect any treatment or disposal system, practices, operations, monitoring equipment, or monitoring method regulated or required by this permit; or

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.

2. 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 the permit.

3. Monitoring Procedures

Monitoring must be conducted according to test procedures specified in the most recent edition of **Standard Methods for the Examination of Water and Wastewater**, unless other test procedures have been approved in writing by the Department and specified in this permit.

4. Retention of Records

The permittee shall retain records of all monitoring and maintenance information, including all calibrations, 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. The Director may extend this period at any time.

SECTION D. REPORTING REQUIREMENTS

1. Plan Submittal

Pursuant to Oregon Revised Statute 468B.055, unless specifically exempted by rule, no construction, installation or modification of disposal systems, treatment works, or sewerage systems shall be commenced until plans and specifications are submitted to and approved in writing by the Department. All construction, installation or modification shall be in strict conformance with the Department's written approval of the plans.

2. Change in Discharge

Whenever a facility expansion, production increase, or process modification is anticipated which will result in a change in the character of pollutants to be discharged or which will result in a new or increased discharge that will exceed the conditions of this permit, a new application must be submitted together with the necessary reports, plans, and specifications for the proposed changes. No change shall be made until plans have been approved and a new permit or permit modification has been issued.

3. Signatory Requirements

All applications, reports or information submitted to the Department shall be signed and certified by the official applicant of record (owner) or authorized designee.

SECTION E. DEFINITIONS

1. BOD_5 means five-day biochemical oxygen demand.
2. TSS means total suspended solids.
3. FC means fecal coliform bacteria.
4. NH_3-N means Ammonia Nitrogen.
5. NO_3-N means Nitrate Nitrogen.
6. NO_2-N means Nitrite Nitrogen.
7. TKN means Total Kjeldahl Nitrogen.
8. Cl means Chloride.
9. TN means Total Nitrogen.
10. mg/L means milligrams per liter.
11. ug/L means micrograms per liter.
12. kg means kilograms.
13. GPD means gallons per day.
14. MGD means million gallons per day.
15. The term "bacteria" includes but is not limited to fecal coliform bacteria, total coliform bacteria, and E. coli bacteria.
16. Total residual chlorine means combined chlorine forms plus free residual chlorine.
17. Grab sample means an individual discrete sample collected over a period of time not to exceed 15 minutes.
18. Composite sample means a combination of samples collected, generally at equal intervals over a 24-hour period, and apportioned according to the volume of flow at the time of sampling.
19. Week means a calendar week of Sunday through Saturday.
20. Month means a calendar month.
21. Quarter means January through March, April through June, July through September, or October through December.

Shilo INNS
Suites Hotels
"Affordable Excellence"

November 7, 2005

VIA FEDERAL EXPRESS

Ms. Heidi Williams
State of Oregon
Department of Environmental Quality
Eastern Region
700 S. E. Emigrant, Suite 330
Pendleton, Oregon 97801

RE: Pre-Enforcement Notice
Shilo Management Corporation
PEN-ERP-05-063
Site ID # 103546/WPCF Permit # 102593
WQ – Wallowa County

Dear Ms. Williams:

Enclosed is the application for the site evaluation(s) for the sanitation systems to service the RV pads at Troy, Oregon. A check payable to the DEQ for $685 for the application fee is enclosed. When we spoke today, you were not certain of the fee. If the amount tendered is insufficient, we will send additional funds when the correct amount is calculated.

Per our telephone conversation of November 7th, I understand that no additional information is needed with respect to the three new shower units in the bathhouse.

With respect to the application for a DEQ permit for the sanitation system for the 7 RV pads near the Wenaha River, and the 13 RV pads near the Grande Ronde River, it is my understanding they can be submitted under one application on one drawing. Enclosed are two copies of the drawing.

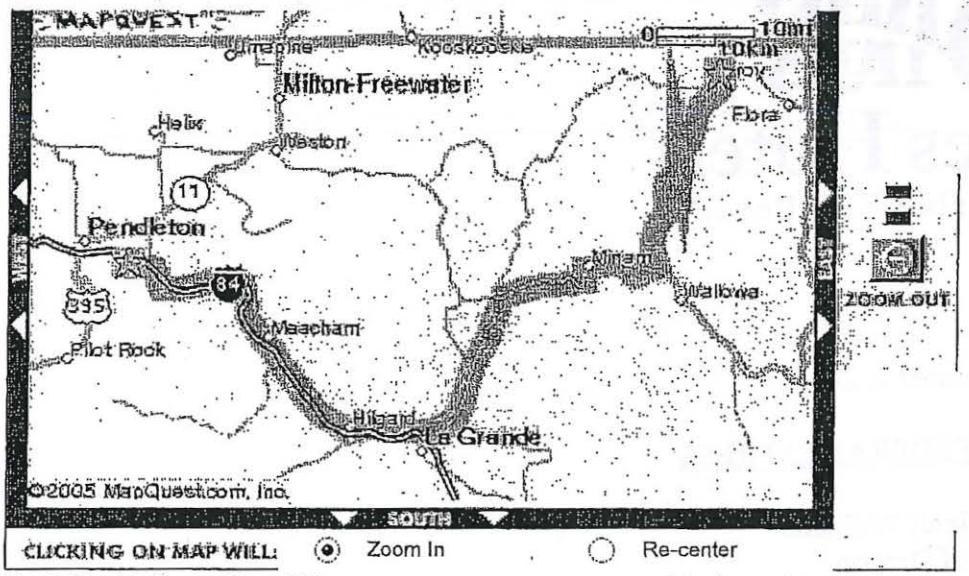
Ex. A10

With respect to the sanitation system for the 7 RV pads near the Wenaha River, the existing holding tank into which sewage is now being pumped is shown in yellow and orange at the left bottom of the drawing. We propose to install a pump and the necessary pipe (shown in orange) to pump the sewage approximately 380 feet to the existing septic tank and drainfield lying immediately north of the bathhouse (the bathhouse is identified as the "Shilo Store" on the

RECEIVED
NOV 09 2005
State of Oregon

113

Site Locator Map

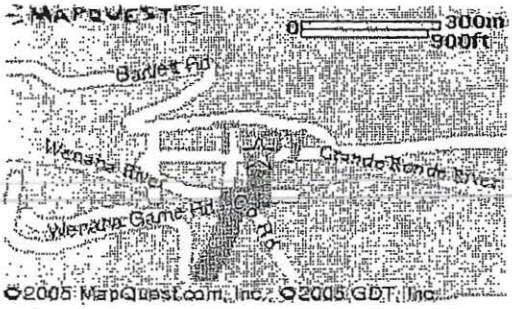


CLICKING ON MAP WILL: (•) Zoom In ( ) Re-center

Use Subject to License/Copyright Map Legend

TO:

Troy, OR US



PRINT DOWNLOAD TO HANDHELD E-MAIL TO A FRIEND

FROM: **PENDLETON, OR 97801 US**

TO: **Troy, OR US**

Re-display Directions with:

(•) Overview Map with Text ( ) Text Only ( ) Turn-by-Turn Maps with Text

11

drawing). This existing drainfield has approximately 400-500 feet of drain lines and is very adequate to handle the very small amount of increased use from the RV pads. The use of all of the RV pads at Troy is very seasonal, with almost all of their use coming during the Steelhead fishing season and hunting season. Alternatively, if the pumping to the septic system near the bathhouse is not acceptable, we propose to pump the sewage from the 7 RV pads a total of approximately 700 feet to the new holding tank built to service the 13 RV pads near the Grande Ronde River. (The additional pipe to take the line clear to the other holding tank is shown in blue on the drawing.)

The new holding tank and drainfield recently constructed to serve the 13 RV pads near the Grande Ronde River is shown in yellow. The new drainfield has in excess of 700 feet of drain lines. It is presently functioning well and is more than adequate to service all 20 RV pads. As noted above, the RV pads are only used seasonally. As is shown on the drawing, the holding tank is approximately 90 feet from the bank of the Grande Ronde River, and the nearest point of the drainfield is more than 100 feet from the river.

As will be seen from a review of the drawings submitted, the new information has been added to a drawing originally prepared in 1987 in connection with a prior DEQ application. The "bottomless sand filter system" shown in the NE corner of the original drawing was never constructed, and none of the proposed piping or tanks for the bottomless sand filter system was ever installed.

We are aware that the application process requires that test pits be dug. We did not dig test pits at this time as this is the height of hunting season, and we were concerned that the pits might be a safety hazard to guests of the RV park. We are prepared to dig the pits in advance of the inspector's visit so that the pits will be available for observation when the inspector arrives. We would appreciate it if the inspector would inform us where would be the best locations for the pits so that the inspector obtains the needed information.

If there are questions or additional information is needed, please so inform me, and I will try to obtain answers to the questions and the needed information as soon as possible.

Sincerely,

John P. Kneeland
CEO & General Counsel
Encs.
cc: Bill & Farrel Vail – Troy Lodge tenants
Mark S. Hemstreet
David Steiner
Ken & Beth Jones

Oregon
Theodore R. Kulongoski, Governor

Department of Environmental Quality
Eastern Region
700 SE Emigrant
Suite 330
Pendleton, OR 97801
(541) 276-4063 Voice/TTY
FAX (541) 278-0168

June 27, 2006

RECEIVED
JUL 03 2006
Eastern Region - Bend

Shilo Management Corporation
C/O Phillip Harris
11600 S.W. Shilo Lane
Portland, OR 97225

RE: Site Evaluation Report
Troy Lodge, LLC
T05N –R43E –S4BA: Tax Lots 2900 & 3500-3900
Wallowa County

Dear Mr. Harris:

On June 7, 2006 I evaluated six test holes and the existing unpermitted On-Site Wastewater Treatment (septic) Systems at the above referenced properties. The evaluation was conducted to determine if the unpermitted septic systems could be approved for connection to the existing 20 Recreational Vehicle (RV) spaces. Seven of the RV spaces are located near the Wenaha River and are currently connected to a "holding tank". Thirteen of the RV spaces are located near the Grande Ronde River and were connected to a dosing septic tank and pressurized distribution system.

The following system components and site conditions were observed on the date of inspection:

Area of 7 RV Spaces

On the date of my inspection, the 7 RV spaces were connected to an unpermitted 1,000 gallon concrete TJK manufactured septic tank, with a tank manufacture date of June 11, 2004. The tank is being used as a holding tank, and is not connected to a drainfield.

In accordance with Oregon Administrative Rule (OAR) 340-071-0340, the existing tank is not suitable for continued connection to the existing 7 RV spaces. Specifically, the tank does not meet minimum Oregon Department of Environmental Quality (DEQ) requirements, as follows:

1. The projected maximum daily sewage flow for 7 RV spaces is 700 gallons per day (OAR 340-071-0220, Table 2). A maximum projected daily sewage flow of 200 gpd is allowed to discharge into a permanent holding tank.
2. The volume of the existing tank is 1,000 gallons. Minimum required liquid capacity of all holding tanks is 1,500 gallons.
3. The existing tank does not have an alarm system. Holding tanks must be equipped with both an audible and a visual alarm to indicate when the tanks are 75 percent full.
4. The existing tank is 2 feet from the west property line. A minimum setback of 5 feet is required between holding tanks and property lines (OAR 340-071-0220, Table 1).
5. The existing tank is approximately 45 feet from the Wenaha River. A minimum setback of 50 feet is required between holding tanks and public surface waters (OAR 340-071-220, Table 8).

Ex. A11

Based upon the preceding deficiencies, the unpermitted tank currently used as a holding tank for the 7 RV spaces must be properly decommissioned in accordance with OAR 340-071-0185.

Area of 13 RV Spaces

The 13 RV spaces have been connected to an unpermitted 1,000 gallon dosing septic tank (tank manufacture date of May 1, 2004) and a pressurized distribution system. On the date of my inspection, the effluent pump was removed from the dosing septic tank, and several of the pipes entering and exiting the tank were broken and/or disconnected.

The maximum projected daily sewage flow for 13 RV spaces is 1,300 gallons per day. In accordance with Oregon Administrative Rule (OAR) 340-071-0220, OAR 340-071-0275, OAR 340-073-0030 and OAR 340-73-0055, the existing dosing septic tank and pressurized distribution system are not acceptable for continued connection to the existing 13 RV spaces. Specifically, the system does not meet minimum DEQ requirements, as follows:

1. The existing 1,000 gallon concrete TJK manufactured dosing septic tank does not meet minimum volume or configuration requirements for an RV park with a projected daily sewage flow of 1,300 gallons per day. The maximum projected daily sewage flow allowed to discharge into a dosing septic tank is 600 gpd.
2. The tank contained a single pump without an alarm system. All commercial systems with a design flow greater than 600 gallons must be constructed with two or more alternating (duplex) pumps, and be equipped with both an audible and visible alarm system.
3. Approximately 200 linear feet of pressurized distribution drainfield has been installed. Evaluation of the soils at the site indicates that a minimum of 870 linear feet of drainfield is required for 13 RV spaces.
4. Water lines for a sprinkler system have been installed on top of the disposal trenches. A minimum setback of 10 feet is required between disposal trenches and all water lines.
5. The two existing disposal trenches are 70 - 80 feet from the top of the bank of the Grand Ronde River. A minimum setback of 100 feet is required between disposal trenches and the top of the bank above public surface waters.

Based upon the preceding deficiencies, the unpermitted dosing septic tank and pressurized distribution system must be properly decommissioned in accordance with OAR 340-071-0185.

As you and I have recently discussed, the area of the unpermitted pressurized distribution system does not have adequate area available in which to install septic systems to serve either the 7 RV spaces or the 13 RV spaces while meeting minimum setbacks. Additionally, further review of DEQ files indicates that the area evaluated has previously been identified as replacement drainfield area for other existing structures located at the site. Therefore, all 20 RV spaces must be converted to "dry" camping spaces without sewer connections. The unpermitted existing septic systems must be properly decommissioned and all existing sewer connections must be permanently capped and/or otherwise disabled to prevent future use.

You have informed our Department that you are in the process of confirming that the unpermitted septic systems have been decommissioned. When the systems are fully decommissioned, please submit a completed Certification of Decommissioning and pump receipt for each tank. Also identify the method used to permanently prevent connection of the RVs to the existing sewer connections.

Our Department appreciates your cooperation in resolving this matter. If you have any questions regarding this site evaluation report, please contact me at 541-523-9097. For other questions or technical assistance related to the Troy Lodge Water Pollution Control Facilities (WPCF) Permit, please contact Heidi Williams at 541-278-4608.

Sincerely,

Diane E. Naglee, R.E.H.S.
Natural Resource Specialist
Eastern Region-Water Quality Program

Enc: Site Evaluation Field Worksheet & Plans
OAR 340-071-0220
OAR 340-071-0185
OAR 340-073-0030
OAR 340-073-0055
Table 1, Table 2
Certification of Decommissioning Form

cc: Joni Hammond, Eastern Region Administrator
Mitch Wolgamott, Water Quality Manager
Bryan Smith, DEQ Bend
Heidi Smith, DEQ Pendleton
Wallowa County Planning Dept., 101 S. River St., Rm. B-1,Enterprise, OR 97828
Building Codes Division, 700 SE Emigrant, Pendleton, OR 97801

Commercial

SITE EVALUATION FIELD WORKSHEET

Tax Reference Twp 5N Rge 43E Sec 4BA Evaluator D. Nagle, RHS

Applicant John Kirkland For Tray Loose LLC Date June 6, 2006 Parcel size

Soil Matrix Color and (Mottling), % Coarse Fragments, Roots, Depth Texture Structure, Layer Limiting Effective Soil Depth, etc.

	Depth	Texture		
Pit 1	0-15	CL	2 mSBK 10YR 3/2 0-15 2-3 vf+f rts; 1 med rts	1
1	15-26	C	2-3 mSBK Smeared 10YR 4/2 15"↓ 2 vf+f rts	1
1	26-49	CoSL	1 mSBK 10YR 3/3 xtgr/cobb/st Rap. Perm	1
1				1
Pit 2	0-11	CL		2
2	11-25	gr+cobb C sim		2
2	25-48	CoSL	gr/c/st 28"↓ damp, salts	2
2				2
Pit 3	0-12	CL		3
3	12-30	gr+cobb C		3
3	30-48	CoSL		3
3				3
Pit 4	Sim to pits; damp @ 43"↓		(Pit 5) sim Rap. Perm (Pit 6) 0-5 CL 5-22 vgr/cobb/st C 22-48 s/gr/cobb/st mix w/ C (minimal)	

Diane E. Nagle R.E.H.S. Date
Natural Resource Specialist
Department of Environmental Quality

Landscape Notes Grassfield

Slope 1-2% Aspect S Groundwater Type Permanent

Other Site Notes: Drainfield(s) to be 100' from any ground water or year-round surface water. Septic tank to be 50' from any ground water or surface water.
Recent Rains (significant) in the area

SYSTEM SPECIFICATIONS

Type System: ______ Design flow ______ gpd Disposal Field Size ______ Linear Feet

Initial ______ System Sizing ______ /150g. Max. Depth Absorption Facility (in) ______

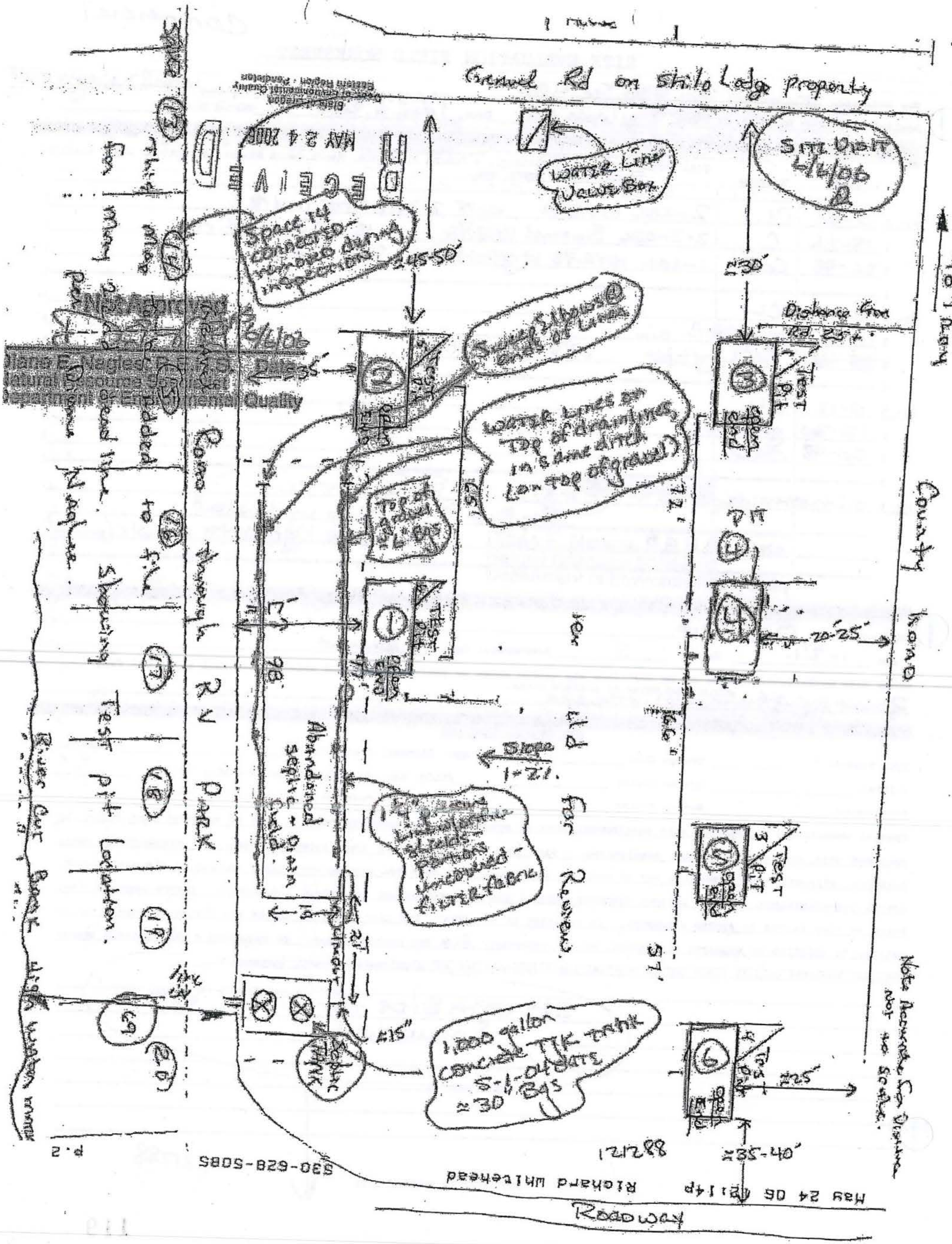
Replacement ______ System Sizing ______ /150g. Max. Depth Absorption Facility (in) ______

Special Conditions: A detailed site development plan of proposed system construction (in area of approved test holes) is required with construction permit application. Plan must identify septic tank location, size, and manufactures name, building, effluent sewer pipe size and ID numbers, distribution or drop box manufacture, cross section of disposal trench, gravel specifications, spacing between trenches, ground and pipe elevations throughout the system. Locate approved test holes as they relate to system placement. In addition to the above, the plan needs to locate the systems placement as it relates to existing or proposed structures, wells, waterways, roads and parking areas. We recommend a DEQ licensed sewage disposal business prepare plans and do eventual installation after DEQ construction permit issuance.

See other side for 7 RV spaces Evaluation

121288

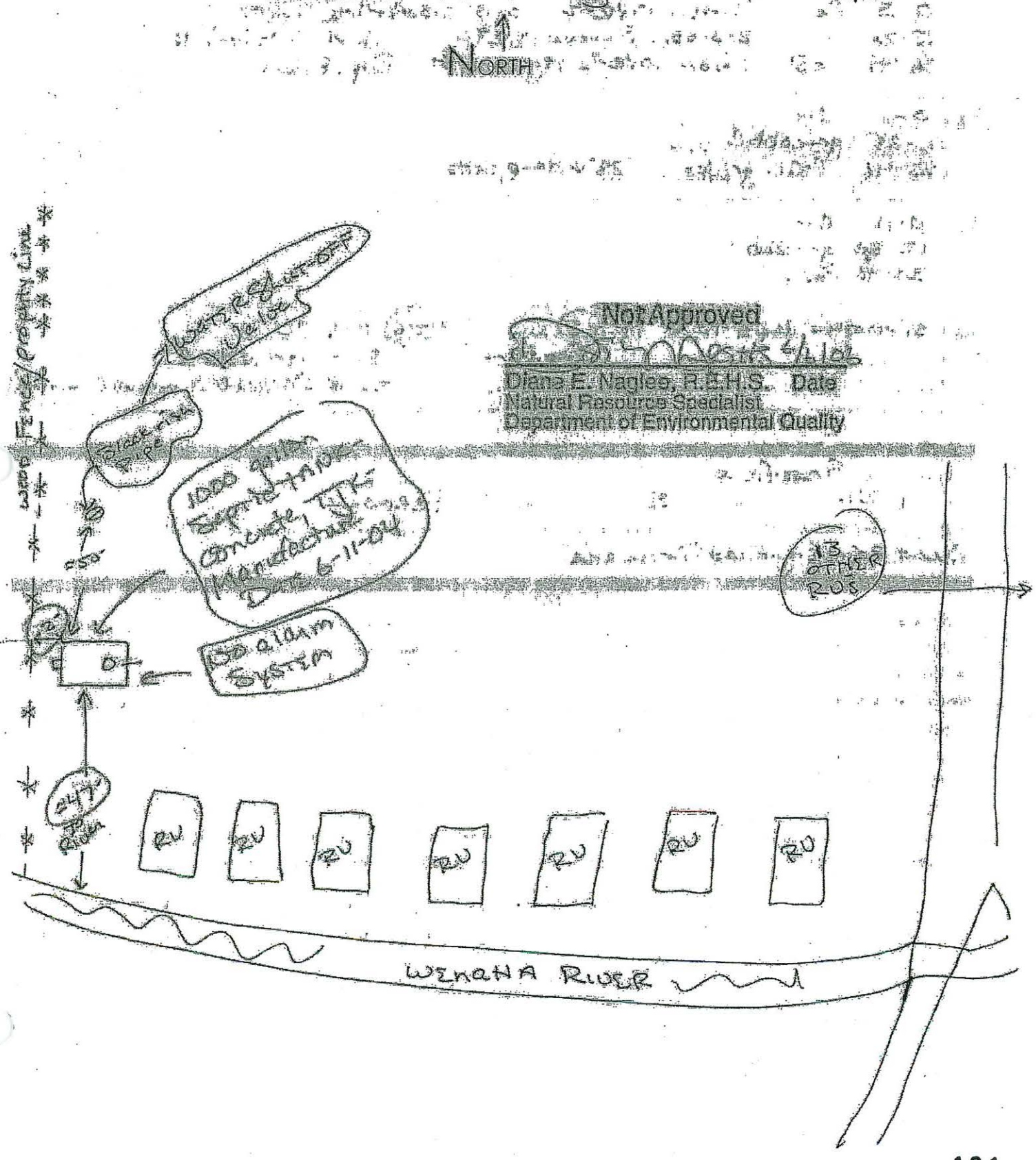
PLOT PLAN ON REVERSE SIDE


Gravel Rd on Shilo Lodge property
Site Visit 4/4/06
Water Line Valve Box
Space 14 connected
County Road
Distance from Rd. 25'
Test Pit
Swivel Elbows @ ends of lines
Water Lines on Top of drainlines, in same ditch (on top of gravel)
Abandoned septic - drain field
Slope 1-2%
1,000 gallon concrete TTK tank
Septic Tank
Note Accurate for Distance not to scale.
Roadway
RV Park
Test pit location
River Cut Bank
RECEIVED MAY 24 2006
State of Oregon Dept. of Environmental Quality Eastern Region - Pendleton
Not Approved
Diane E. Nagle R.E.H.S. Date
Natural Resource Specialist
Department of Environmental Quality
May 24 06 12:14p Richard Whitehead 530-628-5085 p.2

REFERENCE Twp 05S Rge 43E Sec 4 BA TL EVALUATOR D. Naglee, R.E.H.S.

APPLICANT John Kneeland for Tiny Lodge DATE June 6 2006

Evaluation of Holding Tank for 7 RV Spaces



Not Approved

Diana E. Naglee, R.E.H.S. Date
Natural Resource Specialist
Department of Environmental Quality

TROY LODGE
EXPENSES FOR BATH HOUSE, SHOWER, AND PLUMBING

1 SALARIES		
	Richard Whitehead	$2,127.87
	Ken Jones	699.95
2 PERMITS & FEES		
	Or. Dept. of Environmental Quality	985
	Or. Dept. of Cons. Bs. Svcs.	136.14
3 ARCHITECTURAL FEES		
	Wedgwood Architectural Services	1426.6
4 REPAIRS, PLUMBING & SUPPLIES	Various vendors	10,447.18
	TOTAL	**$15,822.74**

Ex. R1

POWWATKA RIDGE LLC
Account QuickReport
January 1 through October 17, 2006

Type	Date	Num	Name	Memo	Split	Amount
Bill	7/18/2006	payroll	Mendez, Alvaro	7/1 - 7/15/06 ...	Accounts Pay...	735.49
Bill	7/18/2006	payroll	Mendez, Maria G	7/1 - 7/15/06 ...	Accounts Pay...	694.69
Bill	7/18/2006	payroll	Mendez, Jessica	7/1 - 7/15/06 ...	Accounts Pay...	500.81
Bill	7/18/2006	payroll	Mendez, Cande	7/1 - 7/15/06 ...	Accounts Pay...	690.17
Bill	7/18/2006	payroll	Mendez, Sylvestre	7/1 - 7/15/06 ...	Accounts Pay...	702.26
Bill	8/2/2006	payroll	Richard Whitehead	7/15 - 7/31/0...	Accounts Pay...	709.29
Bill	8/2/2006	payroll	Dorothy Whitehead	7/15 - 7/31/0...	Accounts Pay...	593.30
Bill	8/2/2006	payroll	Lemus, Salvador M...	7/15 - 7/31/0...	Accounts Pay...	834.70
Bill	8/2/2006	payroll	Mendez, Carmela ...	7/15 - 7/31/0...	Accounts Pay...	812.74
Bill	8/2/2006	payroll	Mendez, Alvaro	7/15 - 7/31/0...	Accounts Pay...	799.51
Bill	8/2/2006	payroll	Mendez, Maria G	7/15 - 7/31/0...	Accounts Pay...	647.19
Bill	8/2/2006	payroll	Mendez, Jessica	7/15 - 7/31/0...	Accounts Pay...	740.66
Bill	8/2/2006	payroll	Mendez, Cande	7/15 - 7/31/0...	Accounts Pay...	766.28
Bill	8/2/2006	payroll	Mendez, Sylvestre	7/15 - 7/31/0...	Accounts Pay...	850.24
Check	8/2/2006	1653	Vernon Prince	7/15 - 7/31/0...	Wells Fargo C...	1,279.39
Bill	8/17/2006	payroll	Richard Whitehead	8/1 - 8/15/06 ...	Accounts Pay...	709.29
Bill	8/17/2006	payroll	Dorothy Whitehead	8/1 - 8/15/06 ...	Accounts Pay...	593.30
Bill	8/17/2006	payroll	Lemus, Salvador M...	8/1 - 8/15/06 ...	Accounts Pay...	893.56
Bill	8/17/2006	payroll	Mendez, Carmela ...	8/1 - 8/15/06 ...	Accounts Pay...	824.10
Bill	8/17/2006	payroll	Mendez, Alvaro	8/1 - 8/15/06 ...	Accounts Pay...	863.55
Bill	8/17/2006	payroll	Mendez, Maria G	8/1 - 8/15/06 ...	Accounts Pay...	784.81
Bill	8/17/2006	payroll	Mendez, Jessica	8/1 - 8/15/06 ...	Accounts Pay...	751.27
Bill	8/17/2006	payroll	Mendez, Cande	8/1 - 8/15/06 ...	Accounts Pay...	775.89
Bill	8/17/2006	payroll	Mendez, Sylvestre	8/1 - 8/15/06 ...	Accounts Pay...	850.24
Bill	8/18/2006	payroll	Vern Prince	8/1 - 8/15/06 ...	Accounts Pay...	1,529.94
Bill	9/1/2006	payroll	Richard Whitehead	8/15 - 8/31/0...	Accounts Pay...	709.29
Bill	9/1/2006	payroll	Dorothy Whitehead	8/15 - 8/31/0...	Accounts Pay...	593.30
Bill	9/1/2006	payroll	Lemus, Salvador M...	8/15 - 8/31/0...	Accounts Pay...	834.70
Bill	9/1/2006	payroll	Mendez, Carmela ...	8/15 - 8/31/0...	Accounts Pay...	812.74
Bill	9/1/2006	payroll	Mendez, Alvaro	8/15 - 8/31/0...	Accounts Pay...	816.04
Bill	9/1/2006	payroll	Mendez, Maria G	8/15 - 8/31/0...	Accounts Pay...	827.22
Bill	9/1/2006	payroll	Mendez, Jessica	8/15 - 8/31/0...	Accounts Pay...	370.37
Bill	9/1/2006	payroll	Mendez, Cande	8/15 - 8/31/0...	Accounts Pay...	818.30
Bill	9/1/2006	payroll	Mendez, Sylvestre	8/15 - 8/31/0...	Accounts Pay...	906.01
Bill	9/1/2006	payroll	Vern Prince	8/15 - 8/31/0...	Accounts Pay...	1,136.33
Bill	9/19/2006	payroll	Richard Whitehead	9/1 - 9/15/06 ...	Accounts Pay...	709.29
Bill	9/19/2006	payroll	Dorothy Whitehead	9/1 - 9/15/06 ...	Accounts Pay...	593.30
Bill	9/19/2006	payroll	Lemus, Salvador M...	9/1 - 9/15/06 ...	Accounts Pay...	723.18
Bill	9/19/2006	payroll	Mendez, Carmela ...	9/1 - 9/15/06 ...	Accounts Pay...	701.22
Bill	9/19/2006	payroll	Mendez, Alvaro	9/1 - 9/15/06 ...	Accounts Pay...	760.28
Bill	9/19/2006	payroll	Mendez, Maria G	9/1 - 9/15/06 ...	Accounts Pay...	664.72
Bill	9/19/2006	payroll	Mendez, Jessica	9/1 - 9/15/06 ...	Accounts Pay...	370.37
Bill	9/19/2006	payroll	Mendez, Cande	9/1 - 9/15/06 ...	Accounts Pay...	818.30
Bill	9/19/2006	payroll	Mendez, Sylvestre	9/1 - 9/15/06 ...	Accounts Pay...	733.89
Bill	9/19/2006	payroll	Vern Prince	9/1 - 9/15/06 ...	Accounts Pay...	768.04
Bill	10/2/2006	payroll	Mendez, Sylvestre	9/15 - 9/30/0...	Accounts Pay...	783.13
Bill	10/2/2006	payroll	Mendez, Jessica	9/15 - 9/30/0...	Accounts Pay...	303.25
Bill	10/2/2006	payroll	Mendez, Maria G	9/15 - 9/30/0...	Accounts Pay...	691.60
Bill	10/2/2006	payroll	Richard Whitehead	9/15 - 9/30/0...	Accounts Pay...	709.29
Bill	10/2/2006	payroll	Dorothy Whitehead	9/15 - 9/30/0...	Accounts Pay...	593.30
Bill	10/2/2006	payroll	Lemus, Salvador M...	9/15 - 9/30/0...	Accounts Pay...	767.59
Bill	10/2/2006	payroll	Mendez, Alvaro	9/15 - 9/30/0...	Accounts Pay...	748.93
Bill	10/2/2006	payroll	Mendez, Carmela ...	9/15 - 9/30/0...	Accounts Pay...	745.63
Bill	10/2/2006	payroll	Vern Prince	9/15 - 9/30/0...	Accounts Pay...	1,316.43
Total Salaries						83,705.54
TOTAL						**83,705.54**

1 pay period
Ken Jones $699.95

3 pay periods for
Richard Whitehead
$2,127.87

123

POWWATKA RIDGE LLC
Account QuickReport
January 1 through October 17, 2006

Type	Date	Num	Name	Memo	Split	Amount
Salaries						
Bill	1/4/2006	payroll	Ken Jones	12/15 - 12/31...	Accounts Pay...	699.95
Bill	1/4/2006	payroll	Mary Beth Jones	12/15 - 12/31...	Accounts Pay...	474.34
Bill	1/18/2006	payroll	Ken Jones	1/1 - 1/15/06 ...	Accounts Pay...	699.95
Bill	1/18/2006	payroll	Mary Beth Jones	1/1 - 1/15/06 ...	Accounts Pay...	474.34
Bill	2/2/2006	payroll	Ken Jones	1/15 - 1/31/0...	Accounts Pay...	699.95
Bill	2/2/2006	payroll	Mary Beth Jones	1/15 - 1/31/0...	Accounts Pay...	479.34
Bill	2/16/2006	payroll	Ken Jones	2/1 - 2/15/06 ...	Accounts Pay...	699.95
Bill	2/16/2006	payroll	Mary Beth Jones	2/1 - 2/15/06 ...	Accounts Pay...	479.34
Bill	3/2/2006	payroll	Ken Jones	2/15 - 2/28/0...	Accounts Pay...	699.95
Bill	3/2/2006	payroll	Mary Beth Jones	2/15 - 2/28/0...	Accounts Pay...	479.34
Bill	3/16/2006	payroll	Ken Jones	3/1 - 3/15/06 ...	Accounts Pay...	699.95
Bill	3/16/2006	payroll	Mary Beth Jones	3/1 - 3/15/06 ...	Accounts Pay...	479.34
Bill	3/30/2006	payroll	Ken Jones	3/15 - 3/31/0...	Accounts Pay...	699.95
Bill	3/30/2006	payroll	Ken Jones	4/1 - 4/2/06 p...	Accounts Pay...	144.78
Bill	3/30/2006	payroll	Ken Jones	vacation pay	Accounts Pay...	348.78
Bill	3/30/2006	payroll	Mary Beth Jones	3/15 - 3/31/0...	Accounts Pay...	479.34
Bill	3/30/2006	payroll	Mary Beth Jones	4/1 - 4/2/06 p...	Accounts Pay...	46.74
Bill	3/30/2006	payroll	Mary Beth Jones	vacation pay	Accounts Pay...	263.45
Bill	4/3/2006	payroll	Richard Whitehead	3/31 - 4/2/06	Accounts Pay...	327.05
Bill	4/3/2006	payroll	Dorothy Whitehead	3/31 - 4/02/0...	Accounts Pay...	250.04
Bill	4/3/2006	payroll	Lemus, Salvador M...	3/31 - 4/02 p...	Accounts Pay...	538.10
Bill	4/3/2006	payroll	Mendez, Carmela ...	3/31 - 4/02/0...	Accounts Pay...	578.34
Bill	4/3/2006	payroll	Mendez, Alvaro	3/31 - 4/02/0...	Accounts Pay...	652.77
Bill	4/3/2006	payroll	Mendez, Jessica	3/31 - 4/02/0...	Accounts Pay...	393.07
Bill	4/17/2006	payroll	Richard Whitehead	4/1 - 4/15/06 ...	Accounts Pay...	767.19
Bill	4/17/2006	payroll	Dorothy Whitehead	4/1 - 4/15/06 ...	Accounts Pay...	593.30
Bill	4/17/2006	payroll	Lemus, Salvador M...	4/1 - 4/15/06 ...	Accounts Pay...	757.24
Bill	4/17/2006	payroll	Mendez, Carmela ...	4/1 - 4/15/06 ...	Accounts Pay...	689.87
Bill	4/17/2006	payroll	Mendez, Alvaro	4/1 - 4/15/06 ...	Accounts Pay...	737.58
Bill	4/17/2006	payroll	Mendez, Jessica	4/1 - 4/15/06 ...	Accounts Pay...	218.57
Bill	5/2/2006	PAYR...	Richard Whitehead	4/15 - 5/01/0...	Accounts Pay...	767.19
Bill	5/2/2006	payroll	Dorothy Whitehead	4/15 - 5/01/0...	Accounts Pay...	593.30
Bill	5/2/2006	payroll	Lemus, Salvador M...	4/15 - 5/01/0...	Accounts Pay...	784.12
Bill	5/2/2006	payroll	Mendez, Carmela ...	4/15 - 5/01/0...	Accounts Pay...	729.10
Bill	5/2/2006	payroll	Mendez, Alvaro	4/15 - 5/01/0...	Accounts Pay...	765.46
Bill	5/2/2006	payroll	Mendez, Jessica	4/15 - 5/01/0...	Accounts Pay...	198.79
Bill	5/16/2006	payroll	Richard Whitehead	5/1 - 5/15/06 ...	Accounts Pay...	767.19
Bill	5/16/2006	payroll	Dorothy Whitehead	5/1 - 5/15/06 ...	Accounts Pay...	593.30
Bill	5/16/2006	payroll	Lemus, Salvador M...	5/1 - 5/15/06 ...	Accounts Pay...	986.60
Bill	5/16/2006	payroll	Mendez, Carmela ...	5/1 - 5/15/06 ...	Accounts Pay...	968.68
Bill	5/16/2006	payroll	Mendez, Alvaro	5/1 - 5/15/06 ...	Accounts Pay...	971.97
Bill	5/16/2006	payroll	Mendez, Jessica	5/1 - 5/15/06 ...	Accounts Pay...	306.35
Bill	6/5/2006	payroll	Richard Whitehead	5/15 - 5/31/0...	Accounts Pay...	767.19
Bill	6/5/2006	payroll	Dorothy Whitehead	5/15 - 5/31/0...	Accounts Pay...	593.30
Bill	6/5/2006	payroll	Lemus, Salvador M...	5/15 - 5/31/0...	Accounts Pay...	859.50
Bill	6/5/2006	payroll	Mendez, Carmela ...	5/15 - 5/31/0...	Accounts Pay...	837.54
Bill	6/5/2006	payroll	Mendez, Alvaro	5/15 - 5/31/0...	Accounts Pay...	840.54
Bill	6/5/2006	payroll	Mendez, Jessica	5/15 - 5/31/0...	Accounts Pay...	257.84
Bill	6/16/2006	payroll	Richard Whitehead	6/1 - 6/15/06 ...	Accounts Pay...	767.19
Bill	6/16/2006	payroll	Dorothy Whitehead	6/1 - 6/15/06 ...	Accounts Pay...	593.30
Bill	6/16/2006	payroll	Lemus, Salvador M...	6/1 - 6/15/06 ...	Accounts Pay...	901.82
Bill	6/16/2006	payroll	Mendez, Carmela ...	6/1 - 6/15/06 ...	Accounts Pay...	879.86
Bill	6/16/2006	payroll	Mendez, Alvaro	6/1 - 6/15/06 ...	Accounts Pay...	882.16
Bill	6/16/2006	payroll	Mendez, Jessica	6/1 - 6/16/06 ...	Accounts Pay...	694.45
Bill	7/5/2006	payroll	Richard Whitehead	6/15 - 6/30/0...	Accounts Pay...	709.29
Bill	7/5/2006	payroll	Dorothy Whitehead	6/15 - 6/30/0...	Accounts Pay...	593.30
Bill	7/5/2006	payroll	Lemus, Salvador M...	6/15 - 6/30/0...	Accounts Pay...	870.85
Bill	7/5/2006	payroll	Mendez, Carmela ...	6/15 - 6/30/0...	Accounts Pay...	835.45
Bill	7/5/2006	payroll	Mendez, Alvaro	6/15 - 6/30/0...	Accounts Pay...	837.75
Bill	7/5/2006	payroll	Mendez, Jessica	6/15 - 6/30/0...	Accounts Pay...	761.87
Bill	7/5/2006	payroll	Mendez, Maria G	6/15 - 6/30/0...	Accounts Pay...	714.30
Bill	7/5/2006	payroll	Mendez, Sylvestre	6/15 - 6/30/0...	Accounts Pay...	767.98
Bill	7/7/2006	payroll	Mendez, Cande	6/15 - 6/30/0...	Accounts Pay...	708.47
Bill	7/18/2006	PAYR...	Richard Whitehead	7/1 - 7/15/06 ...	Accounts Pay...	709.29
Bill	7/18/2006	payroll	Dorothy Whitehead	7/1 - 7/15/06 ...	Accounts Pay...	593.30
Bill	7/18/2006	payroll	Lemus, Salvador M...	7/1 - 7/15/06 ...	Accounts Pay...	754.15
Bill	7/18/2006	payroll	Mendez, Carmela ...	7/1 - 7/15/06 ...	Accounts Pay...	732.19

TROY LODGE LLC
11600 SW SHILO LN
PORTLAND, OR 97225-5919

1043

24-22/1230 3236

June 29, 2006
DATE

PAY TO THE ORDER OF Wedgwood Architectural Services $ 1,426.60

One thousand four hundred twenty-six 60/100 DOLLARS

Security Features Details on Back.

usbank.com

usbank.
Five Star Service Guaranteed

FOR Inv. # 12

MP

⑆123000220⑆ 153655571963⑈1043

HARLAND 2001

JUN 16 REC'D

WEDGWOOD ARCHITECTURAL SERVICES

INVOICE

To: Shilo Inns
11600 SW Shilo Lane
Portland, Oregon 97225
(503)641-6565

Invoice Number: 12
Invoice Date: 1-May-06

Attn: Dave Forni

Project: 2605 Troy Lodge - Shower Rooms Troy, Oregon

LYLE ANDREW BREMMEYER, ARCHITECT
WEDGWOOD ARCHITECTURAL SERVICES
PHASE I – Permit Drawings

		Contract Amount	T&M	Balance
FEE EARNED THIS BILLING	Draftsman	$ 55.00	4	$ 220.00
	Architect	$ 75.00	16	$ 1,200.00

EXPENSE TYPE		REIMBURSABLE COST
COPYING	*__sheets x $1.00/sheet (approx.)*	$6.00
SHIPPING		$0.00
ENGINEERING		$0.00
TOTAL TRIP REIMBURSABLES		**$6.00**
TOTAL REIMBURSABLES AFTER OVERHEAD & PROFIT	1.1	$6.60

GRAND TOTAL DUE WITH THIS INVOICE **$ 1,426.60**

Ok
6-16-06

Ok PSI
6/22/06

126

Shilo Inns®

AFFORDABLE EXCELLENCE

SHILO MANAGEMENT CORPORATION

REQUEST FOR PAYMENT

DATE 11/7/05 DATE/TIME REQUIRED Today

PAYEE OR Dept. of Environmental Quality

NEW PAYEE (if known) YES NO FED ID/SOC SEC # _____ (if known)

PAYEE'S ADDRESS 700 SE Emigrant, Suite 330
Pendleton, OR 97801

AMOUNT OF CHECK REQUESTED $ ~~185.00~~ 165.00 (165.00 ✓)

CHECK REQUESTED BY Dothe

REQUEST APPROVED BY JPK 2ND APPROVAL BY DJ

LOCATION CHARGED Troy

GENERAL LEDGER # _____ TRAVEL ADVANCE YES NO

DESCRIPTION OF PAYMENT Application fee for
Troy DEQ on-site evaluation

PURCHASE ORDER/CONTRACT ADVANCE YES NO

PO/CONTRACT # _____

EXTRA YES NO PO/CONTRACT CARD YES NO

SPECIAL INSTRUCTIONS _____

MAIL CHECK YES NO RETURN CHECK TO _____

/sjs
WORD\FORMS\CHECK REQUEST 7-12-00

128

SALES FAX (503) 644-0868
MARKETING FAX (503) 641-1326
MANAGEMENT FAX (503) 643-7261

11600 SW SHILO LANE
PORTLAND, OREGON 97225-5995

PHONE: (503) 641-6565
www.shiloinns.com
TOLL FREE RESERVATIONS: 1-800-222-2244

TROY LODGE LLC
11600 SW SHILO LN
PORTLAND, OR 97225-5919

1037

24-22/1230 3236

11/7/05
DATE

PAY TO THE ORDER OF Ore. Dept. of Environmental Quality $ 685.00

Six hundred eighty-five + 00/100 DOLLARS

usbank.com

usbank
Five Star Service Guaranteed

Mark L. Hemstreet

FOR Dep Evaluation

MP

⑆123000220⑆ 153655571963⑈1037

HARLAND 2001

127

TROY LODGE LLC
11600 SW SHILO LN
PORTLAND, OR 97225-5919

1042

24-22/1230 3236

June 9, 2006
DATE

PAY TO THE ORDER OF Dept. of Environmental Quality | $ 300.00

Three hundred + 00/100 DOLLARS

Security Features Details on Back

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Wallowa County
#103546 ER Region
FOR WQ07DOM-0606

MP

⑆123000220⑆ 153655571963⑈1042

HARLAND 2001

State of Oregon
Department of Environmental Quality

Invoice

Water Quality Annual Compliance Determination Fee
For Fiscal Year 2007: July 1, 2006 through June 30, 2007

TO: Accounts Payable
Shilo Management Corporation
11600 SW Shilo Ln
Portland, OR 97225-5919

FOR: Source #103546
SHILO INN
84570 BARTLETT RD.
TROY

Region: ER
County: WALLOWA

Invoice Number: **WQ07DOM-0606**
Invoice Date: 05-15-2006
Invoice Due Date: **07-31-2006**

Permit Number:	102593
Permit Type	WPCF-OS
Basis for Fee Amount:	Sewage Disposal; WPCF On-Site subsurface system, less than 20,000 GPD
Ownership:	PRIVATE

Total Fee: **$300.00**

If this source is no longer operating or if the permit is no longer needed, contact us in writing by July 31st with the signature of your legally authorized representative.

Christine Watson: DEQ Water Quality, 811 SW Sixth Avenue, Portland, OR 97204-1390
E-mail: Watson.Chris@deq.state.or.us; Phone: 503-229-5437; TTY 503-229-6993; Fax: 503-229-5408

TROY LODGE LLC
11600 SW SHILO LN
PORTLAND, OR 97225-5919

1038

24-22/1230 3236

Building Code Division 11/30/05
DATE

PAY TO THE ORDER OF Oregon Dept. of Consumer + Bus. Services $ 136.14

One hundred thirty-six + 14/100 DOLLARS

Security Features Details on Back.

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FOR Bathhouse permit/plan review fee

MP

⑆123000220⑆ 153655571963⑈1038

HARLAND 2001

Shilo Inns
AFFORDABLE EXCELLENCE

SHILO MANAGEMENT CORPORATION

Bulb

REQUEST FOR PAYMENT

DATE 11/29/04 DATE/TIME REQUIRED _____

PAYEE Building Codes Division, OR Dept. of Consumer & Business Services

NEW PAYEE (if known) YES NO FED ID/SOC SEC # _____ (if known)

PAYEE'S ADDRESS ~~104 NE 1st Enterp~~ 700 SE Emigrant, Suite 360, Pendleton, OR 97801

AMOUNT OF CHECK REQUESTED $ 136.14

CHECK REQUESTED BY JPK

REQUEST APPROVED BY _____ 2ND APPROVAL BY DW

LOCATION CHARGED _____

GENERAL LEDGER # _____ TRAVEL ADVANCE YES NO

DESCRIPTION OF PAYMENT Troy bathhouse permit/plan review fee

PURCHASE ORDER/CONTRACT ADVANCE YES NO

PO/CONTRACT # _____

EXTRA YES NO PO/CONTRACT CARD YES NO

SPECIAL INSTRUCTIONS _____

MAIL CHECK YES NO RETURN CHECK TO _____

/sjs
WORD\FORMS\CHECK REQUEST 7-12-00

132

SALES FAX (503) 644-0868
MARKETING FAX (503) 641-1326
MANAGEMENT FAX (503) 643-7261

11600 SW SHILO LANE
PORTLAND, OREGON 97225-5995

PHONE: (503) 641-6565
www.shiloinns.com
TOLL FREE RESERVATIONS: 1-800-222-2244

TROY LODGE LLC
11600 SW SHILO LN
PORTLAND, OR 97225-5919

1049

24-22/1230 3236

October 4, 2006
DATE

PAY TO THE ORDER OF J. B. Barr & Company | $ 32.58

Thirty-two & 58/100 DOLLARS

Security Features Details on Back

usbank
Five Star Service Guaranteed

usbank.com

FOR Shilo Troy

MP

⑆123000220⑆ 153655571963⑈1049

HARLAND 2001

J.B. Bane & Company
208 S. River St.
P.O. Box 337
Enterprise, OR 97828

Statement of Account

SHILO LODGE TROY
11600 S.W. SHILO LANE
SUITE 200
PORTLAND, OR 97225-5995

STATEMENT DATE
09/25/06

ACCOUNT NO.
SHILORLTROY

DATE	INVOICE	DESCRIPTION	CHARGES	CREDITS	AMOUNT DUE	AMOUNT DUE
	Bal/Fwd	Balance Forward	2767.66	0.00	0.00	2767.66
08/30/06	177170		8.34	0.00	8.34	2776.00
09/06/06	177262		27.86	0.00	27.86	2803.86
09/22/06		Payment, chk#1	0.00	-2767.66	0.00	36.20

ACCOUNTS ARE DUE ON THE 10TH OF MONTH FOLLOWING STATEMENT DATE.

CCB# 93417

Current	1 to 30	31 to 60	61 to 90	Over 90	TOTAL	36.20
36.20	0.00	0.00	0.00	0.00		

Please deduct $3.63, if paid by 10-10-06.

$32.58

TROY LODGE LLC
11600 SW SHILO LN
PORTLAND OR 97225-5919

Money Market Check **116**

Date 9/20/06 24-22/1230

Pay to the order of J B Bare + Company $ 92.66

Ninety-two + 66/100 Dollars

www.usbank.com

usbank
Five Star Service Guaranteed

For Shilo Troy

⑆123000220⑆ 153693 24 2049 ⑈0116

TROY LODGE LLC
11600 SW SHILO LN
PORTLAND, OR 97225-5919

1048

24-22/1230 3236

9/20/06
DATE

PAY TO THE ORDER OF J B Bare & Co. $ 2675.00

Twenty six hundred seventy five + 00/100 DOLLARS

usbank.com

usbank
Five Star Service Guaranteed

FOR Shilo Troy

⑆123000220⑆ 153655571963 ⑈1048

HARLAND 2001

Total $2767.66

J.B. Bane & Company
208 S. River St.
P.O. Box 337
Enterprise, OR 97828

Statement of Account

SHILO LODGE TROY
11600 S.W. SHILO LANE
SUITE 200
PORTLAND, OR 97225-5995

STATEMENT DATE
08/25/06

ACCOUNT NO.
SHILORLTROY

DATE	INVOICE	DESCRIPTION	CHARGES	CREDITS	AMOUNT DUE	AMOUNT DUE
07/27/06	176114		92.66	0.00	92.66	92.66
08/14/06	176471		98.06	0.00	98.06	190.72
08/14/06	176528		563.65	0.00	563.65	754.37
08/15/06	176541		673.73	0.00	673.73	1428.10
08/16/06	176572		847.96	0.00	847.96	2276.06
08/18/06	176601		487.39	0.00	487.39	2763.45
08/21/06	176604		4.21	0.00	4.21	2767.66

ACCOUNTS ARE DUE ON THE 10TH OF MONTH FOLLOWING STATEMENT DATE.

CCB# 93417

Current	1 to 30	31 to 60	61 to 90	Over 90	TOTAL	2767.66
2767.66	0.00	0.00	0.00	0.00		

Please deduct $47.68, if this is paid by 9-10-06.

TROY LODGE LLC
11600 SW SHILO LN
PORTLAND, OR 97225-5919

1047

24-22/1230 3236

8/18/06
DATE

PAY TO THE ORDER OF Reynolds Plumbing, Inc- $ 383.90

Three hundred eighty-three + 90/100 DOLLARS

Security Features Details on Back.

usbank
Five Star Service Guaranteed

usbank.com

FOR #2006-467

Michael Reynolds

MP

⑆123000220⑆ 153655571963⑈1047

HARLAND 2001

Reynold's Plumbing, Inc.
807 W Greenwood Street
Enterprise, Oregon 97828

Phone # 541-426-0532
Fax # 541-426-9803
kreynolds@eoni.com

Invoice

Date	Invoice #
8/15/2006	2006-467

Bill To

Shilo Ranch
Mark Hemstreet
84576 Bartlet Rd
Troy, OR 97828

Terms	Due Date
Net 10	8/25/2006

Job Shilo Inn - Troy

Description	Qty	Rate	Serviced	Amount
ADA Toilet	1	176.00		176.00
EL Toilet Seat	2	29.00		58.00
LAV Faucet	1	97.50		97.50
ADA Trap Boot Kit	1	28.50		28.50
Chrome Trap	1	21.00		21.00
Chrome Box Esc	1	2.90		2.90

ALL ACCOUNTS ARE DUE AND PAYABLE 10 DAYS FROM DATE OF INVOICE. Payments of accounts which reach our office 10 days after the due date of Invoice may be charged interest at the rate of 2% per month on any unpaid amount, including previously assessed interest or re-billing charges. This is an annual effective rate of 26.825%. The minimun re-billing charge for accounts of $100 or less which are not paid in full is $2.00.

TIN#91-1788998

CB#122511

Total	$383.90
Payments/Credits	$0.00
Balance Due	$383.90

TROY LODGE LLC
11600 SW SHILO LN
PORTLAND, OR 97225-5919

1046

24-22/1230 3236

8/14/06
DATE

PAY TO THE ORDER OF Reynolds Plumbing, Inc. $ 3,471.00

Three thousand four hundred seventy-one + 00/100 DOLLARS

Security Features Details on Back

usbank
Five Star Service Guaranteed

usbank.com

FOR #2006-425

MP

⑆123000220⑆ 153655571963⑈1046

HARLAND 2001

Reynold's Plumbing, Inc.
807 W Greenwood Street
Enterprise, Oregon 97828

Phone # 541-426-0532
Fax # 541-426-9803
kreynolds@eoni.com

Invoice

Date	Invoice #
6/22/2006	2006-425

Bill To

Shilo Ranch
Mark Hemstreet
84576 Bartlet Rd
Troy, OR 97828

Terms	Due Date
Net 10	7/2/2006

Job Shilo Bath & Laundry

Description	Qty	Rate	Serviced	Amount
Service Call	7.5	55.00	6/14/2006	412.50
Service Call	11	55.00	6/20/2006	605.00
Service Call	6	55.00	6/21/2006	330.00
Trip charge	3	50.00		150.00
ADA Shower with shower strainer	1	1,516.50		1,516.50
Hand Held Shower Head	1	147.50		147.50
Plumbing Materials	1	309.50		309.50

ALL ACCOUNTS ARE DUE AND PAYABLE 10 DAYS FROM DATE OF INVOICE. Payments of accounts which reach our office 10 days after the due date of Invoice may be charged interest at the rate of 2% per month on any unpaid amount, including previously assessed interest or re-billing charges. This is an annual effective rate of 26.825%. The minimun re-billing charge for accounts of $100 or less which are not paid in full is $2.00.

TIN#91-1788998

CB#122511

Total	$3,471.00
Payments/Credits	$0.00
Balance Due	$3,471.00

TROY LODGE LLC
11600 SW SHILO LN
PORTLAND, OR 97225-5919

1045

24-22/1230 3236

PAY TO THE ORDER OF Roto-Rooter 7/17/06 DATE

Six hundred nineteen + 62/100 $ 619.62

usbank Five Star Service Guaranteed usbank.com

FOR Inv. #53035

⑆123000220⑆ 153655571963⑈1045

MARLAND 2001

VP

Lewiston - Clarkston
2924 Hatwai Road
Lewiston, ID 83501
(208) 746-4282
(509) 758-2240
(208) 935-1333

ROTO-ROOTER® SEWER-DRAIN SERVICE

53035

Moscow - Pullman
P.O. Bo[illegible]22
Moscow, ID [illegible]3843
(208) 882-8822
(509) 334-5304
(509) 397-2056

Boggans Oasis
6376 State Hwy 129
Onaway

Job Address Boggans & Shilo Oasis

Job # 64528 P.O. # Date 5-15-06

Time: Arrival Departure

Job Description

Pumped 1000 gal tank at Boggans and a 25 gal grease trap.	340.00
Pumped two 1000 gal tanks at Shilo.	650.00

Labor

Materials

Charged 5-15-06
Partial Pymt
CK# 12687
#441.66

Balance due #619.62

Sub-Total	
Discount	
Total	990.00
Tax	71.28
TOTAL	#1061.28

GUARANTEE For the period of _____ from the above date we agree to reclean the above described line at no additional cost in the event the sewer or pipe fails to function due to root stoppage. This guarantee does not include stoppages caused by paint, rags, leaves, cement, grease, garbage, or other debris ... or broken or settled section of tile or pipe. It is further provided that this contract is void unless payment on contract has been made within 30 days from completion of work.

I agree not to hold the ROTO-ROOTER SERVICE and PLUMBING COMPANY responsible for difficulties encountered due to existing condition of pipe, such as rusted out, settled or broken down lines or foreign objects being left in pipe, or for any damages that may occur in gaining access to the problem line. ROTO-ROOTER will not be responsible for plumbing that is worn, old, damaged by acid, or leaking due to construction or age.

PAYMENT for such services are to be made upon completion or as otherwise agreed. I agree to pay all collection costs, attorney fees and court costs in event of enforced payment.

By signing or otherwise authorizing this work, the property or business owner agrees to these terms and conditions, where applicable, for the services rendered.

IF SERVICE IS UNSATISFACTORY IN ANY WAY, PLEASE PHONE OUR OFFICE IMMEDIATELY.

Tenant Signature

Customer's Signature Mint

Serviceman's Signature 142

CUSTOMER COPY

Printcraf

TROY LODGE LLC
11600 SW SHILO LN
PORTLAND, OR 97225-5919

1044

24-22/1230 3236

July 14, 2006
DATE

PAY TO THE ORDER OF J. B. Boone & Company $ 428.25

Four hundred twenty-eight + 25/100 DOLLARS

Security Features Details on Back

usbank
Five Star Service Guaranteed

usbank.com

Mark L. Hemstreet

FOR Shilo Troy

MP

⑆123000220⑆ 153655571963⑈1044

HARLAND 2001

J.B. Bane & Company
208 S. River St.
P.O. Box 337
Enterprise, OR 97828

Statement of Account

SHILO LODGE TROY
11600 S.W. SHILO LANE
SUITE 200
PORTLAND, OR 97225-5995

STATEMENT DATE
06/25/06

ACCOUNT NO.
SHILORLTROY

DATE	INVOICE	DESCRIPTION	CHARGES	CREDITS	AMOUNT DUE	AMOUNT DUE
	Bal/Fwd	Balance Forward	2317.20	0.00	0.00	2317.20
06/10/06		Payment, chk#1	0.00	-2171.57	0.00	145.63
06/13/06	175304		428.25	0.00	428.25	573.88
		Early Payment Discounts	0.00	-145.63	0.00	428.25

ACCOUNTS ARE DUE ON THE 10TH OF MONTH FOLLOWING STATEMENT DATE.

CCB# 93417

Current	1 to 30	31 to 60	61 to 90	Over 90	TOTAL	428.25
428.25	0.00	0.00	0.00	0.00		

Please deduct 8¢, if paid by 7-10-06.

TROY LODGE LLC
11600 SW SHILO LN
PORTLAND, OR 97225-5919

1030

24-22/1230 3236

6/8/06
DATE

PAY TO THE ORDER OF J. B. Barr & Company $ 2,171.57

Two thousand one hundred seventy-one + 57/100 DOLLARS

Security Features Details on back

usbank
Five Star Service Guaranteed

usbank.com

FOR Shilo Troy

IMP

⑆123000220⑆ 153655571963⑈1030

HARLAND 2001

J.B. Bane & Company
208 S. River St.
P.O. Box 337
Enterprise, OR 97828

Statement of Account

SHILO LODGE TROY
11600 S.W. SHILO LANE
SUITE 200
PORTLAND, OR 97225-5995

STATEMENT DATE
05/25/06

ACCOUNT NO.
SHILORLTROY

DATE	INVOICE	DESCRIPTION	CHARGES	CREDITS	AMOUNT DUE	AMOUNT DUE
05/16/06	174674		378.70	0.00	378.70	378.70
05/17/06	174747		1938.50	0.00	1938.50	2317.20

ACCOUNTS ARE DUE ON THE 10TH OF MONTH FOLLOWING STATEMENT DATE.

CCB# 93417

Current	1 to 30	31 to 60	61 to 90	Over 90	TOTAL	2317.20
2317.20	0.00	0.00	0.00	0.00		

Please deduct $ 145 63, if paid by 6-10 06. #2171-57

TROY LODGE LLC
11600 SW SHILO LN
PORTLAND, OR 97225-5919

1041

24-22/1230 3236

January 9, 2006
DATE

PAY TO THE ORDER OF Reynolds Plumbing Inc. $ 602.60

Six hundred two + 60/100 DOLLARS

Security Features Details on Back

usbank.com

usbank.
Five Star Service Guaranteed

FOR Inv #2005-271

MP

⑆123000220⑆ 153655571963⑈1041

HARLAND 2001

147

Reynold's Plumbing, Inc.
807 W Greenwood Street
Enterprise, Oregon 97828

Phone # 541-426-0532
Fax # 541-426-9803
kreynolds@eoni.com

Invoice

Date	Invoice #
12/6/2005	2005-271

Bill To

Mark Hemstreet
84576 Bartlet Rd
Troy, OR 97828

Terms	Due Date
Net 10	12/16/2005

Job Inspection - Shilo Inn

Description	Qty	Rate	Serviced	Amount
Travel and inspection for Bath House	3	60.00		180.00
Trip charge - 100 miles RT	1	50.00		50.00
Permits	1	372.60		372.60

ALL ACCOUNTS ARE DUE AND PAYABLE 10 DAYS FROM DATE OF INVOICE. Payments of accounts which reach our office 10 days after the due date of Invoice may be charged interest at the rate of 2% per month on any unpaid amount, including previously assessed interest or re-billing charges. This is an annual effective rate of 26.825%. The minimun re-billing charge for accounts of $100 or less which are not paid in full is $2.00.

TIN#91-1788998

CB#122511

Total	$602.60
Payments/Credits	$0.00
Balance Due	$60.

D. RAHN HOSTETTER, P.C.
Attorneys at Law
203 E. Main Street
P. O. Box 400
Enterprise, OR 97828
Tel: (541) 426-4584
Fax: (541) 426-3281
drhlaw@eoni.com

Attorneys for Plaintiff

CERTIFIED TRUE COPY

DRH

IN THE CIRCUIT COURT OF THE STATE OF OREGON

FOR THE COUNTY OF UNION

SRPR, LLC, an Oregon Limited Liability Company, and Troy Lodge, LLC, an Oregon Limited Liability Company, and Mark S. Hemstreet, Plaintiffs, v. WARREN MORRIS and ROBIN MORRIS, Defendants.	Case No. 05-11-43441 COMPLAINT - CONVERSION, REPLEVIN, TRESPASS TO CHATTELS, BREACH OF CONTRACT, UNJUST ENRICHMENT, CONSTRUCTIVE TRUST, TIMBER TRESPASS (Not Subject To Mandatory Arbitration)

Plaintiffs allege:

COMMON ALLEGATIONS

Ex. R2

1.

Plaintiffs SRPR, LLC, and Troy Lodge, LLC, are Oregon limited liability companies. Mark S. Hemstreet is the sole member of each plaintiff, and Shilo Management Corporation is the manager of each plaintiff. SRPR, LLC, owns real property in Wallowa County, Oregon, known as the "Shilo Ranch." Troy Lodge, LLC owns real property in Troy, Oregon known as the "Troy Lodge."

2.

Defendants are husband and wife and residents of Union County, Oregon. Defendants own real property in Troy, Wallowa County, Oregon described in Exhibit A attached hereto and incorporated herein by reference.

3.

Defendant Warren Morris was an employee of Shilo Ranch from on or about January 1, 1998, through January 20, 2005. Plaintiff Robin Morris was an employee of Shilo Ranch from on or about January 1, 1998, through November 21, 2002.

4.

As part of defendants' responsibilities as employees, defendants were authorized to purchase and did purchase items for Shilo Ranch and/or Troy Lodge. From January 1, 2002, through January 20, 2005, defendants purchased numerous items under the false pretense that such items were being purchased for Shilo Ranch and/or Troy Lodge, when in fact such items were for defendants' personal use and benefit and/or were taken from Shilo Ranch and/or Troy Lodge for defendants' personal use and benefit. Defendants misrepresented to plaintiffs the actual purpose for such purchases and actively and fraudulently concealed the fact that such purchases were for defendants' personal benefit. Plaintiffs paid for such items, or Shilo Management Corporation paid for such items on behalf of plaintiffs. A list of the items owned by plaintiffs but taken by defendants for their personal use and benefit without plaintiffs' knowledge or consent is attached as Exhibit B attached hereto and incorporated herein by reference. Plaintiffs did not discover that such items were taken by defendants until after defendants' employment with Shilo Ranch had terminated.

||||||||||

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5.

In December, 2001, Mark Hemstreet conveyed to Warren and Robin Morris the lot described in Exhibit A. In April, 2004, Mark Hemstreet conveyed to Warren Morris a 2001 Dodge pickup (VIN #187M733711J603013). The Troy Lot and the Dodge Pickup were conveyed by Mark Hemstreet to Warren Morris and Robin Morris for what Mark Hemstreet then believed were years of loyal and honest service. At the time the conveyances were made Mark Hemstreet was unaware that in fact Warren and Robin Morris had been stealing from him and lying to him for years.

6.

Defendants constructed a log home on the property described in Exhibit A. Many of the items listed in Exhibit B were used in the construction of the log home and/or were incorporated into the construction of the log home, all without plaintiffs' knowledge or consent. As part of the construction of the log home, defendants cut logs from the property of Shilo Ranch, without plaintiffs' knowledge or consent, and incorporated such logs into the construction of the log home. Defendants wrongfully used their own labor as well as labor of other Shilo Ranch employees to construct the log home during times when Shilo Ranch and /or plaintiffs were paying for such labor. Defendants also wrongfully used equipment owned and/or leased by plaintiffs to transport logs and to construct the log home.

FIRST CAUSE OF ACTION
(Conversion)

7.

Plaintiffs reallege paragraphs 1 - 6.

8.

Defendants intentionally exercised dominion and control over the items of personal property owned by plaintiffs, some of which property is particularly

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described in Exhibit B. Other such property includes plaintiffs' motor vehicles, trailers, and other equipment not listed in Exhibit B. Defendants exercised such dominion and control over said items without plaintiffs' knowledge and consent.

9.

Defendants' exercise of dominion and control over plaintiffs' personal property deprived plaintiffs of their right to exercise dominion and control over said property.

10.

Defendants' interference with plaintiffs' right to exercise dominion and control over their personal property caused plaintiffs to suffer substantial inconvenience and expense.

11.

Defendants' wrongful exercise of dominion and control over plaintiffs' personal property caused plaintiffs damages in the approximate amount of $50,000.00, the exact amount to be determined at trial.

SECOND CAUSE OF ACTION
(Conversion of Services)

12.

Plaintiffs reallege paragraphs 1 - 11.

13.

Defendants intentionally exercised dominion and control over defendants' services to plaintiffs, for which they were paid by plaintiffs, and defendants intentionally exercised dominion and control over services of other employees of plaintiffs over which defendants had authority, thus converting those services from the use and benefit of plaintiffs (who paid for the services), to the use and benefit of defendants. Defendants did so without plaintiffs' knowledge and consent.

||||||||||

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14.

Defendants' wrongful use of their authority to deprive plaintiffs of the benefit of defendants' services and services of other employees of plaintiffs over which defendants had authority deprived plaintiffs of the benefit of those services and caused plaintiffs to suffer substantial inconvenience and expense.

15.

Defendants' wrongful exercise of dominion and control of such services caused plaintiffs damages in the approximate amount of $20,000.00, the exact amount to be determined at trial.

THIRD CAUSE OF ACTION
(REPLEVIN)

16.

Plaintiffs reallege paragraphs 1 - 15.

17.

Defendants should be required to return to plaintiffs the items listed in Exhibit B.

18.

Plaintiffs have no adequate remedy at law with respect to the items listed in Exhibit B.

FOURTH CAUSE OF ACTION
(Trespass To Chattels)

19.

Plaintiffs reallege paragraphs 1 - 17.

20.

Defendants' interference with plaintiffs' use of plaintiffs' chattels set out above caused plaintiffs damage in the approximate sum of $50,000.00, the exact amount to be determined at trial.

||||||||||

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FIFTH CAUSE OF ACTION
(Breach Of Contract)

21.

Plaintiffs reallege paragraphs 1 - 20.

22.

Defendants breached their employment contract with plaintiffs by failing to work for plaintiffs in good faith, by converting and trespassing against chattels owned by plaintiffs, and by fraudulently misrepresenting to plaintiffs that defendants were working for plaintiffs during hours, days and weeks when in fact, they were working for their own personal benefit.

23.

As a result of defendants' breach of contract, plaintiffs have suffered economic damages in the approximate sum of $205,000.00, the exact amount to be determined at trial.

SIXTH CAUSE OF ACTION
(Unjust Enrichment)

24.

Plaintiffs reallege paragraphs 1 - 23

25.

Defendants have been unjustly enriched in the sum of $205,000,00.

SEVENTH CAUSE OF ACTION
(Constructive Trust)

26.

Plaintiffs reallege paragraphs 1 - 24.

27.

This court should impose a constructive trust for the benefit of plaintiffs on:

a. The lot in Troy, Oregon, more particularly described in Exhibit A;
b. The 2001 Dodge pickup truck, VIN #:187M733711J603013;
c. All of the items listed in Exhibit B.

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EIGHTH CAUSE OF ACTION
(Timber Trespass)

28.

Plaintiff realleges paragraph 1 - 27 above.

29.

Plaintiff SRPR, LLC, is entitled to treble damages for the cutting of the logs and related damage under ORS 105.810, and to reasonable attorney fees incurred herein pursuant to ORS 105.810(2).

30.

Plaintiffs intend to seek punitive damages with respect to plaintiffs' First, Second, Third, Fourth, and Eighth Causes of Action.

WHEREFORE, plaintiffs prays for entry of judgment in favor of plaintiffs and against defendants as follows:

(a) For judgment in favor of plaintiffs and against defendants pursuant to plaintiffs' First and Fourth Causes of Action in the approximate amount of $50,000.00, or an amount to be proven at trial, and to include prejudgment interest at the legal rate of interest.

(b) For judgment in favor of plaintiffs and against defendants pursuant to plaintiffs' Second Cause of Action in the amount of $20,000.00, or an amount to be proven at trial, and to include prejudgment interest at the legal rate of interest.

(c) For judgment in favor of plaintiffs and against defendants pursuant to plaintiffs' Third Cause of Action requiring defendants to return to plaintiffs the items listed in Exhibit B attached hereto;

(d) For judgment in favor of plaintiffs and against defendants pursuant to plaintiffs' Fifth and Sixth Causes of Action in the approximate sum of $205,000.00, or an amount to be proven at trial;

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(e) For judgment in favor of plaintiffs and against defendants pursuant to plaintiffs' Seventh Cause of Action for a constructive trust over the property listed in paragraph 27;

(f) For judgment in favor of plaintiffs and against defendants pursuant to plaintiffs' Eighth Cause of Action for the approximate amount of $16,500.00, or an amount to be proven at trial;

(g) For judgment awarding plaintiffs prejudgment interest on all of the sums set out above;

(h) For plaintiffs' costs, disbursements and reasonable attorney fees incurred herein; and

(i) For other relief the court determines to be fair and equitable.

DATED this 15th day of November, 2005.

D. Rahn Hostetter, OSB # 78247
Attorney for Plaintiff

D. RAHN HOSTETTER
Attorney at Law
203 E. Main Street, P. O. Box 400
Enterprise, OR 97828
(541) 426-4584

EXHIBIT A

A tract of land adjacent to the Town of Troy, Wallowa County, Oregon, and as it appears on the Plat of Survey by Verne Russell, LS 427, dated April 16, 1966, described as follows:

COMMENCING at a point on the South line of Tract owned by Greasy King Music, Inc., which point is 673.46 feet South and 99 feet East of the Northwest corner of the NE¼NW¼ of Section 4, Township 5 North, Range 43 East, of the Willamette Meridian, Wallowa County, Oregon; running thence South a distance of 70 feet; thence East a distance of 99 feet; thence North a distance of 70 feet to the Southeast corner of said Greasy King Music, Inc. Tract; thence West a distance of 99 feet to the point of beginning.

Exhibit "B"

Description
Plasticap Coil Gun
Porter Cable 1500 Tile Saw & Stand
Porter Cable Palm Nailer
Jet DC 1100 Dust Collector
Pennofin "Blue" Log Jam
Rigid Power Threader on stand & Pipe Vise
Orca 5 pc. Cabinet Door Profile Kit
Porter Cable Profile Sander Kit
SK Tool Book
(4) Scaffold Plank
(2) DW9096 DeWalt 18V Battery
Skil Saw 77
Porter Cable 14" 1410 Cut Saw
Stihl FS 110 Weed Eater Sn# 261953239
Snowmobile Skis & Air Filterst
Service Snowmobile Arctic Cat
21 pieces Rhino Decking
18 pieces Mahogany
Various windows
Backer Rod
Chinking & Grip Strip
Pennofin Log Jam
Ash, Walnut Wood
Misc. Wood
Mission Table Plans
Cherry Wood
Walnut, Maple Wood
Champion Bowl/Tank Set
2068 4 Panel Pine Interior Door
416 1x6x6 DE Cedar Fence
Miscellaneous Lumber (ex.6b,c,&d)
Hitachi Compound Slide
(2) Jet 4 pc. Casters
Porter Cable 3 HP 4 Gallon Air Compressor & Hose
Coined Dual Deep Truck Rims
Various SK Tool sets in the amount of
Misc. Furniture (part of the est. $3000)
1982 Chevrolet Pick Up
Various Diameter Logs (used to frame Troy log cabin)

Log Jack
Honda Mower #MZCG-697612
Side Mount Tool Box
Air Riveter
Air Cut Off Tool
Misc. parts for Jeep Cherokee
Maax Tub and Shower Surround
(2) 3068 Fiberglass Doors (6 9/16)
510 JOHN DEERE BACKHOE LOADER

AGENDI ITEM K
PUBLIC FORUM

****SEE BINDER: JUNE EQC BOOK 2****

State of Oregon

Department of Environmental Quality Memorandum

Date: May 29, 2007

To: Environmental Quality Commission

From: Stephanie Hallock, Director S. Hallock

Subject: Agenda Item L, Informational Item: City of Portland Combined Sewer Overflow (CSO) Control Program: Presentation by the City on Current Activities
June 22, 2007 EQC Meeting

Purpose of Item

To provide the Commission with up-to-date information on the status of the City of Portland's implementation of its Combined Sewer Overflow (CSO) control program. Focus will be on major current construction activities and the successful functioning of the recently completed west side Willamette control facilities.

Background Summary

A large part of the City of Portland is served by a combined sewer system that historically discharged large quantities of untreated sewage and storm water to the Columbia Slough and the Willamette River during most rain events. Such overflows are a significant public health and water quality concern.

In 1991, the Commission and the City entered into a legal agreement (Stipulation and Final Order, or SFO) which established the framework for a twenty-year CSO control program that would drastically reduce overflow frequency and volume. The agreement was amended in 1994 (the ASFO).

Now in the final five years of the program, the City has made significant progress in controlling CSOs. All milestones and requirements of the SFO and ASFO have thus far been met.

The presentation by City of Portland staff will summarize accomplishments of the CSO control program thus far, and focus on the design and construction of the control facilities for the Willamette sewer basins. The placement of massive sewage conveyance facilities in a densely developed urban setting and complex geological environment poses great challenges.

Over the course of implementation of the CSO control program, the Department has maintained close coordination with the City on a host of policy, regulatory and technical matters. The Department also provides engineering review of the sewerage facilities constructed as part of the City's program.

Attachments

A. DEQ Fact Sheet on Portland CSOs giving additional background information
B. Summary Report from the City to accompany the presentation

Available Upon Request

- 1994 ASFO and original 1991agreement
- CSO Management Plan (City of Portland, 1994), or Executive Summary
- CSO Management Plan Update (City of Portland, 2001)
- Numerous engineering and other technical analyses developed as part of the program

Additional Resource

The City's Bureau of Environmental Services maintains a very informative Website about the CSO control program at www.portlandonline.com/bes/

Approved:

Section: Neil Mullane

Division: _____

Report Prepared By: Richard J. Santner

Phone: 503-229-5219

Fact Sheet

Portland Combined Sewer Overflow (CSO) Management

Background

For many years, a large part of the City of Portland, about 30,000 acres, has been served by a combined sewer system in which sanitary sewage from homes and businesses, and stormwater from streets, roofs and driveways flow into a single set of sewer pipes. During periods of dry weather, all of the sanitary sewage is delivered by the sewer system to the Columbia Boulevard Wastewater Treatment Plant (CBWTP) for proper treatment and discharge to the Columbia River.

However, almost any time it rains, the inflow of stormwater into the combined sewers causes the capacity of the large interceptor sewers that run along the Willamette River to be exceeded, and a combination of stormwater and untreated sanitary sewage is discharged to the river. (In the past, there were similar frequent CSO discharges to Columbia Slough but these have been virtually eliminated as of December 2000.)

While CSO discharges raise several environmental concerns, the most important is the risk of contracting disease from pathogenic organisms that may be found in raw sanitary sewage. Such risk impairs the beneficial use of waters subject to CSOs for safe contact recreation.

In regulatory terms, the CSO discharges result in violation of the Water Quality Standards established by the Environmental Quality Commission (EQC) for bacteria, floatables and solids, and other pollutants. The Wastewater Discharge Permit issued to Portland by DEQ for the CBWTP expressly

To address these violations, the EQC and the City of Portland entered into a mutually agreed upon enforcement order called a Stipulation and Final Order (SFO) in August of 1991. The SFO was amended in August 1994.

The Amended Stipulation and Final Order (ASFO) requires that the frequency of CSOs to the Willamette River be drastically reduced by the year 2011. A detailed compliance schedule of implementation milestones is set forth, with stipulated penalties identified for failure to meet the schedule or to attain the level of CSO control required.

Portland complies with CSO Order

The City of Portland has thus far met all CSO compliance schedule milestones set forth in the original and amended versions of the Order.

The City has made substantial progress constructing the stormwater inflow reduction facilities that are intended to reduce combined sewage volume. These "Cornerstone Projects" include stormwater infiltration sumps, down spout disconnections, sewer separations and stream diversions.

Construction of the major CSO control facilities for the Columbia Slough sewer basins--the "Columbia Slough Big Pipe" and appurtenances-- was completed at the end of 2000. Overflows to the Slough will now occur only with the largest storms, averaging about three overflow events per decade.

Construction of the massive CSO control facilities for the west side Willamette River sewer basins--the "West Side Big Pipe"-- was completed in December 2006.

Construction of the even larger CSO control facilities for the east side Willamette River sewer basins began in May 2006, with completion scheduled for December 2011.

EQC--Portland CSO chronology

August 1991

The EQC and the City execute original SFO to address permit violations caused by CSOs. SFO requires that CSO discharges to Columbia Slough and Willamette River be

controlled except when 10 year return summer storm/5 year return winter storm or larger occur. Development of CSO Management Plan is required.

June 1993
Draft Management Plan is completed. It analyzes facilities and costs needed to meet level of CSO control specified in SFO, and other more and less stringent levels of control for the Willamette River discharges.

November 1993-March 1994
The non-decision making "Collaborative Process" Committee (2 EQC members, 2 City Council members, DEQ Director, a Portland Bureau of Environmental Services senior manager) hold a series of well-attended public meetings to evaluate options identified in the Draft Management Plan. Committee recommends to EQC and City Council that a less stringent level of CSO control than specified in the SFO be adopted for Willamette discharges, but that Columbia Slough control requirement remain as in SFO.

June-August 1994
EQC and Council concur in Collaborative Process Committee recommendation and execute ASFO. CSO control requirement for Willamette is set at 3 year return summer storm and 4-in-year winter storm because it is the most "cost effective" level of control. This reduces estimated overall CSO control program cost from about $1billion to about $700million (in 1993 dollars).

December 1994
City completes Final CSO Management Plan, which elaborates on facilities needed to meet ASFO. EQC approves "Schedule and Control Strategy" set forth in Final Plan in April 1995.

January 1996
EQC adopts new "Bacteria Rule" Water Quality Standard which establishes 10 year summer/5 year winter storm prohibition of raw sewage discharges as regulatory standard, but allows EQC to approve less stringent standard for individual CSO systems. DEQ considers prior EQC concurrence in ASFO and Final Management Plan to constitute such approval for Portland's CSOs to Willamette.

1995-2007
Ongoing "Cornerstone Projects" (sewer separations, storm water sumps, down spout disconnections, stream diversions, sewer system inline storage optimization) make significant progress to remove storm water from combined sewer system and reduce volume of CSO discharges.

March 1998
NWEA and City settle 1991 citizen lawsuit on CSOs. Terms of settlement include commitment by City to implement ASFO and plaintiffs standing to seek relief from court for City's failure to comply with ASFO schedule.

2000-2001
Columbia Slough CSO control facilities completed December 2000. Seven CSO discharge points on the Willamette eliminated by December 2001

December 2001
City prepares CSO Management Plan Update pertaining to configuration of Willamette sewer basins control facilities.

2001-2007
Major west side Willamette control facilities begun in 2001 were completed in 2006. Construction of major east side control facilities begun with completion by 2011.

Alternative Formats
Alternative formats of this document can be made available. Contact DEQ Public Affairs for more information (503) 229-5696.

Combined Sewer Overflow Program

Progress Report

January 2007

working for clean rivers

Environmental Services

Portland Oregon

working for clean rivers

On January 1, 2007, the City of Portland's 20-year program to control combined sewer overflows (CSOs) to the Columbia Slough and Willamette River entered its 16th year. Our CSO abatement program remains on schedule and on budget. There were several significant achievements in 2006.

In September, staff from the city and West Side CSO Project contractor Impregilo/Healy celebrated the successful completion of the Swan Island Pump Station, a key part of the West Side project. The project also includes a 3.5-mile, 14-foot diameter tunnel running along the west bank of the Willamette and crossing underneath the river where it connects to the Swan Island Pump Station. As of December, the tunnel was capturing combined sewage on the west side of the river and conveying it through the pump station to the Columbia Boulevard Wastewater Treatment Plant. The $390-million West Side CSO Project is the largest capital construction project in Portland's history.

In May, Environmental Services broke ground on an even larger project - the $464-million East Side Big Pipe. East side project contractor Kiewit-Bilfinger Berger will complete the six-mile, 22-foot diameter CSO tunnel in 2011.

In November, Environmental Services finished pipeline installation along the Sunset Highway and on upper West Burnside Street, which completed the Tanner Creek Stream Diversion Project. Work on the six-phase project started in 1996. The new pipeline takes Tanner Creek basin stream flows out of the combined sewer system and carries it directly to the Willamette River.

Since 1991, Environmental Services has met every program requirement and milestone established back in 1994. The many CSO projects we've completed have reduced annual overflow volume by nearly four billion gallons, which means we can take pride in having cut discharges by two-thirds. When we finish construction in 2011, the combined sewer system will overflow on average only four times each winter and once every three summers instead of nearly every time it rains.

These projects also support Portland's economy. Construction of the West Side CSO projects created 450 construction-related jobs and the city purchased goods and services from more than 300 local businesses. By the end of 2006, the city had used more than 50 local contractors on the East Side CSO Project and we anticipate many more local contracting opportunities in the final five years of construction.

2006 was a year of great accomplishment toward our goal of a cleaner Willamette River.

Dean Marriott, Director
Environmental Services

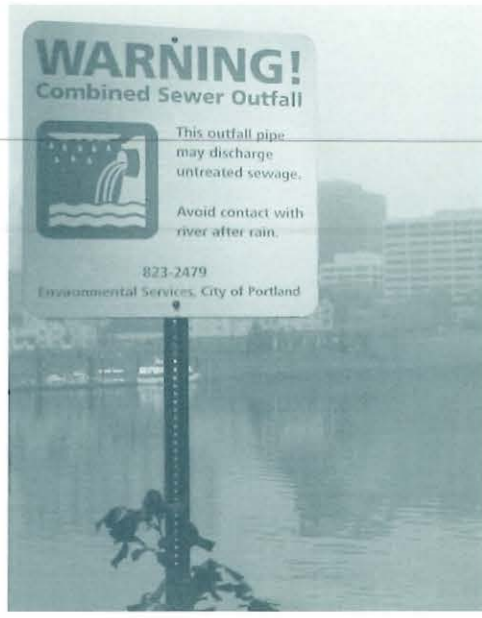
Cover photo Sue Bednarz:
Opera Shaft guide walls

Controlling Combined Sewer Overflows

Portland's early sewers collected sewage from homes and businesses and stormwater runoff from streets in the same pipes. The mixture of sewage and stormwater in this combined sewer system drained directly to the Willamette River and the Columbia Slough without treatment.

In the early 1950s, the city installed large pipes next to the river and slough to intercept sewage and carry it to Portland's first sewage treatment plant, the Columbia Boulevard Wastewater Treatment Plant. When it's not raining, all the sewage goes to the plant for treatment. But during wet weather, stormwater fills the combined sewer pipes to capacity and some sewage overflows.

In 1994, the City of Portland and the State of Oregon agreed on an Amended Stipulation and Final Order (ASFO) that requires the city to control CSOs to the Columbia Slough by 2000 and to the Willamette River by 2011. The CSO abatement program has several phases.



Cornerstone Projects

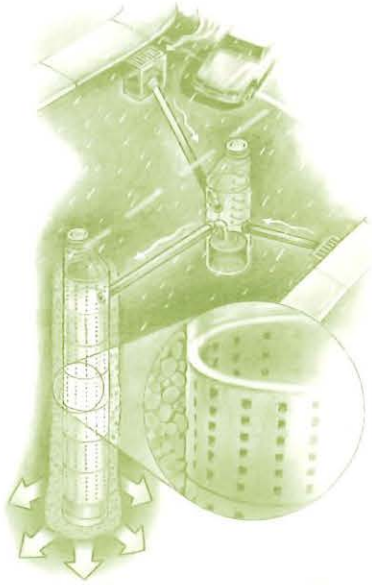
The city began work on the CSO Facilities Planning Project in 1990, and began construction on the Cornerstone Projects in 1993. The projects included sewer separation, sump installation, downspout disconnection and stream diversion. The completed Cornerstone Projects divert more than two billion gallons of stormwater annually from the combined sewer system. The total cost for Cornerstone Projects was about $146 million.

Sewer Separation

Environmental Services eliminated combined sewers in key neighborhoods by installing new pipes to separate stormwater from sewage.

Sump Installation

Environmental Services installed about 3,000 sumps and sedimentation manholes in combined sewer areas throughout east Portland. Residential street runoff flows into manholes that trap sediment and pollutants. The stormwater then flows into sumps and soaks into the ground.



Sumps collect stormwater allowing runoff to soak into the ground.

Stream Diversion

In 2006, Environmental Services completed construction of a pipeline that diverts Tanner Creek and smaller west hills streams out of the combined sewer system. The city piped creeks into the sewer system decades ago to make way for development. The completed Tanner Creek project removes about 165-million gallons of stormwater annually from the combined sewer system.

Downspout Disconnection

The city asks residents of some neighborhoods in the combined sewer area to disconnect downspouts from the combined sewer system and redirect roof water to gardens and lawns. Residents earn $53 per downspout if they do the work, or community groups and local contractors will do it for free. Community groups earn $13 for each downspout they disconnect. Nearly 49,000 downspouts have been disconnected, removing more than 1.2-billion gallons of stormwater per year from the combined sewer system.

Sustainable Stormwater Management Program

Buildings, roads, parking lots and other hard surfaces prevent rain from soaking into the ground. If stormwater that washes over these impervious surfaces isn't properly managed, it can carry pollutants into rivers and streams. Stormwater runoff can also cause flooding and erosion, destroy habitat and contribute to combined sewer overflows (CSOs). The City of Portland promotes projects that mimic natural systems and integrate stormwater into building and site development to reduce damage from urban stormwater runoff.

The natural system approach also helps replenish groundwater and restore healthy watershed function. The city often works with private property owners, school districts and non profit groups on projects that keep stormwater out of the sewer system. These partnerships let the community share in solutions that enhance the urban environment by viewing stormwater as a resource rather than a waste.

Ecoroofs

Ecoroofs replace conventional roofing with a layer of foliage in a growing medium over a synthetic, waterproof membrane. Ecoroofs decrease stormwater runoff and insulate to save energy. They also absorb carbon dioxide, cool urban heat islands, filter air pollutants, add habitat for birds and insects and provide urban greenspace.

Environmental Services provides technical assistance and support for building owners considering ecoroofs. City grants have funded ecoroofs at 14 sites ranging from high rise apartment complexes and office buildings to small park shelters and community projects.

Green Streets

Portland is building sustainable street projects around the city to better manage stormwater runoff and enhance neighborhoods. Green Streets include stormwater curb extensions landscaped with plants that filter pollutants from stormwater runoff, swales that infiltrate and store stormwater runoff, lowered planter boxes, permeable pavement and street trees.

Innovative Wet Weather Demonstration and Other Inflow Projects

The Innovative Wet Weather Program (IWWP) promotes stormwater management projects that contribute to healthy Portland watersheds. U.S. Environmental Protection Agency (EPA) funding supports over 30 public and private projects that demonstrate sustainable, low-impact stormwater management solutions.

Rain gardens, swales and stormwater planters are examples of sustainable stormwater management projects that help the city meet requirements to control CSOs.

Stormwater planters collect and treat stormwater on site, allowing runoff to soak into the ground.

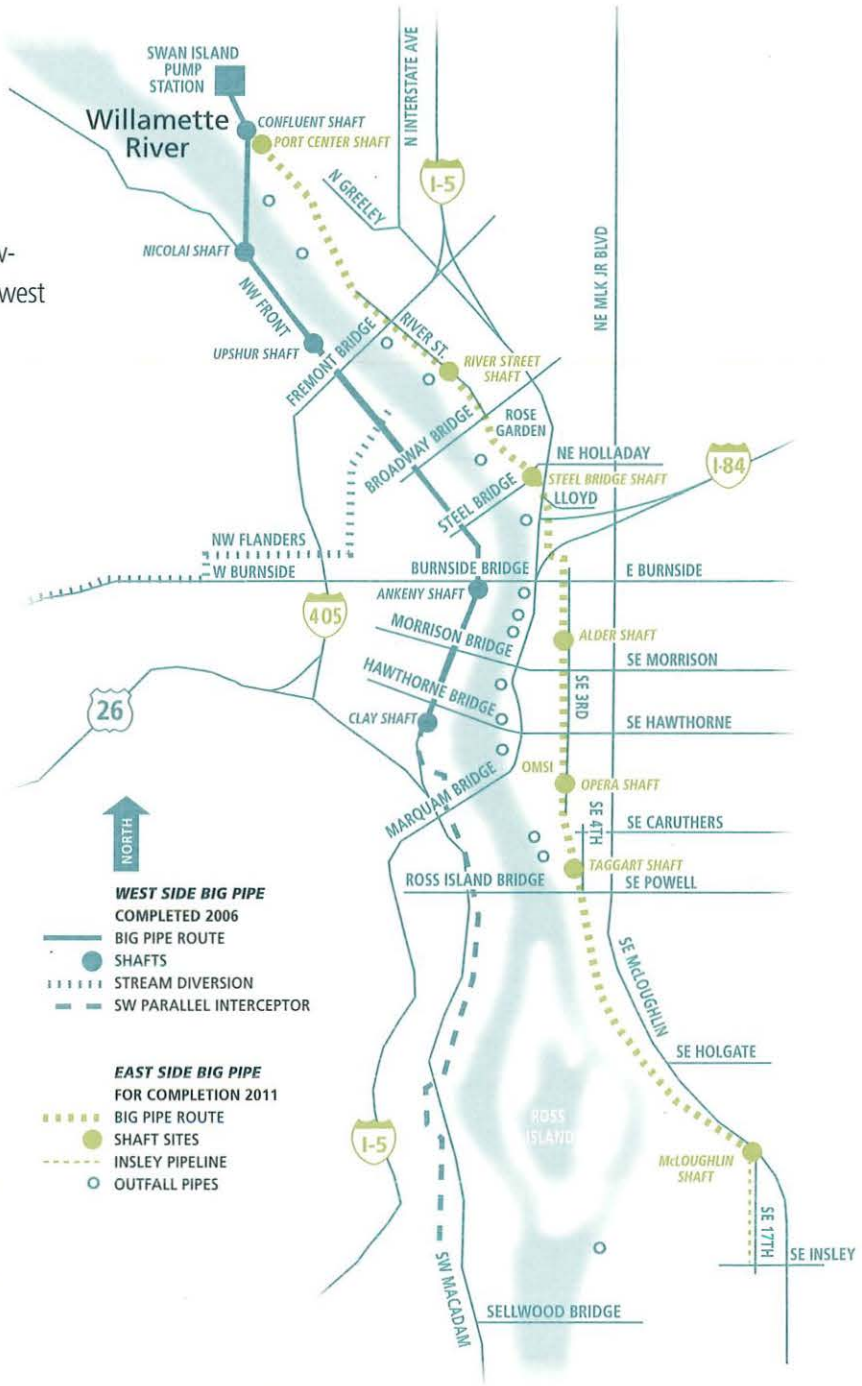
Columbia Slough Projects

Environmental Services has completed projects that reduced CSOs to the Columbia Slough by more than 99%. Construction ended on the Columbia Slough Big Pipe in October 2000. The pipeline collects the sewage and stormwater that once overflowed into the slough when it rains. Environmental Services expanded treatment capacity at the Columbia Boulevard Wastewater Treatment Plant to accommodate the added flow from the Columbia Slough Big Pipe. The total cost of the Columbia Slough projects was about $164 million.

Willamette River Projects

West Side Big Pipe

The West Side Big Pipe Project consists of a 3.5-mile CSO tunnel, five tunnel access shafts, the Southwest Parallel Interceptor, several other connecting pipelines, and the Swan Island Pump Station. Environmental Services completed the project in 2006 and the 14-foot diameter West Side Big Pipe is now in service controlling CSOs from 16 outfall pipes on the west side of the Willamette River.



East Side Big Pipe

In spring 2006, the city's East Side Big Pipe contractor, Kiewit-Bilfinger Berger (KBB), started work on the East Side Big Pipe projects. KBB will use a 300-foot long tunnel boring machine manufactured by the German firm Herrenknecht to construct the 6-mile long, 22-foot diameter tunnel. The tunnel will parallel the east bank of the Willamette River from SE 17th and McLoughlin to Swan Island at an average depth of 150 feet.

This is the final, and largest, project in the CSO abatement program. When the East Side Big Pipe is complete in 2011, it will carry sewage and stormwater to the Swan Island Pump Station and will control CSOs from the remaining 19 outfall pipes. The pump station will have the capacity to pump up to 220-million gallons per day to the Columbia Boulevard Wastewater Treatment Plant.

East Side Big Pipe Schedule ✔ *indicates on schedule*

February 2003	Design Team Begins ✔
July 2004	Preliminary Design - Completed ✔
January 2006	Final Design Completed ✔
March 2006	Shaft Construction Begins ✔
May 2007	Tunnel Excavation Begins
December 2011	East Side Project Completed

SE 3rd Avenue, micro tunnel shaft construction

Community Enhancement

Through the Community Benefit Opportunity (CBO) Program, Environmental Services works with neighborhoods affected by CSO construction to develop projects that improve neighborhood livability.

In 2006, Environmental Services began accepting project nominations for the East Side CBO Program. The city spent nearly $1 million on projects in neighborhoods affected by West Side Big Pipe construction. The projects included neighborhood tree plantings, revegetation, pedestrian and bicycle paths, access to the river, a community garden, and a living water garden schoolyard restoration.

Nearly $2 million is available through the East Side CBO Program for projects to benefit east side communities. An advisory committee of neighborhood, business, environmental, and other community stakeholders will recommend which projects to fund.

Clean and Healthy River Strategy

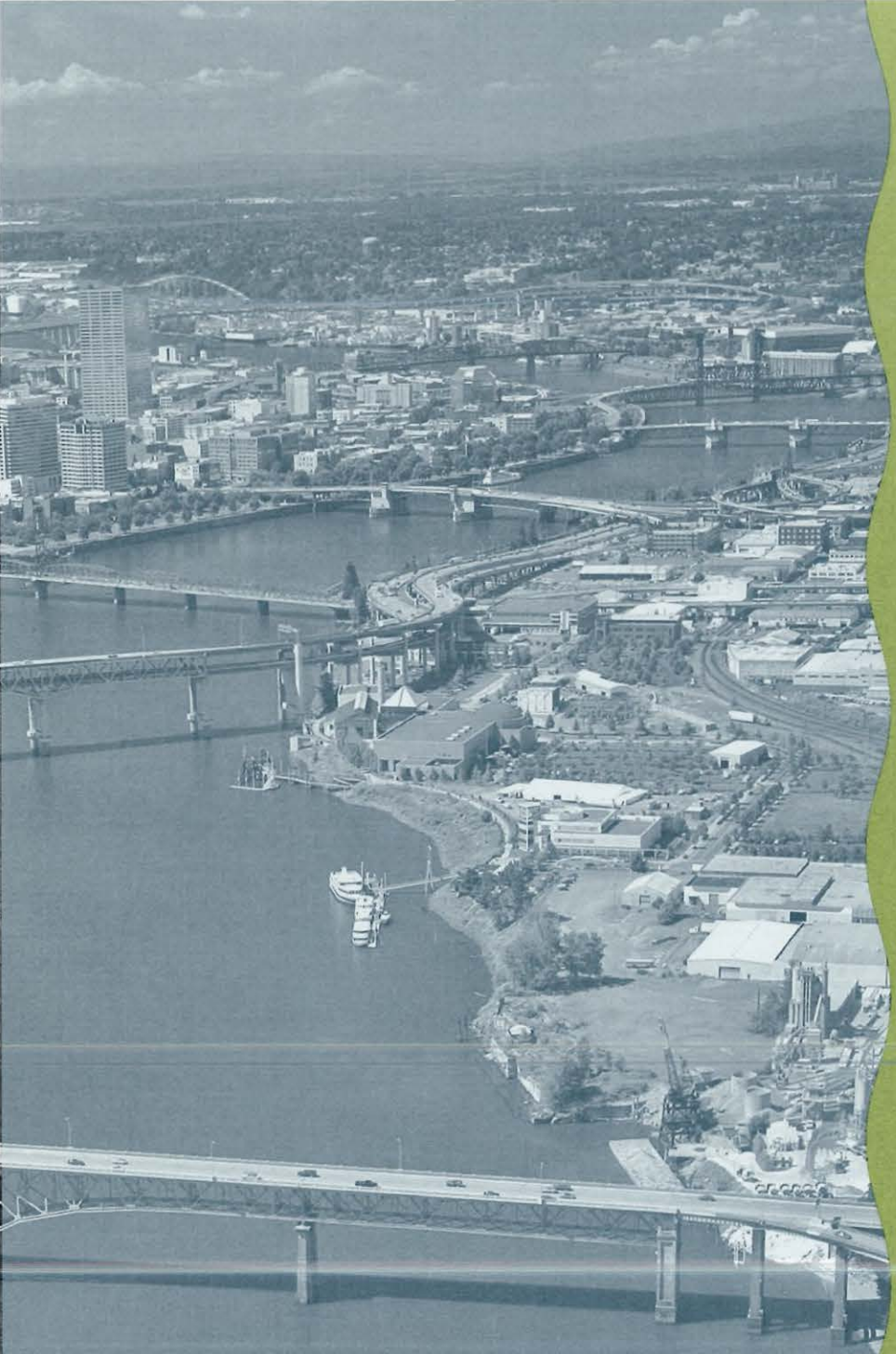
The Clean and Healthy River Strategy is a comprehensive effort under the River Renaissance Program to clean up the Willamette River. This includes creating healthier tributaries and watersheds, improving habitat for endangered fish and creating a livable, sustainable community. Reducing CSOs is a key part of the strategy. The Clean and Healthy River Strategy also includes:

- ✔ Expanding Portland's program to disconnect residential downspouts from the combined sewer system;
- ✔ Encouraging commercial landowners to install swales, vegetated ponds, and other facilities to store and filter stormwater runoff;
- ✔ Planting more street and landscape trees to absorb rainfall, filter stormwater runoff, and shade streams; and
- ✔ Offering incentives to homeowners to reduce stormwater runoff from private property.

Paying To Control CSOs

The city will have spent an estimated $1.4-billion by the time CSO construction is complete in December 2011. Residential and commercial sewer rates pay for the program. Very little federal funding is available and sewer rates are gradually increasing. The estimated average residential sewer bill in December 2006 was $45.25 a month. The projection for the average monthly bill in December 2011 is $59.42.

Environmental Services is committed to meeting its regulatory requirement to complete CSO construction by the 2011 deadline. The CSO abatement program also reflects the City of Portland's commitment to clean rivers and healthy watersheds, and to making Portland a livable, sustainable community for future generations.



ENVIRONMENTAL SERVICES
CITY OF PORTLAND
working for clean rivers

Sam Adams, Commissioner
Dean Marriott, Director

Environmental Services
1120 SW Fifth Avenue
Portland, Oregon 97204

503-823-7740

Information on
Big Pipe Projects:
www.cleanriverworks.com

Information on
stormwater management:
www.cleanriverspdx.org

To help ensure equal access to city programs, services and activities, the City of Portland will reasonably modify policies/procedures and provide auxiliary aids/services to persons with disabilities. Call 503-823-7740 with such requests.

Printed on recycled paper.
CSO 0702

Portland CSO Program Update

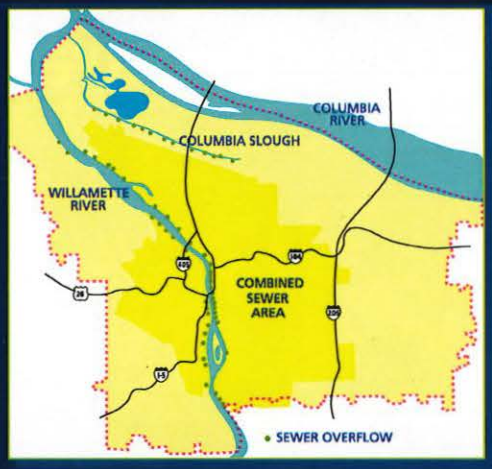
Environmental Quality Commission
June 22, 2007

Presentation Outline

- Program Overview and Accomplishments
- West Side Willamette Implementation
- Winter 2006/07 Performance Results
  Virgil Adderley
- East Side Willamette Construction
  Paul Gribbon
- Conclusions

Combined Sewer System

- Serves oldest neighborhoods
- Covers 42 sq. miles
- 35% of City area
- Serves 60% of population
- Separated areas flow through combined system to plant



CSO Control Methods

- Stormwater reduction through Cornerstone Projects and Green Solutions
- Capture and convey CSOs through large tunnel storage and pump stations
- Wet Weather treatment at Columbia Boulevard Wastewater Treatment Plant

CSO Program Milestones

ASFO Allowable Overflows
Winter: 4 per year
Summer: 1 Every 3 years

Program Accomplishments

- **Cornerstone Projects - completed**
  - Cost-effective stormwater inflow control measures
- **Columbia Slough CSO Projects - completed**
  - Large storage conduit, pumping and treatment
- **West Side Willamette CSO Projects – completed**
  - Tunnel, shafts, and Swan Island Pump Station
- **East Side Willamette CSO Projects - underway**
  - Tunnel, shafts, and pipelines

Cornerstone Projects

Eliminated 2 billion gallons of CSO Volume per year

- Downspout Disconnection Program
- Infiltration Sumps (UICs)
- Stormwater Separation with Water Quality Facilities
- Tanner Creek Stream Diversion
- Total Cost: $145 million

Columbia Slough CSO Program

Eliminated 99.6% combined sewage into Columbia Slough

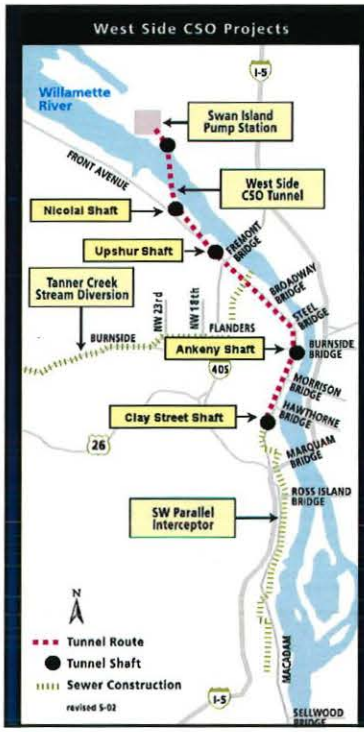
All 13 outfalls controlled by December 2000

Recently contained large 25 year storm (Nov 6) – no overflow.

- **Total Cost: $160 million**

Columbia Slough CSO Program

- Columbia Slough Big Pipe
- Influent Pump Station
- Columbia Boulevard Wastewater Treatment Plant Upgrades
  - -Wet Weather Primaries
  - -Disinfection / De-chlorination
  - -New Outfalls to the Columbia River



West Side CSO Implementation

- Tunnel - 3.5-miles long, up to 120 feet deep, 14-foot diameter
- Five Drop Shafts & Consolidation Piping
- Swan Island Pump Station -220 MGD Pump
- SW Parallel Interceptor
- Collection System Integration and Operation


Clark - South
Lewis - North

West Side Summary

- ASFO Milestone: December 1, 2006
- System Operational: September 14, 2006
- Construction period: 48 months
- Contractor: Impregilo/S.A. Healy jv
- Total Project Cost $380,000,000

Winter 2006-07 Performance

- ASFO Performance Criteria
- Columbia Slough Performance
  - November 6, 2006 Storm
- Westside Willamette Performance
  - December 14-15, 2006 Storm
  - January 2-3, 2007 Storm

All controlled outfalls have continuous overflow monitoring

ASFO Performance Criteria

Eliminate CSO's for storms smaller than...

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
OF THE STATE OF OREGON

DEPARTMENT OF ENVIRONMENTAL QUALITY, OF THE STATE OF OREGON, Department, v. CITY OF PORTLAND, Respondent.) AMENDED STIPULATION AND FINAL ORDER No. WQ-NWR-91-75 MULTNOMAH COUNTY

WHEREAS:

1. On August 5, 1991, the Department of Environmental Quality (Department or DEQ) issued National Pollutant Discharge Elimination System (NPDES) Waste Discharge Permit Number 100807 (Permit) to the City of Portland (Respondent), pursuant to Oregon Revised Statutes (ORS) 468B.050 and the Federal Water Pollution Control Act Amendments of 1972, P.L. 92-500, as amended. The Permit authorizes the Respondent to construct, install, modify or operate waste water treatment control and disposal facilities (facilities) and discharge adequately treated waste waters into the Columbia River, Columbia Slough and Willamette River, waters of the state, in conformance with the requirements, limitations and conditions set forth in the Permit. The Permit expires on March 31, 1996.

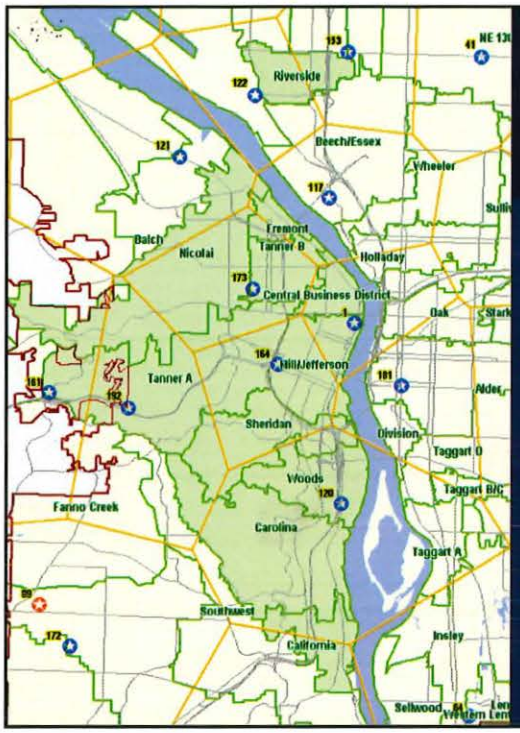
- Columbia Slough
  - 5-year Winter Storm
  - 10-year Summer Storm
  - ~ 2.5 inches in 24-hours
  - ~ 99.6% volume/year control
- Willamette River
  - 4-per-Winter storm
  - 3-year Summer Storm
  - ~ 1.2 inches in 24-hours
  - ~ 94% volume/year control

Columbia Slough Performance

- November 4-6, 2006 storm contained
  - 5-inches of rain in two days
  - Larger than a 25-year storm
  - No overflow to Columbia Slough
  - Confirms Operations & System improvements
- No overflows since 2005
  - December 2005 – Pumping operations changed
  - October 2002 – Improved North Portland CSO

Westside Willamette First Winter Performance

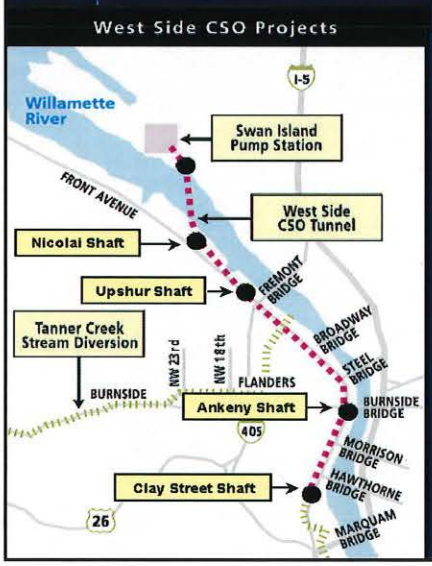
- Four storms met or exceeded Willamette ASFO Criteria
- Two storms caused Westside to overflow
  - December 14-15, 2006 Storm
  - January 2-3, 2007 Storm
- Both storms exceeded ASFO 4-per-winter criteria by more than 25%



Portland's Rain Gages

- Over 40 raingages across City
- 12 gages serve Westside CSO area
- Gage data applied to area of influence
- Hourly data online at USGS site

Westside Willamette First Winter Performance

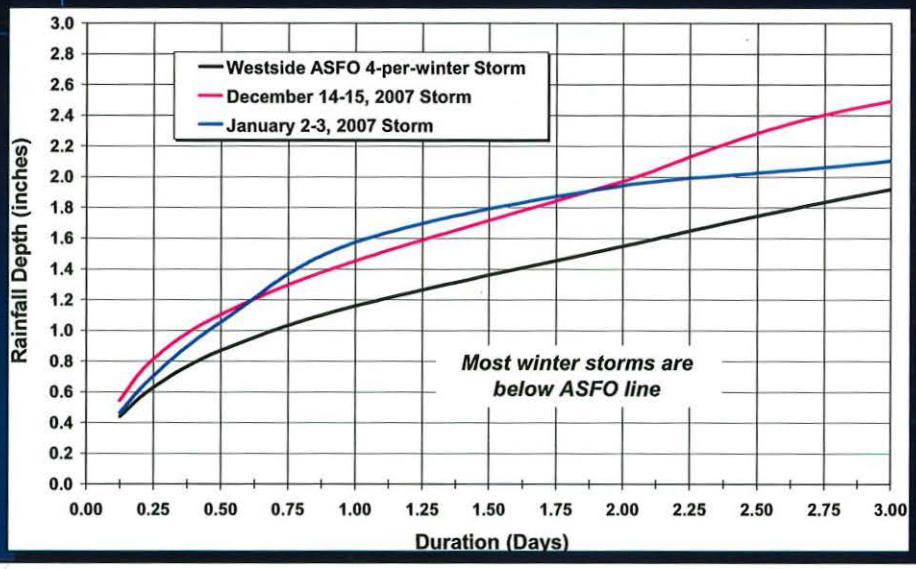


- December 14-15, 2006 Storm
  - 1.45" in 24-hours, >25% above ASFO
  - Valve at Swan Island failed, preventing wet weather pumping from tunnel
  - Tunnel filled and overflowed at 4 shafts / overflow structures
  - Total CSO: 67 MG during 24-hour period

Westside Willamette First Winter Performance

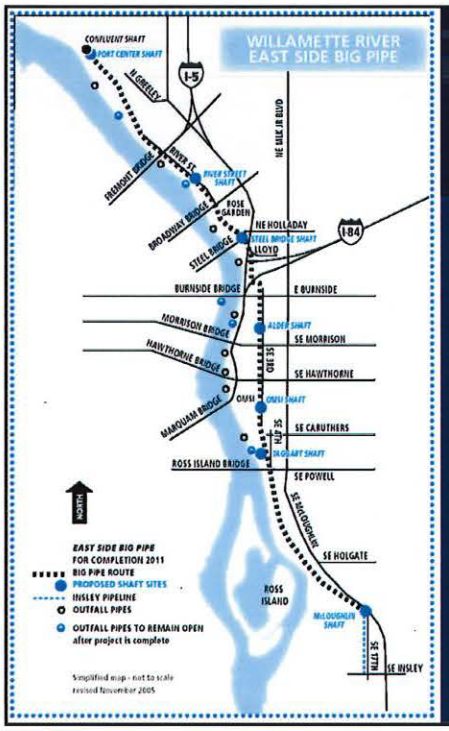
- January 2-3, 2007 Storm
  - 1.57" in 24-hours, >25% above ASFO
  - Perfect system operation & performance
  - Tunnel barely filled
  - Overflowed to Ankeny outfall (Burnside) only
  - Total CSO Discharged: 5 MG during 4 hours

Comparing CSO Storms to ASFO Criteria



Conclusions on 2006-07 Winter Performance

- Columbia Slough & Willamette CSO systems are exceeding ASFO performance criteria
- Columbia Slough system recently improved for integration with Willamette CSO
- Willamette performance is also not a surprise
  - System is designed for the 3-year summer storm, which is a more demanding criteria
  - We expect to remain below 4 overflows per winter on average



East Side CSO Implementation

- 6 mile long tunnel
- 22 foot diameter
- 85 to 165 feet deep
- S.E. McLoughlin Blvd and S.E. 17th Avenue to Swan Island
- Seven large shafts – approx. 50 feet diameter

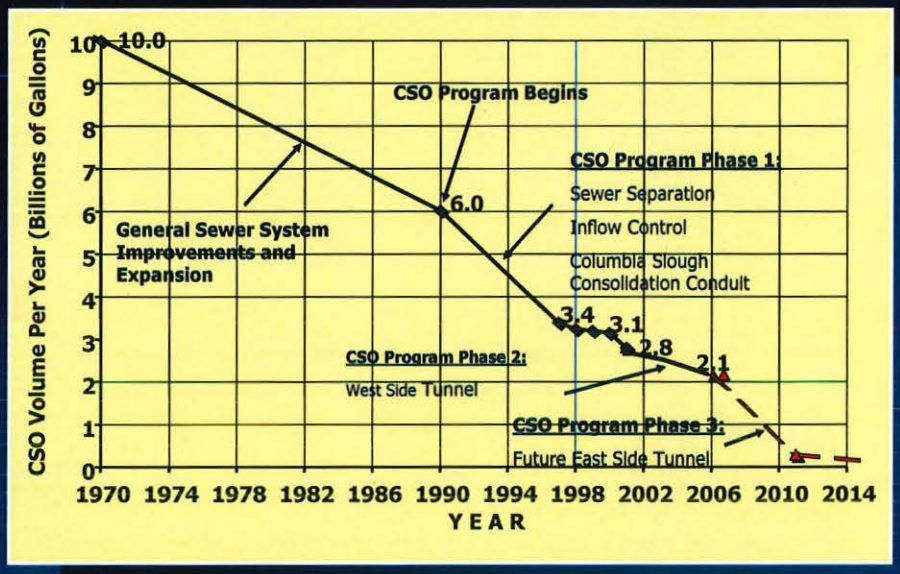
Project Status

- TBM currently in place at base of Opera Shaft
- Initial mining has begun
- Other shaft work underway
- Pipeline/structures work underway
- Work currently on schedule and budget

Upcoming Challenges

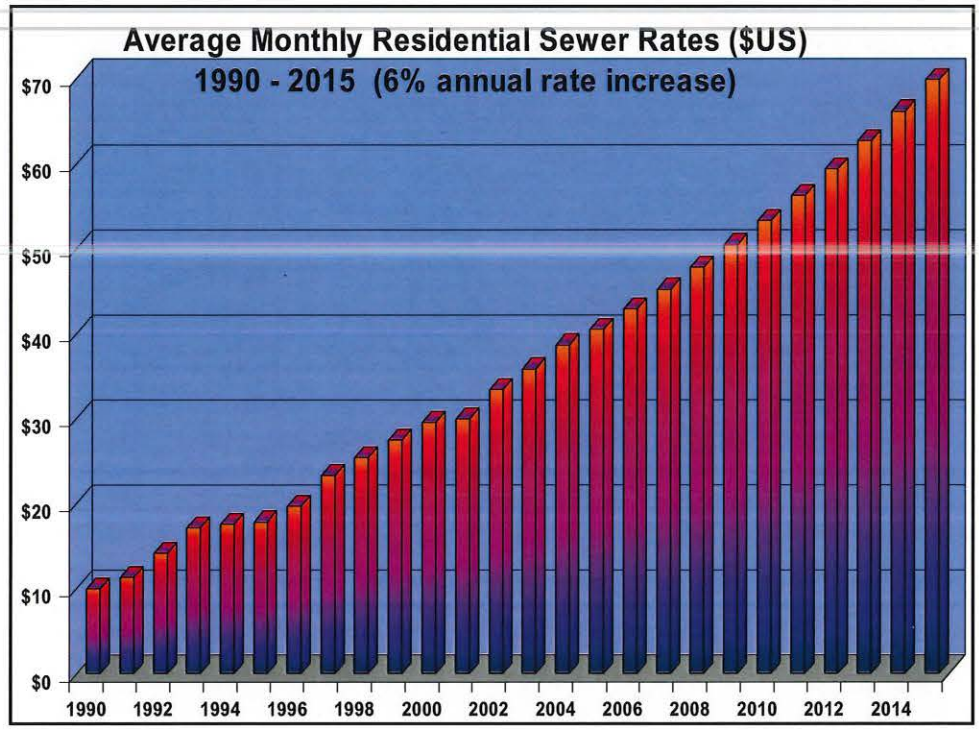
- Initial mining operation at Opera Shaft
- Pipeline work along SE 2nd & 3rd Avenues

CSO Reductions



CSO Estimated Costs Through 2011

Cornerstone Projects	$145M
Columbia Slough	$160M
West Side Big Pipe Project	$380M
East Side Big Pipe Project	$670M
& other remaining projects	
Total	$1.4B



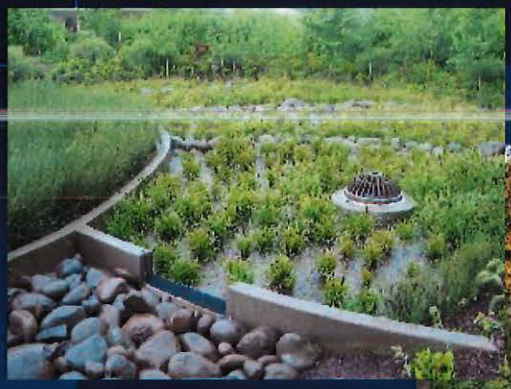
Challenges

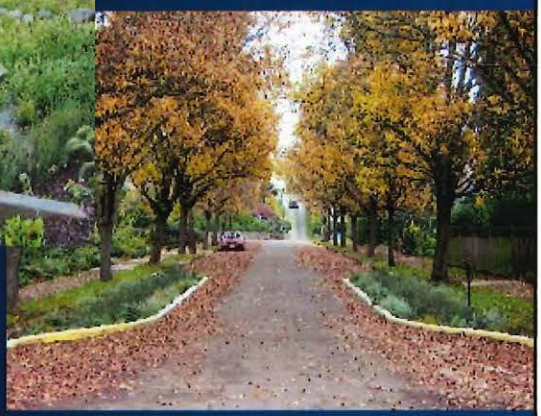
- Rates continue to rise following completion of CSO program
- Green solutions present regulatory challenges
- Protecting our success after 2011 requires innovative thinking and actions

Sustainable Stormwater Management

Innovation

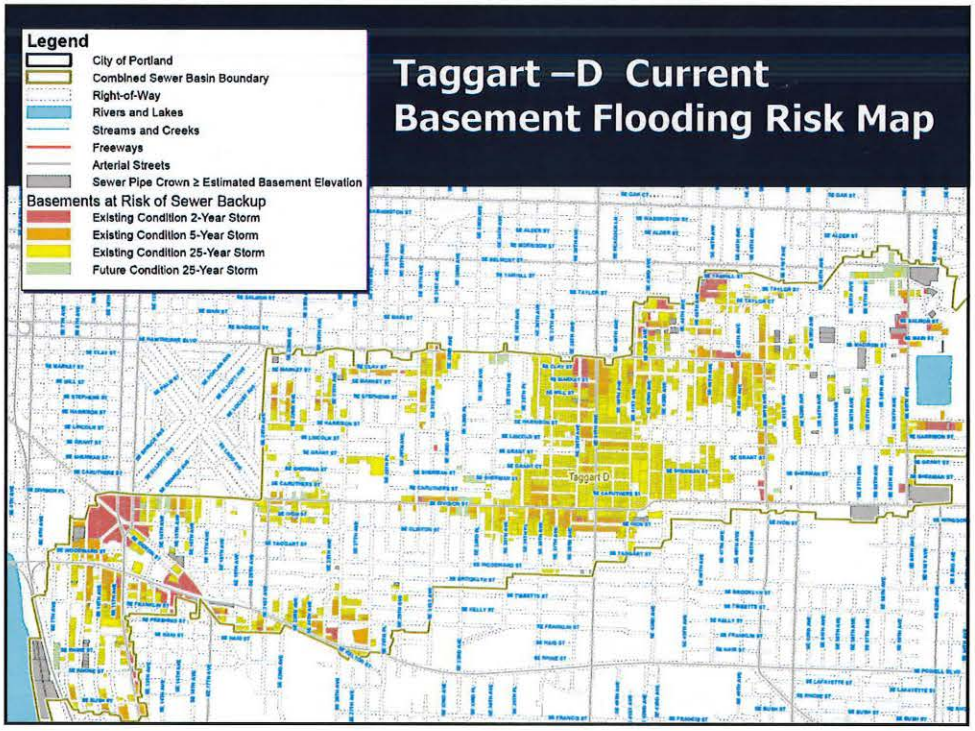
Innovation

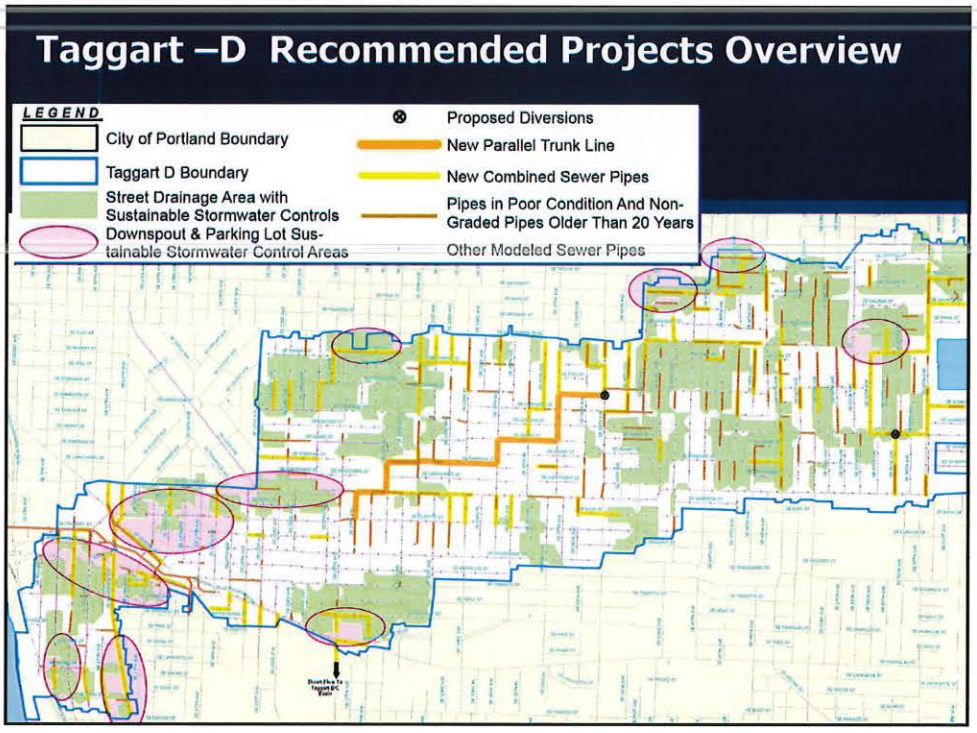





Innovation


Innovation

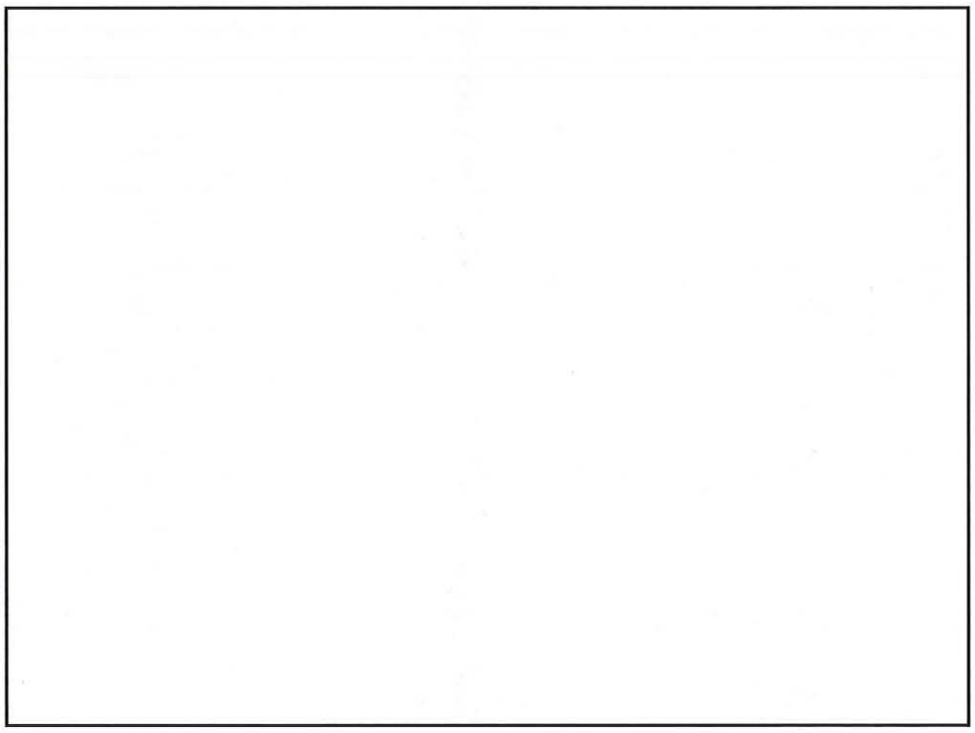

Legend
City of Portland
Combined Sewer Basin Boundary
Right-of-Way
Rivers and Lakes
Streams and Creeks
Freeways
Arterial Streets
Sewer Pipe Crown ≥ Estimated Basement Elevation
Basements at Risk of Sewer Backup
Existing Condition 2-Year Storm
Existing Condition 5-Year Storm
Existing Condition 25-Year Storm
Future Condition 25-Year Storm
Taggart –D Current Basement Flooding Risk Map


Taggart –D Recommended Projects Overview
LEGEND
City of Portland Boundary
Taggart D Boundary
Street Drainage Area with Sustainable Stormwater Controls
Downspout & Parking Lot Sustainable Stormwater Control Areas
Proposed Diversions
New Parallel Trunk Line
New Combined Sewer Pipes
Pipes in Poor Condition And Non-Graded Pipes Older Than 20 Years
Other Modeled Sewer Pipes

CSO Program Conclusions

- CSO Program is on schedule
- Columbia Slough and West Side Willamette CSO System is meeting and exceeding requirements
- East Side Big Pipe under construction
- Expect the same level of performance in meeting and exceeding requirements.
- Green solutions will play a vital role for future infrastructure decisions

Working for Clean Rivers



working for clean rivers

CSO PROGRAM

Willamette River Big Pipe Projects

		PROJECTS	SCHEDULE
WEST SIDE BIG PIPE			
ROUTES		• BIG PIPE TUNNEL (14-ft dia)	Completed
		• PENINSULAR FORCE MAIN	Completed
COMPLETED		• SW PARALLEL INTERCEPTOR	Completed
		• TANNER CREEK PROJECT	Complete 2006
		• BALCH CONDUIT	Complete 2009
SHAFTS		TUNNEL SHAFTS Provides access and connects CSO outfalls to the Big Pipe	Complete 2006
PUMP STATION		SWAN ISLAND CSO PUMP STATION	Complete 2006
EAST SIDE BIG PIPE			
ROUTE		BIG PIPE Tunnel 22-ft diameter Tunneling 100 to 165 feet deep, 6 miles long	Complete 2011
SHAFTS		TUNNEL SHAFTS Provide access and connects CSO outfalls to the Big Pipe	Complete 2011
PROPOSED ROUTE		PORTSMOUTH FORCE MAIN	Complete 2011
ROUTE		EXISTING INTERCEPTORS	
PIPELINES		Convey flow from the outfalls to the Big Pipe	Complete 2011
EXISTING OUTFALLS AND PIPELINES		CSO OUTFALL PIPES	Overflows reduced 94% in 2011
OUTFALLS		REMAINING OPEN	

ENVIRONMENTAL SERVICES
CITY OF PORTLAND

Information
503-823-2827
www.cleanriverworks.com

TANNER CREEK PROJECT

BALCH CONDUIT
Construction
2008 - 2009

SWAN ISLAND PUMP STATION
Construction
2002 - 2006

NICOLAI SHAFT

UPSHUR SHAFT

CONFLUENT SHAFT

EXISTING PORTSMOUTH TUNNEL

COLUMBIA BLVD. WASTEWATER TREATMENT PLANT

PORTSMOUTH FORCE MAIN PROPOSED ROUTE
Construction
2008 - 2011

PENINSULAR FORCE MAIN
Construction
2004 - 2005

WEST SIDE BIG PIPE
Construction
2003 - 2006

PORT CENTER SHAFT
Construction
2006 - 2011

EXISTING PENINSULAR TUNNEL

SW PARALLEL INTERCEPTOR

CLAY ST. SHAFT

ANKENY SHAFT

COLUMBIA SLOUGH BIG PIPE
CONSOLIDATION CONDUIT

Completed 2000
Removed 99% of CSO
Volume to Slough

RIVER STREET SHAFT
Construction
2006 - 2011

EAST SIDE BIG PIPE ROUTE

CSO TUNNEL

Construction
2006 - 2011

McLOUGHLIN SHAFT
Construction
2006 - 2011

TAGGART SHAFT
Construction
2006 - 2011

OPERA SHAFT
Construction
2006 - 2011

ALDER SHAFT
Construction
2006 - 2011

STEEL BRIDGE SHAFT
Construction
2006 - 2011

North

State of Oregon

Department of Environmental Quality Memorandum

Date: June 4, 2007

To: Environmental Quality Commission

From: Stephanie Hallock, Director

Subject: Agenda Item M, Action Item: Pollution Control Tax Credit Considerations
June 22, 2007 EQC Meeting

Why this is Important

The Environmental Quality Commission's certification entitles the Oregon taxpayer (applicant) to subtract up to 35 percent of the facility cost from their Oregon tax liability. The taxpayer may take the tax credit in equal parts over the remaining useful life of the facility but for no more than 10 years.

The Environmental Quality Commission (EQC, Commission) approves or denies the certification of a pollution control facility. The Pollution Control Facilities Tax Credit regulations direct the EQC to "certify a pollution control, solid waste, hazardous waste or used oil facility or portion thereof" if the Commission finds that the facility qualifies as a pollution control facility. ORS 468.170 (4)(a).

Department Recommendation

Attachment A summarizes the Department of Environmental Quality (DEQ, Department) recommendations regarding Pollution Control Facilities Tax Credit applications and certificates. The Department recommends that the EQC consider the following actions.

- Approve final certification of the facilities summarized in Attachment A and detailed in Attachment B.
- Revoke or transfer certificates presented in Attachment C.

Each attachment includes the background and regulatory authority for the recommended action.

EQC Action Alternatives

Action Alternatives for Attachment B

The Commission may postpone any application to a future meeting if the Commission:

- Requires additional information from the Department or applicant; or
- Makes a determination different from the Department recommendation and that determination may have an adverse effect on the applicant.

Attachments

A. Summary of Recommendations
B. Background and References for Final Certification
C. Certificate Administration
D. Tax Expenditure Liability Report
E. Certified Wood Chipper Report

Available Upon Request

ORS 468.150 to 468.190 and OAR 340-016-0005 to 340-016-0080

Approved:

Section: Maggie Vandehey

Division: René-Marc Mongis

Report Prepared By: Maggie Vandehey

Phone: (503) 229-6878

Attachment A

Summary of Recommendations

Attachment B: Recommended for Approval

Tab	App #	Applicant	Claimed	Certified	Difference*	% Allocable	Max Percent	Tax Credit	EQC Action
Air	7328	JELD-WEN, Inc	$ 669,075	$ 629,104	$ (39,971)	100%	35%	$ 220,186	
Mat Rec	7343	Garbarino Disposal & Recycling Service,	3,206	3,206	0	100%	35%	1,122	
Water	7344	Sunstone Circuits, LLC	571,780	198,114	(373,666)	100%	35%	69,340	
NPS	7347	Northwoods Nursery, Inc	2,578	2,578	0	100%	35%	902	
Mat Rec	7348	L & M K Enterprises, LLC	29,190	29,190	0	100%	35%	10,217	
Alt FB	7350	Cersovski Farms	122,900	122,900	0	91%	35%	39,144	
Water	7351	Clough Oil Company	50,638	49,369	(1,269)	100%	35%	17,279	
Water	7362	Oregon Steel Mills, Inc	39,909	33,387	(6,522)	100%	35%	11,685	
Mat Rec	7363	Umpqua Bank Leasing	1,255,215	1,255,215	0	100%	35%	439,325	
Air	7364	Roseburg Forest Products Company	42,572	42,572	0	100%	35%	14,900	
Mat Rec	7365	Global Leasing, Inc	17,761	17,761	0	100%	35%	6,216	
Mat Rec	7367	Deschutes Transfer Company, Inc	134,663	134,663	0	100%	35%	47,132	
Alt FB	7385	T & P Farms, LLC	34,058	34,058	0	100%	35%	11,920	
Alt FB	7386	Scheffel Farms, Inc	63,658	63,658	0	100%	35%	22,280	
Alt FB	7387	Leroy & Lowell Kropf	78,474	78,474	0	100%	35%	27,466	
Air	7388	Collins Products, LLC	1,414,114	1,226,126	(187,988)	100%	35%	429,144	
HW	7390	Tim Dowell	2,439	2,439	0	100%	35%	854	
Mat Rec	7391	Newberg Garbage Service, Inc	125,767	125,767	0	100%	35%	44,018	
Water	7393	JELD-WEN, Inc	1,166,881	1,098,125	(68,756)	100%	35%	384,344	
NPS	7396	Daily Bread Farm, Inc	91,700	91,700	0	71%	35%	22,787	
Water	7397	North Plains Forest Products, Inc	43,100	43,100	0	100%	35%	15,085	
Water	7404	Conrad Wood Preserving Company, Inc	241,355	240,647	(708)	100%	35%	84,226	
Mat Rec	7418	City Sanitary & Recycling	14,820	14,820	0	100%	35%	5,187	
Mat Rec	7435	City Sanitary & Recycling	135,210	135,210	0	100%	35%	47,324	
Mat Rec	7442	Bend Garbage Company, Inc	195,356	195,356	0	100%	35%	68,375	
Mat Rec	7446	Sunset Refuse & Recycling	7,244	7,244	0	100%	35%	2,535	
Mat Rec	7447	Sunset Refuse & Recycling	9,995	9,995	0	100%	35%	3,498	
Mat Rec	7452	Safeway, Inc	24,138	24,138	0	100%	35%	8,448	
Mat Rec	7453	Safeway, Inc	29,330	29,330	0	100%	35%	10,266	
29 Applications		Sum	$ 6,617,126	$ 5,938,246				$ 2,065,207	
		Average	$ 228,177	$ 204,767				$ 71,214	
		Minimum	$ 2,439	$ 2,439				$ 854	
		Maximum	$ 1,414,114	$ 1,255,215				$ 439,325	

* The difference is the facility cost on the application minus the facility cost DEQ recommends for certification. DEQ discussed the differences with the applicant and each applicant indicated agreement with the subtractions. Details are in section 8 of the long review format for each application.

Attachment A
Summary of Recommendations

Attachment C: Recommended Certificate Administration

Action	Cert. #	Change Certificate
Revoke	4239	Converted straw storage building to an ineligible use
	10867	Fire destroyed straw storage building
Transfer	10219	**From** 4-M Ranch, Inc. **to** Time and Shannon Rust

Attachment B
Background and References for Final Certifications

Recommendation

The Department of Environmental Quality (DEQ, Department) recommends the Environmental Quality Commission (EQC, Commission) approve certification of **29** pollution control and material recovery facilities summarized in Attachment A and detailed in this attachment.

To make its recommendation, the Department relied on the application records, the Pollution Control Facilities Tax Credit regulations, pertinent legal advice, and previous EQC decisions and directions.

Organization of Application Reviews

The Department organized the application reviews by ascending application number under the following categories.

Tax Credit Type	Tab
1. Air Pollution Controls	*Air*
2. Alternatives to Open Field Burning	*Alt FB*
3. Hazardous Waste Pollution Controls	*HW*
4. Material Recovery	*Mat Rec*
5. Nonpoint Source Pollution Controls	*NPS*
6. Water Pollution Controls	*Water*

In an attempt to reduce EQC workload, DEQ has divided each category into two review formats. DEQ uses the standard (longer) review format for complex facilities, cost and percentage decreases[1] and to record additional information for the taxing authority[2]. Otherwise, DEQ uses the shorter review format.

[1] Also shown in Attachment A under the Difference column

[2] For example, the State of Oregon issued a Business Energy Tax Credit for the facility presented for PCTC certification on application number 7364, under the *Air* tab.

Each tab includes four sections:

1. Recommendation and Eligibility Criteria
2. Reviews - Short Format
3. Reviews - Long Format
4. References

Each tab includes the eligibility criteria and the decisions required for certifying a pollution control or material recovery facility and for determining the amount of the tax credit. Each review includes the Department's analysis regarding the:

- Facility's qualifications for certification as a pollution control facility,
- Eligible facility cost,
- Percentage of the tax credit attributed to pollution control, and
- Maximum allowable tax credit.

The Department will use the information in this attachment to:

- Notify the applicants of the EQC's certification,
- Develop the Pollution Control Facility Tax Credit Certificate,
- Develop the taxpayer's Department of Revenue form for claiming the credit on the Oregon Tax Return, and
- Develop reports for the Commission, agency management, the Department of Revenue, the Governor's Office, Legislators and other interested parties.

Pollution Control Facility Certification Authority

ORS 468.170(4)(a) provides the Commission its authority to certify pollution control facilities.

Regulation	Department Interpretation
468.170[3] (4)(a) The commission shall certify a pollution control, solid waste, hazardous waste or used oil facility or portion thereof, for which an application has been made under ORS 468.165, if the commission finds that the facility:	The applicant filed a valid application.
(A) Was erected, constructed or installed in accordance with the requirements of ORS 468.165 (1);	The applicant constructed the claimed facility after authorizing legislation.
(B) Is designed for, and is being operated or will operate in accordance with the requirements of ORS 468.155; and	The claimed facility meets the definition of a pollution control facility.
(C) Is necessary to satisfy the intents and purposes of ORS 454.010 to 454.040, 454.205 to 454.255, 454.505 to 454.535, 454.605 to 454.755, ORS chapters 459, 459A, 466 and 467 and ORS chapters 468, 468A and 468B and rules thereunder.	The claimed facility is necessary to satisfy DEQ administered regulations.

[3] ORS 468.170 Action on application; rejection; appeal; issuance of certificate; certification.

ORS 468.170(1) provides the Commission its authority to certify the facility cost and the portion of the cost allocable to pollution control. ORS 468.170(10) provides authority to certify the applicable percentage (Maximum Allowable Percentage) of the certified cost of the facility eligible for tax credit.

Regulation	Department Interpretation
468.170 (1) The Environmental Quality Commission shall act on an application for certification before the 120th day after the filing of the application under ORS 468.165. The action of the commission shall include certification of the actual cost of the facility and the portion of the actual cost properly allocable to the prevention, control or reduction of air, water or noise pollution or solid or hazardous waste or to recycling or appropriately disposing of used oil.	The certified facility cost represents the actual cost. The claimed items control pollution, solid or hazardous waste, or recycle.
The actual cost or portion of the actual cost certified may not exceed the taxpayer's own cash investment in the facility or portion of the facility. Each certificate shall bear a separate serial number for each such facility.	The cost represents the applicant's investment.
468.170 (10) If the construction or installation of a facility is commenced after December 31, 2005, the facility may be certified only if the facility or applicant is described in ORS 468.173 (3). A facility described in ORS 468.173 (2) for which construction or installation is commenced after December 31, 2005, may not be certified under this section.	The applicant, the facility or the location of the facility qualifies for a maximum allowable percentage above zero (0) percent.

Air Pollution Controls

Recommendations and Eligibility Criteria

DEQ recommends the Commission approve **$664,231** in tax credits to **three** applicants that claim air cleaning devices (facilities) that reduce air pollution. Each facility is eligible for a tax credit because it meets the criteria in:

☑ ORS 468.155 (1)(a) and OAR 340-016-0060 (2)(a) - The principal purpose of the facility is to reduce air pollution in response to a DEQ, federal EPA or a regional air pollution authority imposed condition or the sole purpose of the facility is to reduce a substantial quantity of air pollution. (This is item 5 on the longer review format.)

☑ ORS 468.155 (1)(b)(B) – The facility accomplishes the prevention, control or reduction by disposal or elimination of air pollution, air contaminants or air contamination source and the use of an air cleaning device defined in ORS 468A.005. (This is item 6 on the longer review format.)

☑ ORS.468.170 (4)(a) - The facility satisfies the intents and purposes of ORS chapter 468A - Air Pollution. (This is item 7 on the longer review format.)

☑ ORS 468.155(3), ORS 468.170(1) and OAR 340-016-0070 - The facility cost on each application represents the actual cost of the installation and does not exceed the taxpayer's (applicant) own cash investment in the facility. (This is item 8 on the longer review format.)

☑ ORS 468.190 (3) for facilities that cost less than $50,001, ORS 468.170(1) and ORS 468.190(1) for facilities that cost over $50,000 - The applicant accurately determined and DEQ verified the percentage of the facility cost allocable to air pollution control. (This is item 9 on the longer review format.)

☑ ORS 468.173(3)(h) - The maximum tax credit is 35 percent because the applicant submitted their applications between January 1, 2002, and December 31, 2008, inclusively, and the facility is located in an economically distressed area. (This is item 10 on the longer review format.)

Air Pollution Control Reviews – Short Format

There are no air pollution control reviews in the short format.

Air Pollution Control Reviews – Long Format

The following air pollution controls reviews are in the long format organized in application number order after Page 3.

App #	Applicant	Tax Credit
7328	JELD-WEN, Inc	$220,186
7364	Roseburg Forest Products Company	14,900
7388	Collins Products, LLC	429,144

Air Pollution Control References

ORS 468.155[4]

(1)(a) As used in ORS 468.155 to 468.190 and 468.962, unless the context requires otherwise, "pollution control facility" or "facility" means any land, structure, building, installation, excavation, machinery, equipment or device, or any addition to, reconstruction of or improvement of, land or an existing structure, building, installation, excavation, machinery, equipment or device reasonably used, erected, constructed or installed by any person if:

(A) The principal purpose of such use, erection, construction or installation is to comply with a requirement imposed by the Department of Environmental Quality, the federal Environmental Protection Agency or regional air pollution authority to prevent, control or reduce air…pollution…; or

(B) The sole purpose of such use, erection, construction or installation is to prevent, control or reduce a substantial quantity of air…pollution…

[4] Definitions for ORS 468.155 to 468.190 and 468.962

(1)(b) Such prevention, control or reduction required by this subsection shall be accomplished by:...(B) The disposal or elimination of or redesign to eliminate air contaminants or air pollution or air contamination sources and the use of air cleaning devices as defined in ORS 468A.005;...

ORS 468A.005 provides the following definitions.

Air contamination is dust, fume, gas, mist, odor, smoke, vapor, pollen, soot, carbon, acid or particulate matter or any combination thereof.

Air pollution is the presence in the outdoor atmosphere of one or more air contaminants, or any combination thereof, in sufficient quantities and of such characteristics and of a duration as are or are likely to be injurious to public welfare, to the health of human, plant or animal life or to property or to interfere unreasonably with enjoyment of life and property throughout such areas of the state as shall be affected thereby.

Air contamination source is any source at, from, or by reason of which there is emitted into the atmosphere any air contaminant, regardless of who the person may be who owns or operates the building, premises or other property in, at or on which such source is located, or the facility, equipment or other property by which the emission is caused or from which the emission comes.

An air cleaning device is any method, process or equipment that removes, reduces or renders less noxious air contaminants prior to their discharge in the atmosphere.

OAR 340-016-0060[5]

(4) Eligible Activities. The facility shall prevent, reduce, control, or eliminate:...(a) Air contamination by use of air cleaning devices as defined in ORS 468A.005 or through equipment designed to prevent, reduce or eliminate air contaminants prior to discharge to the outdoor atmosphere;...

[5] Eligibility

State of Oregon
Department of
Environmental
Quality

Pollution Control Facility Tax Credit

ORS 468.150 -- 468.190
OAR 340-016-0005 -- 340-016-0080

Application No. 7328
JELD-WEN, Inc

1 DEQ's Recommendation for Certification: Approve Final Certification

JELD-WEN, Inc submitted an application for the certification of an air pollution control facility on October 27, 2006. The applicant filed the application within the required one-year filing period in ORS 468.165(6).

Sections 3 through 7 of this report provide the Department of Environmental Quality (DEQ) analysis of the facility claimed on Application Number 7328. DEQ determined that:

- The facility meets the definition of a pollution control facility;
- The facility is necessary to satisfy the intents and purposes of DEQ regulations; and
- The facility is eligible for the tax credit.

DEQ's analysis of the facility cost, percentage of the facility cost allocable to pollution control and maximum allowable percentage are in sections 8, 9 and 10, respectively. The State of Oregon uses these three components to calculate the tax credit shown below.

Facility Cost		**$629,104**
Percentage Allocable	X	**100 %**
Maximum Allowable Percentage	X	**35 %**
Tax Credit		$220,186

2 Applicant Identification

JELD-WEN Inc
JELD-WEN Engineering
407 Harbor Isles Boulevard
Klamath Falls, OR 97601

Organized as: C Corp
Taxpayer ID: 93-0496342

3 Air Pollution Control Facility Identification

31725 Highway 97 North
Chiloquin, OR 97624

The certificate would describe the facility as:

One - MEGTEC Millennium Regenerative Thermal Oxidizer (RTO), serial numbered ML1012

4 Business and Facility Background

JELD-WEN, Inc skins styrene with wood, metal and fiberglass in the manufacture of interior and exterior doors at the Chiloquin plant. The company produces the styrene from expandable polystyrene (EPS) beads that contain pentane. The applicant claims a propane-fired regenerative thermal oxidizer (RTO) to control emissions from processes that expand the beads and cure it into styrene blocks. The RTO is capable of processing 12,000 scfm (standard cubic feet per minute) at 95 degrees Fahrenheit with a maximum burner rating of 2.7 mmBTU (one million British thermal units.).

The RTO system includes a fan, motor, burner, heat exchange media, flow control valves, system controller, temperature recorder and exhaust stack. The system has a ceramic fiber-lined, steel outer skin and an access platform for servicing burner components.

Prior to installing the RTO, the company routed some waste gases to a boiler oxidation system (BOSS) used to supply steam to the plant and to destroy pentane; the remainder of the pentane is emitted to the atmosphere.

5 ☑ Meets Criteria in ORS 468.155 (1)(a)(A); OAR 340-016-0060 (2)(a)

The primary and most important purpose of the RTO is to meet the applicant's Air Contaminant Discharge Permit number 18-0089 to control volatile organic compounds (principally pentane) from the EPS operation by approximately 61 percent. The RTO's current capture and destruction efficiency is 82 percent. The BOSS previously captured and destroyed about 21 percent (12.79 tons) of the EPS volatile organic compound (VOC) emissions.

Criteria — The principal purpose of the facility is to comply with a DEQ, the federal Environmental Protection Agency (EPA) or a regional requirement to prevent, reduce or control air pollution. The principal purpose is the most important or primary purpose of the facility. The facility has only one primary purpose.

> Air pollution is the presence in the outdoor atmosphere of one or more air contaminants, or any combination thereof, in sufficient quantities and of such characteristics and of a duration as are or are likely to be injurious to public welfare, to the health of human, plant or animal life or to property or to interfere unreasonably with enjoyment of life and property throughout such area of the state as shall be affected thereby. ORS 468A.005.

6 ☑ Meets Criteria in ORS 468.155 (1)(b)(B)

The RTO is an air cleaning device that controls VOCs.

Criteria — The facility accomplishes the prevention, control or reduction by disposal or elimination of air contaminants, air pollution or air contamination sources; and the use of an air cleaning device as defined in ORS 468A.005.

Air contaminant - dust, fume, gas, mist, odor, smoke, vapor, pollen, soot, carbon, acid or particulate matter or any combination thereof. ORS 468A.005.

Air pollution - see section 5 for definition.

Air contamination source - any source at, from, or by reason of which there is emitted into the atmosphere any air contaminant, regardless of who the person may be who owns or operates the building, premises or other property in, at or on which such source is located, or the facility, equipment or other property by which the emission is caused or from which the emission comes. ORS 468A.005.

Air cleaning device - any method, process or equipment that removes, reduces or renders less noxious air contaminants prior to their discharge in the atmosphere. ORS 468A.005.

7 ☑ Meets Criteria in ORS.468.170 (4)(a)

The facility satisfies the intents and purposes of ORS chapter 468A (Air Pollution.)

Criteria — The facility is necessary to satisfy the intents and purposes of ORS 454.010 to 454.040, 454.205 to 454.255, 454.505 to 454.535, 454.605 to 454.755, ORS chapters 459, 459A, 466 and 467 and ORS chapters 468, 468A and 468B and rules thereunder.

8 ☑ Meets Criteria in ORS 468.155(3), ORS 468.170(1), OAR 340-016-0070

The eligible facility cost represents the applicant's own cash investment.

Paid invoices document the eligible facility cost of $669,075. The company obtained a Business Energy Tax Credit and subtracted an incorrect net present value of that credit. The State of Oregon has issued 11 Pollution Control Facilities Tax Credit Certificates to the applicant but none to the applicant at the Chiloquin location. The claimed facility is not a replacement of any previously certified facility.

Section	Description	Facility Cost
	Claimed	$669,075.00
	Calculation Error (BETC)	- 39,971.25
	Recommended	$629,103.75

Criteria — The certified cost is limited to the actual cost of the claimed facility and excludes any ineligible costs in ORS 468.155(3), OAR 340-016-0070(1) and -0070(3). The certified cost does not exceed the applicant's own cash investment in the

facility or portion of the facility.

The percentage of the facility cost allocable to pollution control is 100 percent. The certified facility cost exceeds $50,000; therefore, the applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3) considering the five factors under Criteria below and a 15-year useful life. The claimed facility does not produce a salable or usable commodity, a revenue stream or cost savings. Expenditures exceed revenue; therefore, the resulting Facility ROI is less than the National ROI for 2006, the facility's construction completion year. The applicant did not investigate an alternative technology.

Criteria — The certified facility cost exceeds $50,000; therefore, the following factors help determine the percentage of the cost allocable to reducing solid waste.

a. The extent to which the applicant uses the facility to recover and convert waste products into a salable or usable commodity;
b. The estimated annual percent return on the investment in the facility;
c. Any alternative methods, equipment and costs for achieving the same pollution control objective;
d. Any related savings or increase in costs that occur or may occur as a result of the installation of the facility; and
e. Any other relevant factors.

9 ☑ Meets Criteria in ORS 468.173(3)(h)

The maximum tax credit is 35 percent because the applicant submitted the application on October 27, 2006, and the facility is located in Klamath County, which is a severely distressed county.

Criteria — The maximum tax credit is 35 percent if the applicant submitted the application between January 1, 2002, and December 31, 2008, inclusively; and the facility is located within a distressed area as designated by the Economic and Community Development Department.

Reviewer: Maggie Vandehey, DEQ Tax Credit Program Manager
Mark Baily, Source Test Coordinator

State of Oregon
Department of
Environmental
Quality

Pollution Control Facility Tax Credit

ORS 468.150 -- 468.190
OAR 340-016-0005 -- 340-016-0080

Application No. 7364
Roseburg Forest Products

1 DEQ's Recommendation for Certification: Approve Final Certification

Roseburg Forest Products submitted an application for the certification of an air pollution control facility on December 1, 2006. The applicant filed the application within the required one-year filing period in ORS 468.165(6).

Sections 3 through 7 of this report provide the Department of Environmental Quality (DEQ) analysis of the facility claimed on application number 7364. DEQ determined that:

- The facility meets the definition of a pollution control facility;
- The facility is necessary to satisfy the intents and purposes of DEQ regulations; and
- The facility is eligible for the tax credit.

DEQ's analysis of the facility cost, percentage of the facility cost allocable to pollution control and maximum allowable percentage are in sections 8, 9 and 10, respectively. The State of Oregon uses these three components to calculate the tax credit shown below.

Facility Cost		**$42,572**
Percentage Allocable	X	**100 %**
Maximum Allowable Percentage	X	**35 %**
Tax Credit		$14,900

2 Applicant Identification

Roseburg Forest Products
PO Box 1088
Roseburg, OR 97470

Organized as: C Corp
Taxpayer ID: 93-1240670

3 Air Pollution Control Facility Identification

Roseburg Forest Products
10700 Old Hwy 99 S
Dillard, OR 97432

The certificate would describe the facility as:

A Western Pneumatics 542 Primary baghouse Twin City Fan and Blower:

- **One model TBAESW 40206 R22A negative air fan, serial number 494 0091850**
- **One model 33606 R16A rotator or sweep arm fan, serial number 495 0091850**

4 Business and Facility Background

Roseburg Forest Products Company manufactures lumber, plywood and particleboard at its Dillard mill. In the first step of manufacturing particleboard, the process sizes furnish (for example, green and dry wood shavings, sawdust, plytrim, chips, etc.). The attrition mill further reduces the size of dry furnish then separates it into core and face-grade material. The process blends resin and wax with the furnish prior to pressing it into boards. After drying, cutters dimension the boards and sanders smooth the surface. The company may coat the particleboard with UV (ultraviolet) fillers, vinyl finishes or melamine paper overlay according to customer specifications.

The applicant claims a Western Pneumatics 542 Primary baghouse to control particulate matter from the board dimensioning process on particleboard sawline number 2. The design inlet gas flow rate of the system is 40,000 acfm (actual cubic feet per minute). The sweep arm/negative air fan continuously cleans the 542 12-ounce polypropylene bags that measure 120 inches long by 4.75 inches in diameter. The company identifies the baghouse as M-17 PBC/BH59.

5 ☑ Meets Criteria in ORS 468.155 (1)(a)(A); OAR 340-016-0060 (2)(a)

The primary and most important purpose of the baghouse is to remove approximately 6.71 tons of particulate matter (PM) each year. The claimed facility has a rated control efficiency of 99.997 percent for capture of PM with a particle size 0.5 microns and larger. The baghouse emits an approximate .01 tons of PM each year based on throughput of 26,952 BDT (Bone Dry Tons) per year. The claimed facility replaces a 30-year old baghouse.

Criteria — The principal purpose of the facility is to comply with a DEQ, the federal Environmental Protection Agency (EPA) or a regional requirement to prevent, reduce or control air pollution. The principal purpose is the most important or primary purpose of the facility. The facility has only one primary purpose.

> Air pollution is the presence in the outdoor atmosphere of one or more air contaminants, or any combination thereof, in sufficient quantities and of such characteristics and of a duration as are or are likely to be injurious to public welfare, to the health of human, plant or animal life or to property or to interfere unreasonably with enjoyment of life and property throughout such area of the state as shall be affected thereby. ORS 468A.005.

6 ☑ Meets Criteria in ORS 468.155 (1)(b)(B)

The Western Pneumatic baghouse is an air cleaning device that reduces PM.

Criteria — The facility accomplishes the prevention, control or reduction by disposal or elimination of air contaminants, air pollution, or air contamination sources; and the use of an air cleaning device as defined in ORS 468A.005.

Air contaminant - dust, fume, gas, mist, odor, smoke, vapor, pollen, soot, carbon, acid or particulate matter or any combination thereof. ORS 468A.005.

Air pollution - see section 5 for definition.

Air contamination source - any source at, from, or by reason of which there is emitted into the atmosphere any air contaminant, regardless of who the person may be who owns or operates the building, premises or other property in, at or on which such source is located, or the facility, equipment or other property by which the emission is caused or from which the emission comes. ORS 468A.005.

Air cleaning device - any method, process or equipment that removes, reduces or renders less noxious air contaminants prior to their discharge in the atmosphere. ORS 468A.005.

7 ☑ Meets Criteria in ORS.468.170 (4)(a)

The facility satisfies the intents and purposes of ORS chapter 468A (Air Pollution.)

Criteria — The facility is necessary to satisfy the intents and purposes of ORS 454.010 to 454.040, 454.205 to 454.255, 454.505 to 454.535, 454.605 to 454.755, ORS chapters 459, 459A, 466 and 467 and ORS chapters 468, 468A and 468B and rules thereunder.

8 ☑ Meets Criteria in ORS 468.155(3), ORS 468.170(1), OAR 340-016-0070

The eligible facility cost represents the applicant's own cash investment.

Paid invoices document the eligible facility cost. The applicant accurately subtracted inelgible cost for interior ductwork, the Energy Trust reimbursement ($87,841) and the net present value of the Business Energy Tax Credit ($44,638.) The State of Oregon has issued 20 Pollution Control Facilities Tax Credit Certificates to the applicant at this location. The claimed facility is not a replacement of these previously certified facilities.

Criteria — The certified cost is limited to the actual cost of the claimed facility and it excludes any ineligible costs in ORS 468.155(3), OAR 340-016-0070(1) and -0070(3). The certified cost does not exceed the taxpayer's own cash investment in the facility or portion of the facility.

☑ Meets Criteria in ORS 468.190 (3)

The percentage of the facility cost allocable to pollution control is 100 percent.
The certified facility cost does not exceed $50,000 and the applicant uses the baghouse 100 percent of the time to recover PM.

Criteria — If the cost of the facility (or facilities certified under one certificate) does not exceed $50,000, the portion of the actual costs properly allocable is the ratio of the time the applicant uses the facility to prevent, control or reduce solid waste pollution to the entire time the facility is used for any purpose.

10 ☑ Meets Criteria in ORS 468.173(3)(h)

The maximum tax credit is 35 percent because the applicant submitted the application on December 1, 2006, and the facility is located in Douglas County, which is a severely distressed county.

Criteria — The maximum tax credit is 35 percent if the applicant submitted the application between January 1, 2002, and December 31, 2008, inclusively; and the facility is located within a distressed area as designated by the Economic and Community Development Department.

Reviewer: Maggie Vandehey, DEQ, Tax Credit Program Manager
Gary Andes, Natural Resource Specialist 4

State of Oregon
Department of
Environmental
Quality

Pollution Control Facility Tax Credit

ORS 468.150 -- 468.190
OAR 340-016-0005 -- 340-016-0080

Application No. 7388
Collins Products LLC

1 DEQ's Recommendation for Certification: Approve Final Certification

Collins Products, LLC submitted an application for the certification of an air pollution control facility on January 8, 2007. The applicant filed the application within the one-year filing period required in ORS 468.165(6).

Sections 3 through 7 of this report provide the Department of Environmental Quality (DEQ) analysis of the facility claimed on application number 7388. DEQ determined that the facility:

- Meets the definition of a pollution control facility;
- Is necessary to satisfy the intents and purposes of DEQ regulations; and
- Is eligible for the tax credit.

DEQ's analysis of the facility cost, percentage of the facility cost allocable to pollution control and maximum allowable percentage are in sections 8, 9 and 10, respectively. The State of Oregon uses these three components to calculate the tax credit shown below.

Facility Cost		**$1,226,126**
Percentage Allocable	X	**100 %**
Maximum Allowable Percentage	X	**35 %**
Tax Credit		$429,144

2 Applicant Identification

Collins Products LLC
6410 Highway 66
Klamath Falls, OR 97601

Organized as: LLC
Taxpayer ID: 93-1271850

3 Air Pollution Control Facility Identification

Same as the applicant's address.

The certificate would describe the facility as:

One - Regenerative Catalytic Oxidizer
One – Induced Draft Fan, serial number 05-208078-1-1

4 Business and Facility Background

Collins Products, LLC manufactures hardboard siding; brand named Truwood. Over a four-hour period, the manufacturing process cures raw hardboard panels in bake ovens at 2,908 degrees Fahrenheit then the panels move to the cooling zone. Both the bake ovens and cooling zones emit volitile organic compounds (VOCs.) The applicant installed a Geoenergy Division/A.H. Lundberg Associates, Inc. Regenerative Catalytic Oxidizer (RCO) to capture and destroy VOCs from these two sources.

The RCO uses twin heat-recovery chambers and quick-action poppet valves to switch the direction of the gas stream in the heat recovery chambers. The RCO catalytic media is a 75 percent mix of precious metals (platinum and palladium) and 25 percent base metal (magnesium dioxide) that removes small, oxygenated VOC compounds such as methanol and formaldehyde from the gas stream. The claimed facility includes exterior ductwork and an induced draft fan that moves the emission stream to the exhaust stack or to the dryer.

The company installed ductwork to redirect approximately 30,000 cubic feet per minute of scrubbed hot air from the RCO stack to the fiber dryer inlets in lieu of using 100 percent ambient air. This improves dryer efficiency and reduces steam required to dry the fiber.

5 ☑ Meets Criteria in ORS 468.155 (1)(a); OAR 340-016-0060 (2)

The primary and most important purpose of the RCO is to destroy an average of 98.6 percent (59.8 tons per year) VOCs in compliance with their Title V permit number 18-0013. Nitrogen Oxides (NO_x) emissions increased but are still within permit limits. Prior to installing the RCO, the process exhausted VOC from the heat ovens and cooling zones to the atmosphere.

The applicant claimed costs for exterior ductwork from the RCO stack to the new dryer, which are not associated with reducing air pollution. The Department subtracted the related costs under section 8 below as making a significant contribution to meeting the new emission standards.

Criteria

The principal purpose of the facility is to comply with a DEQ, the federal Environmental Protection Agency (EPA) or a regional requirement to prevent, reduce or control air pollution. The principal purpose is the most important or primary purpose of the facility. The facility has only one primary purpose.

> Air pollution is the presence in the outdoor atmosphere of one or more air contaminants, or any combination thereof, in sufficient quantities and of such characteristics and of a duration as are or are likely to be injurious to public welfare, to the health of human, plant or animal life or to property or to interfere unreasonably with enjoyment of life and property throughout such area of the state as shall be affected thereby. ORS 468A.005.

6 ☑ Meets Criteria in ORS 468.155 (1)(b)(B)

The RCO is an air-cleaning device that reduces VOC emissions.

Criteria — The facility accomplishes the prevention, control or reduction by disposal or elimination of air contaminants, air pollution or air contamination sources; and the use of an air cleaning device as defined in ORS 468A.005.

Air contaminant - dust, fume, gas, mist, odor, smoke, vapor, pollen, soot, carbon, acid or particulate matter or any combination thereof. ORS 468A.005.

Air pollution - see section 5 for definition.

Air contamination source - any source at, from, or by reason of which there is emitted into the atmosphere any air contaminant, regardless of who the person may be who owns or operates the building, premises or other property in, at or on which such source is located, or the facility, equipment or other property by which the emission is caused or from which the emission comes. ORS 468A.005.

Air cleaning device - any method, process or equipment that removes, reduces or renders less noxious air-contaminants prior to their discharge in the atmosphere. ORS 468A.005.

7 ☑ Meets Criteria in ORS.468.170 (4)(a)

The facility satisfies the intents and purposes of ORS chapter 468A (Air Pollution)

Criteria — The facility is necessary to satisfy the intents and purposes of ORS 454.010 to 454.040, 454.205 to 454.255, 454.505 to 454.535, 454.605 to 454.755, ORS chapters 459, 459A, 466 and 467 and ORS chapters 468, 468A and 468B and rules thereunder.

8 ☑ Meets Criteria in ORS 468.155(3), ORS 468.170(1), OAR 340-016-0070

The eligible facility cost represents the applicant's own cash investment.

Paid invoices document the recommended facility cost in the table below. The State of Oregon has issued 18 Pollution Control Facilities Tax Credit Certificates to Weyerhaeuser Company, the previous owner of the mill, and zero certificates to Collins Products, LLC, the new owner at this location. The claimed facility is not a replacement of any previously certified facility. The applicant accurately subtracted the Energy Trust grant of $41,375 prior to claiming $1,414,114 as the facility cost. The applicant included the cost to duct scrubbed exhaust to the fiber dryer inlets. The Department subtracted the cost not related to pollution control from the claimed facility cost.

Section	Description	Facility Cost
	Claimed	$1,414,114
5	Ductwork to recycle hot exhaust	-187,988
	Recommended	$1,226,126

Criteria

The certified cost is limited to the actual cost of the claimed facility and it excludes any ineligible costs in ORS 468.155(3), OAR 340-016-0070(1) and -0070(3). The certified cost does not exceed the taxpayer's own cash investment in the facility or portion of the facility.

The regulations exclude over 40 items from the definition of a Pollution Control Facility, including any distinct portion of a pollution control facility that makes an insignificant contribution to the principal or sole purpose of the facility.

9 ☑ Meets Criteria in ORS 468.170(1), ORS 468.190(1)

The percentage of the facility cost allocable to pollution control is 100 percent. The certified facility cost exceeds $50,000.

The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3) considering the five factors listed under the Criteria below and the facility's ten-year useful life. The claimed facility does not produce a salable or usable commodity, a revenue stream, or cost savings. Expenditures exceed revenue; therefore, the resulting Facility Return on Investment (ROI) is less than the National ROI for 2006, the facility's construction completion year. The applicant did not investigate an alternative technology.

Criteria

The certified facility cost exceeds $50,000; therefore, the following factors help determine the percentage of the cost allocable to reducing solid waste.

a. The extent to which the applicant uses the facility to recover and convert waste products into a salable or usable commodity;

b. The estimated annual percent return on the investment in the facility;

c. Any alternative methods, equipment and costs for achieving the same pollution control objective;

d. Any related savings or increase in costs that occur or may occur as a result of the installation of the facility; and

e. Any other relevant factors.

0 ☑ Meets Criteria in ORS 468.173(3)(h)

The maximum tax credit is 35 percent because the applicant submitted the application on January 8, 2007, and the facility is located in Klamath County, which is a severely distressed area.

Criteria

The maximum tax credit is 35 percent if the applicant submitted the application between January 1, 2002, and December 31, 2008, inclusively, and the facility is located within an area that has been designated a distressed area, as defined in ORS 285A.010, by the Economic and Community Development Department.

Reviewer: Maggie Vandehey, DEQ, Tax Credit Program, Manager
George Holroyd, DEQ ER, Title V Permit Writer

Alternatives to Open Field Burning

Recommendations and Eligibility Criteria

DEQ recommends the Commission approve **$100,810** in tax credits to **four** grass-seed growers who invested in equipment and drainage tile (facility) as an alternative to burning their grass seed acreage. Each facility is eligible for a tax credit because it meets the criteria in:

☑ ORS 468.155 (1)(a)(A) and OAR 340-016-0060 (2)(a) - The principal purpose of each facility is to reduce the maximum acreage to be open burned in compliance with OAR 340-266-0060 - Acreage Limitations, Allocations.

☑ ORS 468.150 and OAR 340-016-0060 (4)(b) – Each grower invested in an eligible method for reducing the number of grass seed acres requiring open field burning. One grower purchased equipment and three growers installed drainage tile.

☑ ORS.468.170 (4)(a) - Each facility satisfies the intents and purposes of ORS chapter 468A - Air Pollution.

☑ ORS 468.155(3), ORS 468.170(1) and OAR 340-016-0070 - The facility cost on each application represents the actual cost of the installation and does not exceed the taxpayer's (applicant) own cash investment in the facility.

☑ ORS 468.190 (3) for facilities that cost less than $50,001, ORS 468.170(1) and ORS 468.190(1) for facilities that cost over $50,000 - Each applicant accurately determined and DEQ verified the percentage of the facility cost allocable to air pollution control.

☑ ORS 468.173(3)(f) - The maximum tax credit is 35 percent because the applicants submitted their applications between January 1, 2002, and December 31, 2008, inclusively, and the certified facility cost does not exceed $200,000.

Alternatives to Open Field Burning – Short Format

No.	Applicant			Facility
7350	**Cersovski Farms** Partnership: 93-6101455			One Case-IH Mx240 Tractor, serial number JJA) 112691 One Kello 21' model 225TSW disc, ID number F1071149
	Facility Cost		**$122,900**	Cersovski Farms leases 1,550 acres used to grow grass seed. Two hundred and thirty (230) acres are in perennial grass seed, 1,275 acres are in annual grass seed and 45 acres are in meadow foam cultivation. The acreage is located between Diamond Hill Drive and Bowers Road in Linn County. The farm burned an average of 125 acres over the last three years. The applicant claims a tractor and disc as an alternative to open burning. The application accurately reduced the percentage of the cost allocable to pollution control to 88 percent based on the University of Oregon table for tractor/implement hours. The EQC has issued three certificates to the farm, two for tractors and one for a building. The claimed tractor and disc is not a replacement of a previously certified facility. With the certification of the claimed tractor and disc, the farm has sufficient tractor power and implements to sanitize 1,550 acres for growing grass seed.
	% Allocable	X	**91%**	
	Applicable %	X	**35%**	
	Tax Credit		$39,144	
	31277 Diamond Hill Drive Harrisburg, OR 97446			Same as the applicant's address.
7385	**T & P Farms, LLC** LLC: 93-6084519			T & P Farms, LLC is a grass seed grower that owns 286 acres, cultivating 250 acres in perennial grass seed. The farm last burned grass seed acreage six years ago to sanitize its fields.
	Facility Cost		**$34,058**	
	% Allocable	X	**100 %**	The farm installed 32,750 feet of four-inch, 1,130 feet of six-inch and 200-feet of eight-inch perforated pipe tile on the east 19 acres of Tax Lot number R18588. The tile prevents the grass straw from degrading, thereby maintaining its marketability. The applicant also plans to plant rotational crops on the acreage. The EQC issued two certificates to the farm, one for a straw storage building and one for a flail. The claimed facility is not a replacement facility.
	Applicable %	X	**35%**	
	Tax Credit		$11,920	
	PO Box 9068 Brooks, OR 97305			5371 Brooklake Road NE Brooks, OR 97305

7386 Scheffel Farms, Inc
C Corp: 91-1792279

Facility Cost		**$63,658**
% Allocable	X	**100 %**
Applicable %	X	**35%**
Tax Credit		$22,280

Scheffel Farms, Inc grows grass seed on 595 that the farm owns and on 555 leased acres. Eight hundred and ten (810) acres are in perennial grass seed cultivation, and 350 acres are in annual grass seed cultivation. The farm burned an average of 333 acres in the last three years.

The claimed field tile installed on 75 farm-owned acres allows planting of an alternative rotational crop. The installation includes 65,636 feet of four-inch, 3,726 feet of six-inch, 1,820 feet of eight-inch and 880 feet of ten-inch perforated pipe, connections and two outlet culverts with guards. The location of the tile is account number R316584 (145S-4W-21, Lot 400) and number R317103 (145S-4W-21, lot 500.)

The EQC issued four alternatives to field burning certificates to the farm, one for tile installed on 325 acres. This installation is not a replacement to any of these facilities.

30060 Nixon Drive
Halsey, OR 97348

Nicholson Place - Peoria Road
Halsey, OR 97348

7387 Leroy & Lowell Kropf
Partnership: 93-0812235

Facility Cost		**$78,474**
% Allocable	X	**100 %**
Applicable %	X	**35%**
Tax Credit		$27,466

Leroy and Lowell Kropf are grass seed growers that own 60 acres and lease an additional 940 acres. Eight hundred and thirty five (835) acres are in perennial grass-seed cultivation and 165 acres are in annual grass seed cultivation. The farm burned an average of 84 acres over the last three years.

The applicants claim field tile installed on 104 acres allowing them to plant an alternative rotational crop. The installation includes 85,740 feet of four-inch, 800 feet of six-inch, 800 feet of eight-inch, 500 feet of ten-inch and 1,700 feet of twelve-inch perforated pipe, connections and one outlet culvert with guards.

The installation is on leased acreage, which is a half mile north of intersection of Cartney Drive and Jensen Road. The location is also identified as account number 0316865, which is Tax Lot 500 (S26 T14S R04W) located in Linn County. The landowner did not and will not reimburse the applicant or reduce the lease to offset the installation costs.

The EQC issued eight certificates to the applicants. One certificate approved drainage tile installed on the applicant's 60 acres. This installation is not a replacement to any of these facilities.

24305 Powerline Road
Harrisburg, OR 97446

1/2 mile north of Cartney Drive and Jensen Road
Harrisburg, OR 97446

Alternatives to Open Field Burning – Long Format

There are no long format reviews for Alternatives to Field Burning.

Alternatives to Field Burning References

ORS 468.150[6]

After alternative methods for field sanitation and straw utilization and disposal are approved by the Department of Environmental Quality, "pollution control facility," as defined in ORS 468.155, shall include such approved alternative methods and persons purchasing and utilizing such methods shall be eligible for the benefits allowed by ORS 468.155 to 468.190 and 468.962. [1975 c.559 §15; 1999 c.59 §136]

Note: 468.150 was enacted into law by the Legislative Assembly but was not added to or made a part of ORS chapter 468 or any series therein by legislative action. See Preface to Oregon Revised Statutes for further explanation.

OAR 340-016-0060[7]

(4) Eligible Activities… (b) Alternatives to Open Field Burning. The facility shall reduce or eliminate:

(A) Open field burning and may include equipment, facilities, and land for gathering, densifying, handling, storing, transporting and incorporating grass straw or straw based products;

(B) Air quality impacts from open field burning and may include propane burners or mobile field sanitizers; or

(C) Grass seed acreage that requires open field burning. The facility may include:
(i) Production of alternative crops that do not require open field burning;

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[6] Field sanitation, and straw utilization and disposal methods as "pollution control facilities"

[7] Eligibility

(ii) Production of rotation crops that support grass seed production without open field burning; or
(iii) Drainage tile installations and new crop processing facilities.

Hazardous Waste Control

Recommendations and Eligibility Criteria

DEQ recommends the Commission approve an **$854** tax credit to **one** auto repair shop that changed from a solvent– to water–based parts washer (facility). Each facility is eligible for a tax credit because it meets the criteria in:

☑ ORS 468.155 (1)(a)(B) and OAR 340-016-0060 (2)(a) – The sole purpose of changing from a solvent– to water–based parts washer is to reduce a substantial quantity of hazardous waste.

☑ ORS 468.155 (1)(b)(E) – The aqueous parts washer eliminates the use of hazardous waste and its hazardous waste stream.

☑ ORS.468.170 (4)(a) - The facility satisfies the intents and purposes of ORS chapter 466 - Hazardous Waste and Hazardous Materials.

☑ ORS 468.155(3), ORS 468.170(1) and OAR 340-016-0070 - The facility cost represents the actual cost of the installation and does not exceed the taxpayer's (applicant) own cash investment in the facility.

☑ ORS 468.190 (3) for facilities that cost less than $50,001 – The applicant accurately determined and DEQ verified the percentage of the facility cost allocable to hazardous waste pollution control.

☑ ORS 468.173(3)(f) - The maximum tax credit is 35 percent because the applicant submitted the application between January 1, 2002, and December 31, 2008, inclusively, and the certified facility cost does not exceed $200,000.

Hazardous Waste Pollution Controls – Short Form

No.	Applicant			Facility
7390	**Tim Dowell** S Corp: 93-1088919			One – Ranger Parts Washer, serial number 129406 Tim Dowel, DBA T.J. Auto Repair, claims an aqueous washer to clean auto parts during the repair process. Prior to purchasing the aqueous parts washer, the applicant used a system that cleaned parts with solvents containing Toluene and Benzene. The sole purpose of the new parts washer is to reduce the company's hazardous waste stream by 50 to 80 percent; thereby, reducing chemicals known to cause birth defects, other reproductive harm or cancer. Spencer Environmental, Inc collects the skimmed oil and grease from the new parts washer and sells it as hog fuel. The EQC has not previously issued a certificate to the applicant or to the location.
	Facility Cost		**$2,439**	
	% Allocable	X	**100 %**	
	Applicable %	X	**35 %**	
	Tax Credit		$854	
	1085 Alternate Highway 101 Warrenton, OR 97146			Same as the applicant's address.

Hazardous Waste – Long Format

There are no long format reviews for Hazardous Waste.

Hazardous Waste References

ORS 468.155[8]

(1)(a) As used in ORS 468.155 to 468.190 and 468.962, unless the context requires otherwise, "pollution control facility" or "facility" means any land, structure, building, installation, excavation, machinery, equipment or device, or any addition to, reconstruction of or improvement of, land or an existing structure, building, installation, excavation, machinery, equipment or device reasonably used, erected, constructed or installed by any person if:

(A) The principal purpose of such use, erection, construction or installation is to comply with a requirement imposed by the Department of Environmental Quality, the federal Environmental Protection Agency … to prevent, control or reduce … hazardous waste …; or

(B) The sole purpose of such use, erection, construction or installation is to prevent, control or reduce a substantial quantity of … hazardous waste….

(b) Such prevention, control or reduction required by this subsection shall be accomplished by:

(E) The treatment, substantial reduction or elimination of or redesign to treat, substantially reduce or eliminate hazardous waste as defined in ORS 466.005.

ORS 466.005 provides or references the following definition

Hazardous Waste Pollution is the presence of residues resulting from any process of industry, manufacturing, trade or business or government or from the development or recovery of any natural resources, if such residues cause or contribute to an increase in mortality or an increase in serious irreversible illness; or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported or disposed of.

[8] Definitions for ORS 468.155 to 468.190 and 468.962

Hazardous waste does not include radioactive material or the radioactively contaminated containers and receptacles used in the transportation, storage, use or application of radioactive waste, unless the material, container or receptacle is classified as hazardous waste under paragraph (a), (b) or (c) of this subsection on some basis other than the radioactivity of the material, container or receptacle. Hazardous waste does include all of the following which are not declassified by the commission under ORS 466.015 (3):

(a) Discarded, useless or unwanted materials or residues resulting from 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 defoliants, desiccants, fungicides, herbicides, insecticides, nematocides and rodenticides.

(b) Residues resulting from any process of industry, manufacturing, trade or business or government or from the development or recovery of any natural resources, if such residues are classified as hazardous by order of the commission, after notice and public hearing. For purposes of classification, the commission must find that the residue, because of its quantity, concentration, or physical, chemical or infectious characteristics may:

(A) Cause or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness; or

(B) Pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.

(c) Discarded, useless or unwanted containers and receptacles used in the transportation, storage, use or application of the substances described in paragraphs (a) and (b) of this subsection.

OAR 340-016-0060 [9]

(4) Eligible Activities. The facility shall prevent, reduce, control, or eliminate: … (c) Hazardous Waste. The facility shall treat, substantially reduce or eliminate hazardous waste as defined in ORS 466.005… .

[9] Eligibility

Material Recovery

Recommendations and Eligibility Criteria

DEQ recommends the Commission approve **$693,663** in tax credits to **13** applicants who invested in recycling containers, trucks and balers (facility) used in a material recovery process. Each facility is eligible for a tax credit because it meets the criteria in:

☑ ORS 468.155 (1)(a) and OAR 340-016-0060 (2)(a) - The sole purpose of the facility is to prevent, control, or reduce a substantial quantity of solid waste. (This is item 5 on the longer format.)

☑ ORS 468.155 (1)(b)(D), OAR 340-016-0010(7) and OAR 340-016-0060(4)(e) – The facility prevents, controls, or reduces waste material by using a material recovery process. The process obtains useful material from material that would otherwise be solid waste. (This is item 6 on the longer format.)

☑ ORS.468.170 (4)(a) - Each facility satisfies the intents and purposes of ORS chapter 459A - Refuse and Recycling. (This is item 7 on the longer format.)

☑ ORS 468.155(3), ORS 468.170(1) and OAR 340-016-0070 - The facility cost on each application represents the actual cost of the installation and does not exceed the taxpayer's (applicant) own cash investment in the facility. (This is item 8 on the longer format.)

☑ ORS 468.190 (3) for facilities that cost less than $50,001, ORS 468.170(1) and ORS 468.190(1) for facilities that cost over $50,000 - Each applicant accurately determined and DEQ verified the percentage of the facility cost allocable to material recovery. (This is item 9 on the longer format.)

☑ ORS 468.173(3)(d) - The maximum tax credit is 35 percent because the applicants submitted their applications between January 1, 2002, and December 31, 2008, inclusively, and the applicant uses the certified facility for material recovery or recycling. (This is item 10 on the longer format.)

Material Recovery – Short Format

No.	Applicant	Facility

7343 Garbarino Disposal & Recycling Service, Inc
S Corp:

Facility Cost		**$3,206**
% Allocable	X	**100 %**
Applicable %	X	**35 %**
Tax Credit		$1,122

500 14-gallon Rehrig Pacific Company model RB503RE05GA006A recycling bins

Garbarino Disposal & Recycling Service, Inc provides garbage and recycling collection service to 5,500 customers in Washington County. The applicant claims bins placed with its residential customers for collecting commingled recyclable materials. The company then transports the material to its site in North Plains for additional sorting and sale to the appropriate mills for additional processing and/or sale as feedstock used in the manufacture of new products.

The sole purpose of the claimed facility is to remove approximately 195 tons of solid waste from landfill disposal each year.

The EQC has issued 25 certificates to Global Leasing, Inc at this location and three to the applicant. The claimed facility is not a replacement to any previously certified facility.

PO Box 250
North Plains, OR 97133

30966 NW Hillcrest
North Plains, OR 97133

7348 L & M K Enterprises, LLC
LLC: 20-0215126

Facility Cost		**$29,190**
% Allocable	X	**100 %**
Applicable %	X	**35 %**
Tax Credit		$10,217

568 95-gallon model ROC-95U wheeled recycling carts, serial numbers 6551 through 7118

L & M K Enterprises (lessor, applicant) leases commercial machinery and equipment primarily to recycling and garbage collection companies. The applicant claims carts leased to Pacific Sanitation, Inc (lessee, operator.) The lessee uses the carts to collect recyclable materials from Mill City residents, preventing approximately 137 tons of solid waste from landfill disposal each year. The operator delivers the materials to Marion Resource Recovery Facility for additional sorting and to other facilites for additional processing.

The operator serves 9,645 residential and 819 commercial customers in Marion County including the 544 residential and 64 customers in Mill City.

The EQC issued two certificates to the applicant for equipment leased to the operator and eight to the lessee. The claimed facility is not a replacement of a previously certified facilities.

No.	Applicant	Facility
7348 cont.	PO Box 17669 Salem, OR 97305-7669	Pacific Sanitation, Inc 3475 Blossom Drive Salem, OR 97305

7365 Global Leasing, Inc
S Corp: 93-1097105610

One UD Model 2300 LP Truck, VIN JNALC80H67A560080 equipped with a Wayne Tomcat 10-yard side loader, serial number 16903

Facility Cost		**$17,761**
% Allocable	X	**100 %**
Applicable %	X	**35 %**
Tax Credit		$6,216

Global Leasing, Inc (applicant, lessee) is an equipment leasing company. The company claims a truck equipped with a side loader leased to Garbarino Disposal & Recycling Service, Inc (operator, lessee) who operates in Washington County.

The operator uses the truck to collect commercial glass (20 percent of the annual tonnage) and residential solid waste (80 percent of the annual tonnage). The applicant accurately claimed 20 percent ($17,761) of the total truck cost ($88,804.) The lessee transports the glass to its facility for additional sorting and sale as feedstock in manufacturing new products.

The sole purpose of the claimed facility is to remove approximately 80 tons of solid waste from landfill disposal each year.

The EQC has issued 25 certificates to the applicant and 3 to the operator at this location. The claimed facility is not a replacement to any previously certified facility.

PO Box 250
North Plains, OR 97133

Same as the applicant's address.

7367 Deschutes Transfer Company, Inc
S Corp

One 2006 Volvo Tractor, VIN 4V5KC9GG66N437553
One General Equipment Company Planetary Roll-Off System, serial number GE0690905

Facility Cost		**$134663**
% Allocable	X	**100 %**
Applicable %	X	**35 %**
Tax Credit		$47,132

Deschutes Transfer Company, Inc claims a truck, equipped with the roll-off system, to collect drop boxes containing commingled materials from transfer stations in Deschutes County. The truck then transports the drop boxes to the recycling center at Knott Landfill in Bend, Oregon. The recycling center bales and ships the materials to market.

The sole purpose of the new truck is to remove approximately

No.	Applicant	Facility
7367 cont.		1,100 tons of recoverable materials from landfill disposal. The new truck is part of a process that increased recycling at the transfer stations by about 54 percent. The EQC issued two certificates to the applicant, two certificates to Deschutes Recycling, LLC and four certificates to Bend Garbage Company, Inc at the same address.
	PO Box 504 Bend, OR 97709	20835 NE Montana Way Bend, OR 97701
7391	**Newberg Garbage Service, Inc** S Corp: 93-0625804	One 2006 Peterbilt automated truck, VIN 1NPZL00X66D716326 One Labrie Automizer Cool Hand Split Body Side Loader, serial number SFO5105DUS
	Facility Cost **$125,767** % Allocable X **100 %** Applicable % X **35 %** Tax Credit $44,018	Newberg Garbage Service is the garbage and recycling provider for the cities of Newberg, Dundee, Sherwood, east Yamhill County and portions of Washington County. The applicant claims 56.5 percent of a new split body truck to collect recyclable materials and yard debris from its residential customers in the City of Newberg where they serve 5,248 residential and 511 commercial customers. The sole purpose of the eligible portion of the truck is to collect approximately 398 tons of recyclable materials and 565 tons of yard debris each year. The company transports the commingled materials to SP or KB Recycling for additional sorting and the yard debris to NW Greenlands for composting. The company accurately subtracted 43.5 percent from the total truck cost for the percentage of time they use the truck to collect and haul residual waste to the landfill. DEQ verified the percentage of the facility allocable to pollution control presented on the application. The EQC issued 18 certifictes to the applicant that included two trucks. The claimed truck reflect the growth in the service area is not a replacement of a previouly certified truck.
	PO Box 1000 Newberg, OR 97132	Same as the applicant's address.

No.	Applicant	Facility
7418	**City Sanitary & Recycling** C Corp: 93-0724867	Ten 4-yard front load DeWald model number 75E recycling containers for cardboard Nine 6-yard front load DeWald model number 76E recycling containers for cardboard
	Facility Cost **$14,820** % Allocable X **100 %** Applicable % X **35 %** Tax Credit $5,187	City Sanitary & Recycling operates in Yamhill and Polk Counties. The applicant claims lidded containers placed with 19 of the company's 893 commercial customers for collecting cardboard. The company collects and delivers the cardboard to a recycling facility for additional sorting, baling and delivery to regional mills that incorporate it into new products. The sole purpose of containers is to collect approximately 95 tons of the 3,300 tons of cardboard that the company collects each year thus diverting it from the landfill. The EQC has issued three certificates to KE Enterprises, the applicant's parent company, but none to the applicant or to the facility address.
	1850 NE Lafayette Avenue PO Box 509 McMinnville, OR 97128	Same as the applicant's address.
7435	**City Sanitary & Recycling** C Corp: 93-0724867	2,544 95-gallon model 76596 recycling collection carts, serial numbers A9196551-A9197186, B9197957-B9199228 and B9199973-B9200608
	Facility Cost **$135,210** % Allocable X **100 %** Applicable % X **.35 %** Tax Credit $47,324	City Sanitary & Recycling operates in Yamhill County. The company has 17,399 residential customers, collecting and processing 2,769 tons of mixed residential waste each year. The applicant claims lidded carts placed with its residential customer to collect commingled recyclable materials. The company then transports the material to its recycling facility (Western Oregon Waste) for additional sorting and delivery to regional mills that incorporate it into new products. The sole purpose of the containers is to divert approximately 669 tons of mixed residential waste from landfill disposal each year. The EQC has issued three certificates to KE Enterprises, the applicant's parent company, but none to the applicant or to the facility address.
	1850 NE Lafayette Avenue PO Box 509 McMinnville, OR 97128	Same as the applicant's address.

No.	Applicant	Facility

7442 **Bend Garbage Company, Inc**
C Corp: 93-0890916

Facility Cost		**$195,356**
% Allocable	X	**100 %**
Applicable %	X	**35 %**
Tax Credit		$68,375

One 2004 Autocar model WX64, serial number 5VCD6BE54H200547
One Leach FLC-2102 40-yard full eject body
One Drop axel/suspension

Bend Garbage Company Inc collects garbage and recyclable materials from its 12,637 residential and 1,247 commercial customers.

The applicant claims a front-load truck used for the sole purpose of collecting 2,373 tons of corrugated cardboard from 621 commercial customers. The company delivers the cardboard to the recycling center for baling and shipping to regional mills for remanufacture into new paper products.

The EQC has issued ten certificates to the applicant certifying a recycling depot, containers and four trucks. The claimed truck is not a replacement of a previously certified truck.

PO Box 804
Bend, OR 97709

Bend Garbage & Recycling Inc
20835 NE Montana Way
Bend, OR 97701

7446 **Sunset Refuse & Recycling**
C Corp: 93-1131527

Facility Cost		**$7,244**
% Allocable	X	**100 %**
Applicable %	X	**35 %**
Tax Credit		$2,535

Eight 2-yard rear-load DeWald model number 63E recycling containers for cardboard
Three 6-yard front-load DeWald model number 76E recycling containers for cardboard

Sunset Refuse & Recycling operates in Clatsop County. The applicant claims lidded containers for collecting cardboard placed with 11 of the company's 740 commercial customers.

The company collects and delivers the cardboard to a recycling facility for additional sorting, baling and delivery to regional mills that incorporate it into new paper products.

The sole purpose of containers is to collect approximately 62 of the 2,326 tons of cardboard that the company collects each year thus diverting it from the landfill.

The EQC has issued three certificates to KE Enterprises, the applicant's parent company, but none to the applicant or to the facility address.

PO Box 509
McMinnville, OR 97128

2320 SE 12th Place
Warrenton, OR 97146

No.	Applicant	Facility

7447 **Sunset Refuse & Recycling**
C Corp: 93-1131527

Facility Cost		**$9,995**
% Allocable	X	**100 %**
Applicable %	X	**35 %**
Tax Credit		$3,498

1,500 14-gallon Rehrig Pacific model RB-N recycling bins

Sunset Refuse & Recycling operates in Clatsop County. The applicant claims lidded containers placed with 1,500 residential customers to collect recyclable materials.

The applicant delivers the material to its recycling facility for additional processing and subsequent delivery to regional mills for incorporation into new products.

The sole purpose of the containers is to divert approximately 143 tons of recyclable materials from landfill disposal each year. The company's 9,331 residential customers divert approximately 840 of recyclable material from landfill disposal each year.

The EQC has issued three certificates to KE Enterprises, the applicant's parent company, but none to the applicant or to the facility address.

PO Box 509
McMinnville, OR 97128

2320 SE 12th Place
Warrenton, OR 97146

7452 **Safeway, Inc**
C Corp: 94-3019135

Facility Cost		**$24,138**
% Allocable	X	**100 %**
Applicable %	X	**35 %**
Tax Credit		$8,448

Two M60MD Harmony Enterprises hydraulic balers:
1. Tillamook - Store number 2723, serial number 601686MD
2. Coquille - Store number 4262, serial number 601687MD

Safeway, Inc is a retail grocer that accepts cartons continaing grocery shipments.

The company claims two hydraulic balers to recycle corrugated cardboard. Each baler processes the used cardboard into bales reducing the stores' solid waste disposal by 45 to 50 percent.

The company transports the baled cardboard to a central consolidation point where recycling vendors collect the material and deliver it to regional mills for incorporation into paper or wood products. Stores without balers dispose of cardboard in dumpsters for landfill disposal. The 103 Oregon stores recycled 21,135 tons of cardboard in 2006.

No.	Applicant	Facility
7452 cont.		The sole purpose of each baler is to prevent approximately 361,300 pounds of cardboard per year, per store, from landfill disposal. The EQC has issued 18 certificates to Safeway, Inc certifying a wastewater treatment system, underground storage tank upgrades and 66 balers. The claimed balers are not replacements to any previously certified facility.
	Tax Division 5918 Stoneridge Mall Road Pleasanton, CA 94588	Various Oregon locations
7453	**Safeway, Inc** C Corp: 93-3019135 Facility Cost **$29,330** % Allocable X **100 %** Applicable % X **35 %** Tax Credit $10,266	Three M60STD Harmony Enterprises hydraulic balers: 1. Boring - Store number 521, serial number 602908STD 2. Gresham - Store number 1070, serial number 602838STD 3. Troutdale - Store number 1542, serial number 602808STD Safeway, Inc is a retail grocer that accepts cartons containing grocery shipments. The company claims three hydraulic balers to recycle corrugated cardboard. Each baler processes the used cardboard into bales reducing the stores' solid waste disposal by 45 to 50 percent. The company transports the baled cardboard to a central consolidation point where recycling vendors collect the material and deliver it to regional mills for incorporation into paper or wood products. Stores without balers dispose of cardboard in dumpsters for landfill disposal. The 103 Oregon stores recycled 21,135 tons of cardboard in 2006. The sole purpose of each baler is to prevent approximately 361,300 pounds of cardboard per year, per store, from landfill disposal. The EQC has issued 18 certificates to Safeway, Inc certifying a wastewater treatment system, underground storage tank upgrades and 66 balers. The claimed balers are not replacements to any previously certified facility.
	Tax Division 5918 Stoneridge Mall Road Pleasanton, CA 94588	Various Oregon locations

Material Recovery – Long Format

The review for application number 7363, Umpqua Bank Leasing, is after this page.

Material Recovery References

ORS 468.155[10]

Such prevention, control or reduction required by this subsection shall be accomplished by the use of a material recovery process which obtains useful material from material that would otherwise be, hazardous waste as defined in ORS 466.005, or used oil as defined in ORS 459A.555. ORS 459.005 provides the following definition of solid waste.

> Solid Waste: All useless or discarded putrescible and non-putrescible materials, including but not limited to garbage, rubbish, refuse, ashes, paper and cardboard, sewage sludge, septic tank and cesspool pumpings or other sludge, useless or discarded commercial, industrial, demolition and construction materials, discarded or abandoned vehicles or parts thereof, discarded home and industrial appliances, manure, vegetable or animal solid and semisolid materials, dead animals and infectious waste as defined in ORS 459.386. ORS 459.005(24).

OAR 340-016-0060[11]

> (4) Eligible Activities. The facility shall prevent, reduce, control, or eliminate hazardous waste, solid waste and used oil. The facility shall eliminate or obtain useful material from material that would otherwise be solid waste as defined in ORS 459.005, hazardous waste as defined in ORS 466.005, or used oil as defined in ORS 468.850. The facility shall produce an end product of utilization that is an item of real economic value and is competitive with an end product produced in another state. The facility shall produce the end product by mechanical processing, chemical processing; or through the production, processing, pre-segregation, or use of materials which:
>
> (A) Have useful chemical or physical properties which 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.

[10] Definitions for ORS 468.155 to 468.190 and 468.962
[11] Eligibility

State of Oregon
Department of
Environmental
Quality

Pollution Control Facility Tax Credit

ORS 468.150 -- 468.190
OAR 340-016-0005 -- 340-016-0080

Application No. 7363
Umpqua Bank Leasing

1 DEQ's Recommendation for Certification: Approve Final Certification

Umpqua Bank Leasing submitted an application for the certification of a material recovery facility on December 1, 2006. The applicant filed the application within the required one-year filing period in ORS 468.165(6).

Sections 3 through 7 of this report provide the Department of Environmental Quality (DEQ) analysis of the facility claimed on application number 7363. DEQ determined that the facility:

- Meets the definition of a pollution control facility,
- Is necessary to satisfy the intents and purposes of DEQ regulations, and
- Is eligible for the tax credit.

DEQ's analysis of the facility cost, the percentage of the facility cost allocable to pollution control and the maximum allowable percentage are in sections 8, 9 and 10, respectively. The State of Oregon uses these three components to calculate the tax credit shown below.

Facility Cost		**$1,255,215**
Percentage Allocable	X	**100 %**
Maximum Allowable Percentage	X	**35 %**
Tax Credit		$439,325

2 Applicant Identification

Umpqua Bank Leasing
6400 SW Corbett Ave
Portland, OR 97239-3558

Organized as: C Corp
Taxpayer ID: 93-1261319

3 Material Recovery of Solid Waste Facility Identification

Pride Disposal Company
13980 Tualatin-Sherwood Rd
Sherwood, OR 97140

The EQC's certification will identify the facility as:

648	65-gallon recycling carts, serial numbered 000010-000333 and 018783-019106
13,602	95-gallon recycling cart, serial numbered 22089-22520 and T001299-T013172

10	4-yard containers for cardboard recycling, serial numbered 192858-192867
4	Used 2003 Sterling Condor recycling trucks, VIN numbers: 49HABVCY33RL64957, 49GABVCY53RL64958, 49HABVCY33RL64960, and 49HHBVCY13RL64938
4	Truck bodies, numbers 4053, 4054, 4055, and 15684

4 Business and Facility Background

Umpqua Bank Leasing (lessor, applicant) leases equipment to businesses. The applicant claims equipment leased to Pride Disposal Company (lessee, operator.) The lessee collects refuse and recycling from its 21,500 residential and 410 commercial customers in the cities of Sherwood, King City, Tigard and parts of Washington County. Currently, the operator collects approximately 11,310 tons of recyclable materials per year. This represents an increase in recycling service by 1,100 residential and 20 commercial customers and 1,035 tons per year above 2005 service levels.

The applicant claims 95-gallon carts that allow automated collection using four recycling trucks installed with automated truck bodies. The operator placed the 65-gallon recycling carts with Beaverton residential customers and the 95-gallon carts with Tigard/Sherwood area residential customers to collect commingled recyclable materials. The applicant also claims carts placed with the lessee's commercial customers to collect cardboard.

5 ☑ Meets Criteria in ORS 468.155 (1)(a)(B); OAR 340-016-0060 (2)(a)

The sole purpose of the recycling carts and trucks is to prevent solid waste from landfill disposal. The carts collect and the trucks haul approximately 1,164 tons of commingled materials each year. The 4-yard containers collect approxiamtely 50 tons of cardboard each year.

Criteria The sole purpose, meaning the exclusive purpose, of the facility is to prevent, control or reduce a substantial quantity of solid waste, hazardous waste or used oil.

Solid waste as defined by ORS 459.005: All useless or discarded putrescible and non-putrescible materials, including but not limited to garbage, rubbish, refuse, ashes, paper and cardboard, sewage sludge, septic tank and cesspool pumping or other sludge, useless or discarded commercial, industrial, demolition and construction materials, discarded or abandoned vehicles or parts thereof, discarded home and industrial appliances, manure, vegetable or animal solid and semisolid materials, dead animals and infectious waste as defined by ORS 459.386(b) excludes "Materials used for fertilizing or for other productive purposes or which are salvageable as such material are used

on land in agricultural operations and the growing or harvesting of crops and the raising of animals."

6 ☑ Meets Criteria in ORS 468.155 (1)(b)(D), OAR 340-016-0010(7) and OAR 340-016-0060(4)(e)

The carts and the trucks reduce waste materials as part of a material recovery process. The trucks transport the recovered materials to a processor for additional sorting and shipment to the appropriate mills to be incorporated into new products.

Criteria — The claimed facility prevents, controls, or reduces waste material by using a material recovery process. The process obtains useful material from material that would otherwise be solid waste, hazardous waste or used oil.

Material recovery means any process, such as pre-segregation, for obtaining materials from solid waste, hazardous waste or used oil. The recovered material 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 product of real economic value.

7 ☑ Meets Criteria in ORS.468.170 (4)(a)

The facility satisfies the intents and purposes of ORS chapter 459A (Refuse and Recycling.)

Criteria — The facility is necessary to satisfy the intents and purposes of ORS 454.010 to 454.040, 454.205 to 454.255, 454.505 to 454.535, 454.605 to 454.755, ORS chapters 459, 459A, 466 and 467 and ORS chapters 468, 468A and 468B and rules there under.

8 ☑ Meets Criteria in ORS 468.155(3), ORS 468.170(1), OAR 340-016-0070

The eligible facility cost represents the applicant's own cash investment. Paid invoices document the eligible facility cost of $1,255,215. The applicant did not include any ineligible costs in the application. The EQC previously issued two Pollution Control Facilities Tax Credit Certificates that included two Peterbilt trucks to the lessee and operated by the lessor. The EQC did not certify the replaced bins. No component of the claimed facility is a replacement of a previously certified facility.

9 ☑ Meets Criteria in ORS 468.170(1), ORS 468.190(1)

The percentage of the facility cost allocable to pollution control is 100 percent. The certified facility cost exceeds $50,000; therefore, the applicant and the Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3) considering the five factors listed in the criteria section below and a 5-year useful life. The claimed facility does not produce a salable or usable commodity, a revenue stream, or cost savings. Expenditures exceed revenue; therefore, the resulting Facility ROI is less than the National ROI for 2006, the facility's construction completion year. The applicant did not investigate an alternative technology.

Criteria — The certified facility cost exceeds $50,000; therefore, the following factors help determine the percentage of the cost allocable to reducing solid waste.

a. The extent to which the applicant uses the facility to recover and convert waste products into a salable or usable commodity;

b. The estimated annual percent return on the investment in the facility;

c. Any alternative methods, equipment, and costs for achieving the same pollution control objective;

d. Any related savings or increase in costs that occur or may occur as a result of the installation of the facility; and

e. Any other relevant factors.

10 ☑ Meets Criteria in ORS 468.173(3)(d)

The maximum tax credit is 35 percent because the applicant submitted the application on December 21, 2006, and the facility is used for material recovery or recycling.

Criteria — The maximum tax credit is 35 percent if the applicant submitted the application between January 1, 2002, and December 31, 2008, inclusively, and the facility is used for material recovery or recycling.

Reviewer: Maggie Vandehey, DEQ, Tax Credit Program Manager

Nonpoint Source Pollution Controls

Recommendations and Eligibility Criteria

DEQ recommends the Commission approve **$23,689** in tax credits to **two** applicants that claim no-till drills for certification as nonpoint source (NPS) pollution control facilities. Each facility is eligible for a tax credit because it meets the criteria in:

☑ ORS 468.155 (1)(a)(B), OAR 340-016-0060 (2)(a) and OAR 340-041-0006(17) - The sole purpose of each facility is to reduce a substantial quantity of NPS.

☑ ORS 468.155 (2)(b), OAR 340-016-0060 (4)(h)(B)(i) – Each farm invested in a method the EQC determined to reduce significant amounts of nonpoint source pollution supported by United States Department of Agriculture or Oregon State University research.

☑ ORS.468.170 (4)(a) - Each facility satisfies the intents and purposes of ORS chapters 468A and 468B - Air and Water Pollution.

☑ ORS 468.155(3), ORS 468.170(1) and OAR 340-016-0070 - The facility cost on each application represents the actual cost of the installation and does not exceed the taxpayer's (applicant) own cash investment in the facility.

☑ ORS 468.190 (3) for facilities that cost less than $50,001, ORS 468.170(1) and ORS 468.190(1) for facilities that cost over $50,000 - Each applicant accurately determined and DEQ verified the percentage of the facility cost allocable to air pollution control.

☑ ORS 468.173(3)(c) - The maximum tax credit is 35 percent because the applicants submitted their applications between January 1, 2002, and December 31, 2008, inclusively, and the certified facility is a nonpoint source pollution control.

NPS Pollution Controls – Short Format

No.	Applicant			Facility
7347	**Northwoods Nursery, Inc** C Corp: 93-1283726			One – Used Tye Cover Cropper, model 104/114-431 7-foot no-till seed drill, serial # K-2-3769-8-CC.
	Facility Cost		**$2,578**	The drill allows the nursery to plant cover crops on fallow fields and between cultivated rows to minimize soil erosion, a source of nonpoint source pollution. The United States Department of Agriculture worked with the applicant in partnership with Clackamas County Soil and Water Conservation to develop a best management practice plan on the 66-acre nursery. The plan identifies nonpoint source pollution on the property as a priority.
	% Allocable	X	**100 %**	
	Applicable %	X	**35 %**	
	Tax Credit		$902	
				The EQC has not issued any Pollution Control Facilities Tax Credit certificates to the applicant.
	28696 S Cramer Road Molalla, OR 97038			Same as the applicant's address.
7396	**Daily Bread Farm, Inc** S Corp: 74-3076809			One - ConservaPak, model CP3912 40 Opener no-till drill, serial # 39120605.
	Facility Cost		**$91,700**	The drill allows the dryland farm to direct seed and fertilize without any tillage to minimize soil erosion, a source of nonpoint source pollution. The Oregon State University Extension Office in Morrow County provided a letter on behalf of the applicant stating the reduced tillage system reduces nonpoint pollution.
	% Allocable	X	**71 %**	
	Applicable %	X	**35 %**	
	Tax Credit		$22,787	
				The claimed facility cost was more than $50,000; therefore, the applicant used the standard method in OAR 340-016-0075 for determining the percentage of the facility cost allocable to pollution control. The applicant accurately excluded the federal government's Conservation Security Program payment for using the equipment.
				The EQC has not issued any Pollution Control Facilities Tax Credit certificates to the applicant. The facility does not replace a previously certified no-till drill.
	65528 Halvorsen Lane Ione, OR 97843			Same as the applicant's address.

NPS Pollution Controls – Long Format

There are no long format reviews for nonpoint source pollution controls.

NPS Pollution Control References

ORS 468.155[12]

(2)(a) As used in ORS 468.155 to 468.190, "pollution control facility" or "facility" includes a nonpoint source pollution control facility.

(b) As used in this subsection, "nonpoint source pollution control facility" means a facility that the Environmental Quality Commission has identified by rule as reducing or controlling significant amounts of nonpoint source pollution.

OAR 340-016-0010[13]

Nonpoint Source Pollution means pollution that comes from numerous, diverse, or widely scattered sources of pollution that together have an adverse effect on the environment. The meaning includes:

(a) The definition provided in OAR 340-041-0006(17); or

(b) Any sources of air pollution that are:

(A) Mobile sources that can move on or off roads; or

(B) Area sources.

[12] Definitions for ORS 468.155 to 468.190 and 468.962
[13] Definitions

OAR 340-016-0060[14]

(4) Eligible Activities. The facility shall prevent, reduce, control, or eliminate: … (h) Nonpoint Source Pollution. Pursuant to ORS 468.155(2)(b), the EQC has determined that the following facilities reduce or control significant amounts of nonpoint source pollution:

(A) Any facility that implements a plan, project, or strategy to reduce or control nonpoint source pollution as documented:

(i) By one or more partners listed in the Oregon Nonpoint Source Control Program Plan; or

(ii) In a federal Clean Air Act State Implementation Plan for Oregon; or

(B) Any facility effective in reducing nonpoint source pollution as documented in supporting research by:

(i) Oregon State University, Agricultural Experiment Station; or

(ii) The United States Department of Agriculture, Agriculture Research Service; or

(iii) The Oregon Department of Agriculture; or

(C) Wood chippers used to reduce openly burned woody debris; or

(D) The retrofit of diesel engines with a diesel emission control device, certified by the U.S. Environmental Protection Agency.

[14] Eligibility

Water Pollution Controls

Recommendations and Eligibility Criteria

DEQ recommends the Commission approve **$564,681** in tax credits to **six** applicants that claim systems (facilities) that reduce water pollution from industrial waste. One review is in short review format and four are in long review format. Each facility is eligible for a tax credit because it meets the criteria in:

☑ ORS 468.155 (1)(a) and OAR 340-016-0060 (2)(a) - The principal purpose of the facility is to reduce water pollution in response to a DEQ or federal EPA imposed condition or the sole purpose of the facility is to reduce a substantial quantity of water pollution. (This is item 5 on the longer review format.)

☑ ORS 468.155 (1)(b)(B) – The facility accomplishes the prevention, control or reduction by disposal or elimination of industrial wastewater and the use of a treatment works for industrial waste defined in ORS 468B.005. (This is item 6 on the longer review format.)

☑ ORS.468.170 (4)(a) - The facility satisfies the intents and purposes of ORS chapter 468B - Water Pollution. (This is item 7 on the longer review format.)

☑ ORS 468.155(3), ORS 468.170(1) and OAR 340-016-0070 - The facility cost on each application represents the actual cost of the installation and does not exceed the taxpayer's (applicant) own cash investment in the facility. (This is item 8 on the longer review format.)

☑ ORS 468.190 (3) for facilities that cost less than $50,001, ORS 468.170(1) and ORS 468.190(1) for facilities that cost over $50,000 - The applicant accurately determined and DEQ verified the percentage of the facility cost allocable to water pollution control. (This is item 9 on the longer review format.)

☑ ORS 468.173(3) - The maximum tax credit is 35 percent because the applicant submitted their applications between January 1, 2002, and December 31, 2008, inclusively, and the facility or the applicant met one of the conditions in the law as identified in the review. (This is item 10 on the longer review format.)

Water Pollution Control – Short Format

No.	Applicant	Facility
7397	**North Plains Forest Products, Inc** S Corp: 93-1090021	One - Northwest Thermal Systems evaporator
	Facility Cost **$43,100** % Allocable X **100 %** Applicable % X **35 %**[1] Tax Credit $15,085	North Plains Forest Products, Inc re-manufactures and distributes manufactured forest products, primarily softwood lumber. The company kiln dries, planes, re-saws and edges lumber. The boiler used in kiln drying produces blow down water containing iron, silicone, algae and various chemicals used to maintain boiler efficiencies.
	[1] ORS 468.173(3)(f) Facility Cost under $200K	The applicant claims an evaporator that consists of a pressure vessel and a steam coil to evaporate the water coming off the boiler. The principal purpose of the claimed facility is to prevent Boilogical Oxygen Demand concentrations from endangering aquatic life in McKay Creek; thereby, meeting the applicant's permit limits in National Pollutant Discharge Elimination System (NPDES) permit 101634. The EQC has not issued any Pollution Control Facilities Tax Credits to the applicant.
	PO Box 279 North Plains, OR 97133	Same as the applicant's address.

Water Pollution Control – Long Format

The following water pollution controls reviews are in the long format organized in application number order after Page 4.

App #	Applicant	Tax Credit
7344	Sunstone Circuits, LLC	$ 69,340
7351	Clough Oil Company	49,369
7362	Oregon Steel Mills, Inc	11,685
7393	JELD-WEN, Inc	384,344
7404	Conrad Wood Preserving Company, Inc	84,226

Water Pollution Control References

ORS 468.155[15]

(1)(a) As used in ORS 468.155 to 468.190 and 468.962, unless the context requires otherwise, "pollution control facility" or "facility" means any land, structure, building, installation, excavation, machinery, equipment or device, or any addition to, reconstruction of or improvement of, land or an existing structure, building, installation, excavation, machinery, equipment or device reasonably used, erected, constructed or installed by any person if:

(A) The principal purpose of such use, erection, construction or installation is to comply with a requirement imposed by the Department of Environmental Quality, the federal Environmental Protection Agency or regional air pollution authority to prevent, control or reduce…water …pollution…; or

(B) The sole purpose of such use, erection, construction or installation is to prevent, control or reduce a substantial quantity of…water…pollution…

(1)(b) Such prevention, control or reduction required by this subsection shall be accomplished by:… (B) The disposal or elimination of or redesign to eliminate industrial waste and the use of treatment works for industrial waste as defined in ORS 468B.005 …

[15] Definitions for ORS 468.155 to 468.190 and 468.962

ORS 468B.005 provides the following pertinent definitions.

> Industrial waste means any liquid, gaseous, radioactive or solid waste substance or a combination thereof resulting from any process of industry, manufacturing, trade or business, or from the development or recovery of any natural resources.
>
> Treatment works means any plant or other works used for the purpose of treating, stabilizing or holding wastes.
>
> Wastes means sewage, industrial wastes, and all other liquid, gaseous, solid, radioactive or other substances that will or may cause pollution or tend to cause pollution of any waters of the state.
>
> Water pollution means such alteration of the physical, chemical or biological properties of any waters of the state, including change in temperature, taste, color, turbidity, silt or odor of the waters, or such discharge of any liquid, gaseous, solid, radioactive or other substance into any waters of the state, which will or tends to, either by itself or in connection with any other substance, create a public nuisance or which will or tends to render such waters harmful, detrimental or injurious to public health, safety or welfare, or to domestic, commercial, industrial, agricultural, recreational or other legitimate beneficial uses or to livestock, wildlife, fish or other aquatic life or the habitat thereof.

OAR 340-016-0060(4)[16]

> Eligible Activities. The facility shall prevent, reduce, control, or eliminate industrial waste. The facility shall dispose of, eliminate or be redesigned to eliminate industrial waste and the use of treatment works for industrial wastewater as defined in ORS 468B.005.
>
> For underground storage tank systems,
>
> (g) Spills or Unauthorized Releases. The facility shall be used to detect, defer or prevent spills or unauthorized releases. This does not include any facility installed, constructed or used for cleanup after a spill or unauthorized release has occurred …

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[16] Eligibility

State of Oregon
Department of
Environmental
Quality

Pollution Control Facility Tax Credit

ORS 468.150 -- 468.190
OAR 340-016-0005 -- 340-016-0080

Application No. 7344
Sunstone Circuits, LLC

1 DEQ's Recommendation for Certification: Approve Final Certification

Sunstone Circuits, LLC submitted an application for the certification of a water pollution control on November 13, 2006. The applicant filed the application within the one-year filing period required in ORS 468.165(6).

Sections 3 through 7 of this report provide the Department of Environmental Quality (DEQ) analysis of the facility claimed on Application Number 7344. DEQ determined that:

- The facility meets the definition of a pollution control facility;
- The facility is necessary to satisfy the intents and purposes of DEQ regulations; and
- The facility is eligible for the tax credit.

DEQ's analysis of the facility cost, the percentage of the facility cost allocable to pollution control and the maximum allowable percentage are in sections 8, 9 and 10, respectively. The State of Oregon uses these three components to calculate the tax credit shown below.

Facility Cost		**$198,114**
Percentage Allocable	X	**100 %**
Maximum Allowable Percentage	X	**35 %**
Tax Credit		$69,340

2 Applicant Identification

Sunstone Circuits, LLC
13626 South Freeman Road
Mulino, OR 97042

Organized as: LLC
Taxpayer ID: 20-3088833

3 Water Pollution Control Facility Identification

Same as the applicant's address.

The certificate will identify the facility as:

A Wastewater Treatment System

4 Business and Facility Background

Sunstone Circuits, LLC manufactures single– and double–sided, and multi-layered printed circuit boards for commercial, medical and consumer applications. The photographic film process uses silver films, and development and fix chemistry that can release small amounts of silver and ammonia to wastewater. The imaging processes use low toxicity materials that can release alkalinity and biodegradable organics to wastewater. The company uses detergents, acids, alkaline materials and metals such as copper, silver, nickel, tin, lead and gold in the electroless and electrolytic plating processes. An ammonium/copper etchant produces copper etchings. The solder processes use biodegradable organic fluxes, tin, and lead and acid cleaning solutions. The company uses alkaline detergent and acid materials in the multi-layer oxide alternative process and the multi-layer epoxy de-smear process while the latter involves alkanline potassium permanganate solutions that can add manganese compounds to the wastewater.

The company claims a treatment system to treat wastewater prior to discharge that includes an expansion of the existing wastewater treatment building and upgraded electrical, plumbing and support systems. The treatment system includes equilization tanks, reactors, clarifiers, a Kinetico multi-station pressure media filter module, a Kinetico model TI 30 membrane filter system, a Kinetico membrane cleaning unit (serial numbered J01261), an oxidation system, a bag filter unit, a Parkinson model MFP-470-100 filter press (serial numbered 80075002), a sludge re-dissolve system, a reagent feed system and a main control panel.

5 ☑ Meets Criteria in ORS 468.155 (1)(a)(A); OAR 340-016-0060 (2)(a)

The primary and most important purpose of the wastewater treatment system is to meet Schedule A of the applicant's National Pollutant Discharge Elimination System (NPDES) Permit Number 101015. The final treatment tank discharges to Outfall 001, which discharges to Milk Creek.

Criteria	The principal purpose of the facility is to comply with a DEQ or a federal Environmental Protection Agency (EPA) requirement to prevent, reduce or control water pollution. The principal purpose is the most important or primary purpose of the facility. The facility has only one primary purpose.

Pollution or water pollution means such alteration of the physical, chemical or biological properties of any waters of the state, including change in temperature, taste, color, turbidity, silt or odor of the waters, or such discharge of any liquid, gaseous, solid, radioactive or other substance into any waters of the state, which will or tends to, either by itself or in connection with any other substance, create a public nuisance or which will or tends to render such waters harmful, detrimental or injurious to public health, safety or welfare, or to domestic, commercial, industrial, agricultural, recreational or other legitimate beneficial uses or to livestock, wildlife, fish or other aquatic life or the habitat thereof. ORS 468B.005.

6 ☑ Meets Criteria in ORS 468.155 (1)(b)(B)

The new wastewater treatment system eliminates the discharge of copper by 66 percent, lead by 99 percent, silver by 90 percent, and oil and grease by about 50 percent.

Criteria — The facility accomplishes the prevention, control or reduction by disposal or elimination of industrial wastewater, and the use of a treatment works for industrial waste as defined in ORS 468B.0051.

Industrial waste means any liquid, gaseous, radioactive or solid waste substance or a combination thereof resulting from any process of industry, manufacturing, trade or business, or from the development or recovery of any natural resources. ORS 468B.005

Treatment works means any plant or other works used for the purpose of treating, stabilizing or holding wastes. ORS 468B.005

7 ☑ Meets Criteria in ORS.468.170 (4)(a)

The facility satisfies the intents and purposes of ORS chapter 468B (Water Pollution.)

Criteria — The facility is necessary to satisfy the intents and purposes of ORS 454.010 to 454.040, 454.205 to 454.255, 454.505 to 454.535, 454.605 to 454.755, ORS chapters 459, 459A, 466 and 467 and ORS chapters 468, 468A and 468B and rules thereunder.

8 ☑ Meets Criteria in ORS 468.155(3), ORS 468.170(1), OAR 340-016-0070

The eligible facility cost represents the applicant's own cash investment.
Paid invoices document the eligible facility cost. The State of Oregon has issued one Pollution Control Facilities Tax Credit Certificate to Electronic Controls Design, Inc (name change only) at this location. The company replaced the previously certified electrochemical wastewater treatment system certified on December 9, 1988. The previous Certificate Number is 2001 with a certified facility cost of $192,048. The company installed the new wastewater treatment system due to a DEQ imposed requirement.

Description of Ineligible Portion		Cost	
		Claimed	$571,780
Exclusions Paving			-22,218
Replacement The Department based the like-for-like replacement cost of the original Wastewater Treatment System on the Consumer Price Index (CPI) described in published program materials.			
Placed in Service	Oct. 1985		
Facility Cost	$192,048		
Like-for-like Factor	X 1.83		
Like-for-like Replacement Cost	$351,448		-351,448
		Certified	**$198,114**

Criteria — The certified cost is limited to the actual cost of the claimed facility and it excludes any ineligible costs in ORS 468.155(3), OAR 340-016-0070(1) and -0070(3). The certified cost does not exceed the applicant's own cash investment in the facility or portion of the facility.

The regulations exclude parking lots and road improvements. Additionally, regulations exclude replacement or reconstruction of all or part of a previously certified pollution control facility. One exception is for facilities constructed due to a requirement imposed by the DEQ or the federal Environmental Protection Agency. 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.

9 ☑ Meets Criteria in ORS 468.170(1), ORS 468.190(1)

The percentage of the facility cost allocable to pollution control is 100 percent. The certified facility cost exceeds $50,000.

The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3) considering the five factors listed under Criteria below and a seven-year useful life. The claimed facility does not produce a salable or usable commodity, a revenue stream or cost savings. Expenditures exceed revenue; therefore, the resulting Facility Return on Investment (ROI) is less than the National ROI for 2005, the facility's construction completion year. The applicant did not investigate an alternative technology.

Criteria — The certified facility cost exceeds $50,000; therefore, the following factors help determine the percentage of the cost allocable to reducing water pollution.

a. The extent to which the applicant uses the facility to recover and convert waste products into a salable or usable commodity;

b. The estimated annual percent return on the investment in the facility;

c. Any alternative methods, equipment and costs for achieving the same pollution control objective;

d. Any related savings or increase in costs that occur or may occur as a result of the installation of the facility; and

e. Any other relevant factors.

10 ☑ Meets Criteria in ORS 468.173(3)(f)

The maximum tax credit is 35 percent because the applicant submitted the application on November 13, 2006, and the certified facility cost would be $198,114.

Criteria — The maximum tax credit is 35 percent if the applicant submitted the application between January 1, 2002, and December 31, 2008, inclusively, and the facility cost does not exceed $200,000.

Reviewers: Maggie Vandehey, Tax Credit Program
Elliot Zais, PhD, NWR

State of Oregon
Department of
Environmental
Quality

Pollution Control Facility Tax Credit

ORS 468.150 -- 468.190
OAR 340-016-0005 -- 340-016-0080

Application No. 7351
Clough Oil Company

1 DEQ's Recommendation for Certification: Approve Final Certification

Clough Oil Company submitted an application for the certification of an underground storage tank system on November 15, 2006. The applicant filed the application within the one-year filing period as required in ORS 468.165(6).

Sections 3 through 7 of this report provide the Department of Environmental Quality (DEQ) analysis of the facility claimed on Application Number 7351. DEQ determined that:

- The facility meets the definition of a pollution control facility,
- The facility is necessary to satisfy the intents and purposes of DEQ regulations, and
- The facility is eligible for the tax credit.

DEQ's analysis of the facility cost, the percentage of the facility cost allocable to pollution control and the maximum allowable percentage are in sections 8, 9 and 10, respectively. The State of Oregon uses these three components to calculate the tax credit shown below.

Facility Cost		**$49,369**
Percentage Allocable	X	**100 %**
Maximum Allowable Percentage	X	**35 %**
Tax Credit		$ 17,279

2 Applicant Identification

Clough Oil Company
PO Box 338
Klamath Falls, OR 97601

Organized as: S Corp
Taxpayer ID: 93-0763352

3 Underground Storage Tank Pollution Control Facility Identification

Pacific Pride
978 Spring Street
Klamath Falls, OR 97601

The EQC's certification will identify the facility as:

Sumps under the dispensers
TLS underground tank monitoring system
8' by 6' control building

4 Business and Facility Background

Clough Oil Company is a petroleum distributer that owns commercial cardlocks and retail gas stations. The company constructed the Pacific Pride cardlock on Spring Street in Klamath Falls in 1989. The location has two fueling islands, one dispenses motor gasoline and the other dispenses diesel fuel. In 1998, the company lined the tanks and installed double-wall piping from the tanks to the dispensers. The applicant claims sumps installed under the six dispensers. The company also installed a TLS-350R underground tank monitoring system and an 8' by 6' control building.

5 ☑ Meets Criteria in ORS 468.155 (1)(a)(A); OAR 340-016-0060 (2)(a)

The primary and most important purpose of the sumps, monitoring system and control building is to prevent hazardous waste, air and water pollution. The regulations require the installation of sumps and monitors within ten years from the date of installing the protected tank system. The facility meets the federal Environmental Protection Agency (EPA) requirements for underground storage tanks and DEQ's requirements under OAR Chapter 340, Division 150, which regulate underground storage tanks to protect public health, safety, welfare and the environment from potential harmful effects of spills and releases.

Criteria

The principal purpose of the facility is to comply with a DEQ, EPA or a regional requirement to prevent, reduce or control water pollution. The principal purpose is the most important or primary purpose of the facility. The facility has only one primary purpose.

> Pollution or water pollution means such alteration of the physical, chemical or biological properties of any waters of the state, including change in temperature, taste, color, turbidity, silt or odor of the waters, or such discharge of any liquid, gaseous, solid, radioactive or other substance into any waters of the state, which will or tends to, either by itself or in connection with any other substance, create a public nuisance or which will or tends to render such waters harmful, detrimental or injurious to public health, safety or welfare, or to domestic, commercial, industrial, agricultural, recreational or other legitimate beneficial uses or to livestock, wildlife, fish or other aquatic life or the habitat thereof. ORS 468B.005.

6 ☑ Meets Criteria in ORS 468.155 (1)(b)(A), ORS 468.155 (1)(b)(B), ORS 468.155 (1)(b)(E), OAR 368-016-0025 (2)(g)

The sumps and monitoring system reduce the potential for water pollution using treatment works. The claimed facility meets the definition of a treatment works and a facility used to detect, deter, or prevent spills or unauthorized releases to soil, groundwater or to the atmosphere.

Criteria — The facility detects, deters or prevents spills or unauthorized releases. OAR 368-016-0025 (2)(g)

7 ☑ Meets Criteria in ORS.468.170 (4)(a)

The facility satisfies the intents and purposes of ORS chapters 468B (Water Pollution.)

Criteria — The facility is necessary to satisfy the intents and purposes of ORS 454.010 to 454.040, 454.205 to 454.255, 454.505 to 454.535, 454.605 to 454.755, ORS chapters 459, 459A, 466 and 467 and ORS chapters 468, 468A and 468B and rules thereunder.

8 ☑ Meets Criteria in ORS 468.155(3), ORS 468.170(1), OAR 340-016-0070

The eligible facility cost represents the applicant's own cash investment. Paid invoices document the eligible facility cost of $49,368. The applicant accurately calculated the cost of the automatic tank gauge system at 90 percent of the cost as provided in the application. The State of Oregon has issued three Pollution Control Facilities Tax Credit Certificates to the applicant, one at this location. The claimed facility is not a replacement of the previously certified facility.

Paid invoices document the Recommended - Facility Cost below.

Section	Description	Facility Cost
	Claimed	$50,638.00
8	Strong Electric work performed at another location	-63.12
	Halvorsen's Rentals Insurance	-40.44
	Klamath Pacific – Spring Street Paving	-1,166.74
	Calculation error	-.03
	Recommended	**$49,367.82**

Criteria — The certified cost is limited to the actual cost of the claimed facility and it excludes any ineligible costs in ORS 468.155(3), OAR 340-016-0070(1) and -0070(3). The certified cost does not exceed the taxpayer's own cash investment in the facility or portion of the facility. The applicant must provide documents that substantiate the claimed facility cost.

The claimed cost may not include ineligible costs in ORS 468.155(3) and OAR 340-016-0070(3). The regulations exclude over 40 items from the definition of a Pollution Control Facility, including "Any distinct portion of a pollution control facility that makes an insignificant contribution to the principal or sole purpose of the facility," parking lots and road improvements and insurance.

9 ☑ Meets Criteria in ORS 468.170(1), ORS 468.190(1)

The percentage of the facility cost allocable to pollution control is 100 percent. The claimed facility cost exceeds $50,000; therefore, the applicant and the Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3) considering the five factors listed under the criteria section below and a ten-year useful life. The claimed facility does not produce a salable or usable commodity, a revenue stream, or cost savings. Expenditures exceed revenue; therefore, the resulting Facility Return on Investment (ROI) is less than the National ROI for 2006, the facility's construction completion year. The applicant did not investigate an alternative technology.

Criteria — The certified facility cost exceeds $50,000; therefore, the following factors help determine the percentage of the cost allocable to reducing pollution.

a. The extent to which the applicant uses the facility to recover and convert waste products into a salable or usable commodity,
b. The estimated annual percent return on the investment in the facility,
c. Any alternative methods, equipment and costs for achieving the same pollution control objective,
d. Any related savings or increase in costs that occur or may occur as a result of the installation of the facility, and
e. Any other relevant factors.

10 ☑ Meets Criteria in ORS 468.173(3)(h)

The maximum tax credit is 35 percent because the applicant submitted the application on November 15, 2006, and the facility is located in Klamath County, a severely distressed area.

Criteria — The maximum tax credit is 35 percent if the applicant submitted the application between January 1, 2002, and December 31, 2008, inclusively, and the facility is located within an area that has been designated a distressed area, as defined in ORS 285A.010, by the Oregon Economic and Community Development Department.

Reviewer: Maggie Vandehey, DEQ, Tax Credit Program Manager
Stephanie Holmes, DEQ, UST Program Coordinator

State of Oregon
Department of
Environmental
Quality

Pollution Control Facility Tax Credit

ORS 468.150 -- 468.190
OAR 340-016-0005 -- 340-016-0080

Application No. 7362
Oregon Steel Mills, Inc

1 DEQ's Recommendation for Certification: Approve Final Certification

Oregon Steel Mills Inc submitted an application for the certification of a water pollution control facility on November 29, 2006. The applicant filed the application within the one-year filing period as required in ORS 468.165(6).

Sections 3 through 7 of this report provide the Department of Environmental Quality (DEQ) analysis of the facility claimed on Application Number 7362. DEQ determined that:

- The facility meets the definition of a pollution control facility;
- The facility is necessary to satisfy the intents and purposes of DEQ regulations; and
- The facility is eligible for the tax credit.

DEQ's analysis of the facility cost, the percentage of the facility cost allocable to pollution control and the maximum allowable percentage are in sections 8, 9 and 10, respectively. The State of Oregon uses these three components to calculate the tax credit shown below.

Facility Cost		**$33,387**
Percentage Allocable	X	**100 %**
Maximum Allowable Percentage	X	**35 %**
Tax Credit		$11,685

2 Applicant Identification

Oregon Steel Mills, Inc
1000 SW Broadway, Suite 2200
Portland, OR 97205

Organized as: C Corp
Taxpayer ID: 94-0506370

3 Water Pollution Control Facility Identification

14400 N Rivergate Boulevard
Portland, OR 97203

The certificate will identify the facility as:

Containment pan under the railroad tracks at the locomotive diesel fueling area

4 Business and Facility Background

The Oregon Steel Mills, Inc plant on Rivergate Boulevard manufactures steel plates and coils from scrap steel. The company relocated its locomotive diesel fuel dispenser from the railroad track at the melt-shop charge area to the track at the strip mill entrance adjacent to the diesel aboveground storage tank. The applicant installed a 40-foot containment pan under the railroad track at the fueling area. The containment pan has a valve system for draining accumulated rainwater.

5 ☑ Meets Criteria in ORS 468.155 (1)(a)(B); OAR 340-016-0060 (2)(a)

The sole purpose of the containment pan is to prevent any spilled diesel fuel from contaminating waters of the state.

Criteria — The sole purpose, meaning the exclusive purpose, of the facility is to prevent, control or reduce a substantial quantity of water pollution.

> Pollution or water pollution means such alteration of the physical, chemical or biological properties of any waters of the state, including change in temperature, taste, color, turbidity, silt or odor of the waters, or such discharge of any liquid, gaseous, solid, radioactive or other substance into any waters of the state, which will or tends to, either by itself or in connection with any other substance, create a public nuisance or which will or tends to render such waters harmful, detrimental or injurious to public health, safety or welfare, or to domestic, commercial, industrial, agricultural, recreational or other legitimate beneficial uses or to livestock, wildlife, fish or other aquatic life or the habitat thereof. ORS 468B.005.

6 ☑ Meets Criteria in ORS 468.155 (1)(b)(B)

The containment pan eliminates water pollution by holding any spilled diesel fuel.

Criteria — The facility accomplishes the prevention, control or reduction by disposal or elimination of industrial wastewater and the use of a treatment works for industrial waste as defined in ORS 468B.0051.

> Industrial waste means any liquid, gaseous, radioactive or solid waste substance or a combination thereof resulting from any process of industry, manufacturing, trade or business, or from the development or recovery of any natural resources. ORS 468B.005
>
> Treatment works means any plant or other works used for the purpose of treating, stabilizing or holding wastes. ORS 468B.005

7 ☑ Meets Criteria in ORS.468.170 (4)(a)

The facility satisfies the intents and purposes of ORS chapter 468B (Water Pollution.)

Criteria — The facility is necessary to satisfy the intents and purposes of ORS 454.010 to 454.040, 454.205 to 454.255, 454.505 to 454.535, 454.605 to 454.755, ORS chapters 459, 459A, 466 and 467 and ORS chapters 468, 468A and 468B and rules thereunder.

8 ☑ Meets Criteria in ORS 468.155(3), ORS 468.170(1), OAR 340-016-0070

The eligible facility cost represents the applicant's own cash investment.

Paid invoices document the eligible facility cost. The State of Oregon has issued eight Pollution Control Facilities Tax Credit Certificates to the applicant at this location. The claimed facility is not a replacement of these previously certified facilities. The applicant included the cost of a pad under the new fuel pump but did not install groundwater protection under or around the dispensing pad. The applicant also included the cost of removing an old fuel line from service.

Section	Description	Facility Cost
Ineligible Costs	Claimed	$39,909
	Pad	-522
	Old fuel line removal	-6,000
	Recommended	$33,387

Criteria — The certified cost is limited to the actual cost of the claimed facility and it excludes any ineligible costs in ORS 468.155(3), OAR 340-016-0070(1) and -0070(3). Ineligible costs exclude "any distinct portion of a pollution control facility that makes an insignificant contribution to the principal or sole purpose of the facility" and the removal of equipment. The certified cost does not exceed the applicant's own cash investment in the facility or portion of the facility.

9 ☑ Meets Criteria in ORS 468.190 (3)

The applicant uses the containment pans 100 percent of the time to prevent water pollution.

The certified facility cost would be $33,387.

Criteria — If the cost of the facility (or facilities certified under one certificate) does not exceed $50,000, the portion of the actual costs properly allocable is the ratio of the time the applicant uses the facility to prevent, control or reduce solid waste pollution to the entire time the facility is used for any purpose.

10 ☑ Meets Criteria in ORS 468.173(3)(f)

The maximum tax credit is 35 percent because the applicant submitted the application on November 29, 2006, and the certified facility would be $33,387.

Criteria — The maximum tax credit is 35 percent if the applicant submitted the application between January 1, 2002, and December 31, 2008, inclusively, and the certified cost of the facility does not exceed $200,000.

Reviewer: Maggie Vandehey

State of Oregon
Department of
Environmental
Quality

Pollution Control Facility Tax Credit

ORS 468.150 -- 468.190
OAR 340-016-0005 -- 340-016-0080

Application No. 7393
JELD-WEN, Inc

1 DEQ's Recommendation for Certification: Approve Final Certification

JELD-WEN, Inc submitted an application for the certification of a water pollution control on January 23, 2007. The applicant filed the application within the required one-year filing period in ORS 468.165(6).

Sections 3 through 7 of this report provide the Department of Environmental Quality (DEQ) analysis of the facility claimed on Application Number 7393. DEQ determined that:

- The facility meets the definition of a pollution control facility;
- The facility is necessary to satisfy the intents and purposes of DEQ regulations; and
- The facility is eligible for the tax credit.

DEQ's analysis of the facility cost, percentage of the facility cost allocable to pollution control and maximum allowable percentage are in sections 8, 9 and 10, respectively. The State of Oregon uses these three components to calculate the tax credit shown below.

Facility Cost		**$1,098,125**
Percentage Allocable	X	**100 %**
Maximum Allowable Percentage	X	**35 %**
Tax Credit		$408,408

2 Applicant Identification

JELD-WEN, Inc
407 Harbor Isles Boulevard
Klamath Falls, OR 97601

Organized as: C Corp
Taxpayer ID: 93-0496342

3 Water Pollution Control Facility Identification

4013 Lakeport Boulevard
Klamath Falls, OR 97601

The certificate will identify the facility as:

A 400' by 400' acre log deck and an 85,000 gallon wastewater detention tank

4 Business and Facility Background

JELD-WEN, Inc dries and surfaces lumber for use to make cutstock for various window and doors components at its Millwork Manufacturing – Thomas facility. In the first steps of the process, trucks bring raw logs to the yard where the company sizes, grades, stacks and stores them for the milling process. The logs require irrigation to prevent cracking and bluing during storage.

The applicant claims an impervious asphalt installation on a 400' by 400' area of the log deck and a 85,000-gallon concrete detention tank. The engineered deck is sloped to prevent discharge to Upper Klamath Lake. Costs include excavation and rock fill. Biomass 1 of White City uses the excavated material for energy recovery. Waters from any storm event or from log irrigation activities discharge to the detention tank for filtration, reuse or elimination through evaporation.

5 ☑ Meets Criteria in ORS 468.155 (1)(a)(A); OAR 340-016-0060 (2)(a)

The primary and most important purpose of the log deck and containment area is to prevent water pollution in compliance with Schedule A of the applicant's National Pollutant Discharge Elimination System (NPDES) General Permit 400-J (File Number 43230) and a Notice of Violation dated December 27, 2005.

Industrial wastewater from the log deck includes phosphorus, total suspended solids, tannin and lignin, low pH and settleable solids. Prior to installing the log deck and detention tank, irrigation water combined with seasonal rains and snowmelt caused the older log deck pond to breach its containment dikes; thereby, contaminating the receiving waters of the Upper Klamath Lake.

Criteria

The principal purpose of the facility is to comply with a DEQ or a federal Environmental Protection Agency (EPA) requirement to prevent, reduce or control water pollution. The principal purpose is the most important or primary purpose of the facility. The facility has only one primary purpose.

> Pollution or water pollution means such alteration of the physical, chemical or biological properties of any waters of the state, including change in temperature, taste, color, turbidity, silt or odor of the waters, or such discharge of any liquid, gaseous, solid, radioactive or other substance into any waters of the state, which will or tends to, either by itself or in connection with any other substance, create a public nuisance or which will or tends to render such waters harmful, detrimental or injurious to public health, safety or welfare, or to domestic, commercial, industrial, agricultural, recreational or other legitimate beneficial uses or to livestock, wildlife, fish or other aquatic life or the habitat thereof. ORS 468B.005.

6 ☑ Meets Criteria in ORS 468.155 (1)(b)(B)

The sloped log deck and concrete detention tank meet the definition of a treatment works for controlling industrial waste.

Criteria — The facility accomplishes the prevention, control or reduction by disposal or elimination of industrial wastewater and the use of a treatment works for industrial waste as defined in ORS 468B.0051.

Industrial waste means any liquid, gaseous, radioactive or solid waste substance or a combination thereof resulting from any process of industry, manufacturing, trade or business, or from the development or recovery of any natural resources. ORS 468B.005

Treatment works means any plant or other works used for the purpose of treating, stabilizing or holding wastes. ORS 468B.005

7 ☑ Meets Criteria in ORS.468.170 (4)(a)

The facility satisfies the intents and purposes of ORS chapter 468B (Water Pollution.)

Criteria — The facility is necessary to satisfy the intents and purposes of ORS 454.010 to 454.040, 454.205 to 454.255, 454.505 to 454.535, 454.605 to 454.755, ORS chapters 459, 459A, 466 and 467 and ORS chapters 468, 468A and 468B and rules thereunder.

8 ☑ Meets Criteria in ORS 468.155(3), ORS 468.170(1), OAR 340-016-0070

The eligible facility cost represents the applicant's own cash investment.
Paid invoices document the eligible facility cost. The State of Oregon has issued ten Pollution Control Facilities Tax Credit Certificates to the applicant, six to this plant but none for the older retention pond. The claimed facility is not a replacement of any previously certified facility. The applicant included the cost to pave 9,472 square feet of roadway, which is 5.9 percent of the total paving cost. The Department subtracted the ineligible cost from the claimed facility cost below.

Section	Description		Facility Cost
		Claimed	$1,166,881
8	Ineligible Cost:	Road Improvement	$ 68,756
		Recommended	$1,098,125

Criteria — The certified cost is limited to the actual cost of the claimed facility and it excludes any ineligible costs in ORS 468.155(3), OAR 340-016-0070(1) and -0070(3). The certified cost does not exceed the applicant's own cash investment in the facility or portion of the facility.

9 ☑ Meets Criteria in ORS 468.170(1), ORS 468.190(1)

The percentage of the eligible facility cost allocable to pollution control is 100 percent. The certified facility cost exceeds $50,000; therefore, the applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3) considering the five factors listed under Criteria below and a 30-year useful life. The claimed facility does not produce a salable or usable commodity, a revenue stream or cost savings. Expenditures exceed revenue; therefore, the resulting Facility Return on Investment (ROI) is less than the National ROI for 2006, the facility's construction completion year. The applicant did not investigate an alternative technology.

Criteria — The certified facility cost exceeds $50,000; therefore, the following factors help determine the percentage of the cost allocable to reducing water pollution.

a. The extent to which the applicant uses the facility to recover and convert waste products into a salable or usable commodity;
b. The estimated annual percent return on the investment in the facility;
c. Any alternative methods, equipment and costs for achieving the same pollution control objective;
d. Any related savings or increase in costs that occur or may occur as a result of the installation of the facility; and
e. Any other relevant factors.

10 ☑ Meets Criteria in ORS 468.173(3)(h)

The maximum tax credit is 35 percent because the applicant submitted the application on January 1, 2007, and the facility is located in Klamath County, which is a severely distressed county.

Criteria — The maximum tax credit is 35 percent if the applicant submitted the application between January 1, 2002, and December 31, 2008, inclusively; and the facility is located within a distressed area as designated by the Economic and Community Development Department.

Reviewer: Maggie Vandehey, DEQ, Tax Credit Program Manager
Walt West, DEQ ER, Senior Environmental Engineer

State of Oregon
Department of
Environmental
Quality

Pollution Control Facility Tax Credit

ORS 468.150 -- 468.190
OAR 340-016-0005 -- 340-016-0080

Application No. 7404
Conrad Wood Preserving Co

1 DEQ's Recommendation for Certification: Approve Final Certification

Conrad Wood Preserving Co. submitted an application for the certification of a water pollution control facility on February 13, 2007. The applicant filed the application within the one-year filing period required in ORS 468.165(6).

Sections 3 through 7 of this report provide the Department of Environmental Quality (DEQ) analysis of the facility claimed on application number 7404. DEQ determined that the facility:

- Meets the definition of a pollution control facility;
- Is necessary to satisfy the intents and purposes of DEQ regulations; and.
- Is eligible for the tax credit.

DEQ's analysis of the facility cost, percentage of the facility cost allocable to pollution control and maximum allowable percentage are in sections 8, 9 and 10, respectively. The State of Oregon uses these three components to calculate the tax credit shown below.

Facility Cost		**$240,647**
Percentage Allocable	X	**100%**
Maximum Allowable Percentage	X	**35%**
Tax Credit		$84,226

2 Applicant Identification

Conrad Wood Preserving Co., Inc.
68765 Wildwood Road
North Bend, OR 97459

Organized as: S Corp
Taxpayer ID: 93-0747636

3 Water Pollution Control Facility Identification

Conrad Forest Products
29175 Dike Road
Rainier, OR 97048

The EQC's certification will identify the facility as:

Two - 50' x 75' steel storage sheds identified as DS-2 and DS-3
One - 120' x 42' steel storage sheds identified as DS-4

4 Business and Facility Background

Conrad Wood Preserving treats lumber and plywood to protect it from insects, decay and fire. The process involves loading material onto trams or carts to transport it to one of three pressure vessels of aqueous pesticide solutions containing chromium, arsenic, copper and zinc. After treating the material, the applicant moves the material to a drip pad. Once dry, the applicant moves the material to a packaging area where the applicant wraps the treated material and moves it to the yard or to a covered storage area.

The applicant claims three dry-storage sheds designed by Varco-Pruden. The all-steel sheds have gravel floors and the company installed the concrete footings according to engineered drawings. The new structures expand the dry storage space from 10,584 to 23,124 square feet.

5 ☑ Meets Criteria in ORS 468.155 (1)(a)(A); OAR 340-016-0060 (2)(a)

The primary and most important purpose of the sheds is to prevent leaching of toxic metals into storm water discharged to the Columbia River through the site's storm water outfall (001, RM66.) The sheds cover approxiamtely 60 percent of the treated material needed to comply with Schedule C of the company's NPDES permit number 101910. The schedule requires the company to complete construction of wood storage areas and to comply with arsenic benchmarks by December 31, 2007.

Criteria

The principal purpose of the facility is to comply with a DEQ, the federal Environmental Protection Agency (EPA) or a regional requirement to prevent, reduce or control water pollution. The principal purpose is the most important or primary purpose of the facility. The facility has only one primary purpose.

> Pollution or water pollution means such alteration of the physical, chemical or biological properties of any waters of the state, including change in temperature, taste, color, turbidity, silt or odor of the waters, or such discharge of any liquid, gaseous, solid, radioactive or other substance into any waters of the state, which will or tends to, either by itself or in connection with any other substance, create a public nuisance or which will or tends to render such waters harmful, detrimental or injurious to public health, safety or welfare, or to domestic, commercial, industrial, agricultural, recreational or other legitimate beneficial uses or to livestock, wildlife, fish or other aquatic life or the habitat thereof. ORS 468B.005.

6 ☑ Meets Criteria in ORS 468.155 (1)(b)(B)

The sheds prevent storm water from coming in contact with treated wood thus eliminating the potential for contaminated runoff (industrial waste) to discharge to the river.

Criteria — The facility accomplishes the prevention, control or reduction by disposal or elimination of industrial wastewater and the use of a treatment works for industrial waste as defined in ORS 468B.0051.

> Industrial waste means any liquid, gaseous, radioactive or solid waste substance or a combination thereof resulting from any process of industry, manufacturing, trade or business, or from the development or recovery of any natural resources. ORS 468B.005
>
> Treatment works means any plant or other works used for the purpose of treating, stabilizing or holding wastes. ORS 468B.005

7 ☑ Meets Criteria in ORS.468.170 (4)(a)

The facility satisfies the intents and purposes of ORS chapter 468B (Water Pollution)

Criteria — The facility is necessary to satisfy the intents and purposes of ORS 454.010 to 454.040, 454.205 to 454.255, 454.505 to 454.535, 454.605 to 454.755, ORS chapters 459, 459A, 466 and 467 and ORS chapters 468, 468A and 468B and rules thereunder.

8 ☑ Meets Criteria in ORS 468.155(3), ORS 468.170(1), OAR 340-016-0070

The eligible facility cost represents the applicant's own cash investment.
Paid invoices document the eligible facility cost. The State of Oregon has issued three Pollution Control Facilities Tax Credit Certificates to the applicant at their location in North Bend but none to the Rainier site. The claimed facility is not a replacement of any previously certified facility. The applicant included minor ineligible costs in the application.

Section	Description	Facility Cost
	Claimed	$241,355
Ineligible Costs	Fire extinguishers and signs	-219
	Roadway gravel	-489
	Recommended	$240,647

Criteria — The certified cost is limited to the actual cost of the claimed facility and it excludes any ineligible costs in ORS 468.155(3), OAR 340-016-0070(1) and -0070(3). The certified cost does not exceed the taxpayer's own cash investment in the facility or portion of the facility.

Ineligible Costs

The applicant must provide documents that substantiate the claimed facility cost. The claimed cost may not include…ineligible costs as set forth in ORS 468.155(3) and OAR 340-016-0070(3).

The regulations exclude over 40 items from the definition of a Pollution Control Facility, including "Any distinct portion of a pollution control facility that makes an insignificant contribution to the principal or sole purpose of the facility." ORS 468.155(3). For tax credit purpose, the EQC determined that fire suppression equipment and supplies do not contribute to the pollution control purpose of a facility. Additionally, the definition specifically excludes parking lots and road improvements;

9 ☑ Meets Criteria in ORS 468.170(1), ORS 468.190(1)

The percentage of the facility cost allocable to pollution control is 100 percent. The certified facility cost exceeds $50,000. The Department determined that 100 percent of the facility cost is allocable to pollution control.

The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3) considering the five factors and a 20-year useful life. The claimed facility does not produce a salable or usable commodity, a revenue stream, or cost savings. Expenditures exceed revenue; therefore, the resulting Facility ROI (return on investment) is less than the National ROI for 2006, the facility's construction completion year. The applicant did not investigate an alternative technology.

Criteria

The certified facility cost exceeds $50,000; therefore, the following factors help determine the percentage of the cost allocable to reducing solid waste.

a. The extent to which the applicant uses the facility to recover and convert waste products into a salable or usable commodity;

b. The estimated annual ROI in the facility;

c. Any alternative methods, equipment and costs for achieving the same pollution control objective;

d. Any related savings or increase in costs that occur or may occur as a result of the installation of the facility; and

e. Any other relevant factors.

10 ☑ Meets Criteria in ORS 468.173(3)(f)

The maximum tax credit is 35 percent because the applicant submitted the application on February 13, 2007, and the facility is located in Columbia County, which is an economically distressed area.

Criteria — The maximum tax credit is 35 percent if the applicant submitted the application between January 1, 2002 and December 31, 2008, inclusively, and the facility is, at the time of certification, located...within an area that has been designated a distressed area, as defined in ORS 285A.010, by the Economic and Community Development Department.

Reviewers: Maggie Vandehey, Tax Credit Program
Elliot Zais, PhD, NWR

Attachment C
Certificate Administration

Three taxpayers notified the Department of status changes involving their Pollution Control Tax Credit Certificates. The Department recommends that the Commission take the following actions.

Action	Certificate	Background
Revoke	4239	Mars Enterprises, Inc. 4196 81st Avenue Salem, OR 97305 On July 1, 2006, the farm converted the use of the building, straw loader and flatbed trailer from an alternative method for field sanitation to activities related to their fruit processing business. The EQC certified the facility on November 11, 1999.
	10867	T & P Farms, LLC PO Box 9068 Brooks, OR 97305 A fire destroyed the straw storage building certified on December 10, 2004. The farm is currently rebuilding it and will apply for a tax credit on the replacement value of the building.
Transfer		ORS 468.155(3)(e)(B) provides that the remainder of the tax credit certified to the original facility is available to a new facility if the certificate holder replaces all or part of a certified facility before the end of the facility's useful life.
	10219	From: 4-M Ranch, Inc. To: Tim and Shannon Rust 77252 Mader-Rust Lane Echo, OR 97826 On December 29, 2006, Thomas G. Martin of 4-M Ranch, LLC sold his no-till drill and requested a certificate transfer to the new owners on January 10, 2007.

Certificate Administration References

315.304 Pollution control facilities.

(8) Upon any sale, exchange or other disposition of a facility, notice thereof shall be given to the Environmental Quality Commission who shall revoke the certification covering such facility as of the date of such disposition. Notwithstanding ORS 468.170 (4)(c), the transferee may apply for a new certificate under ORS 468.170, but the tax credit available to such transferee shall be limited to the amount of credit not claimed by the transferor. The sale, exchange or other disposition of shares in an S corporation as defined in section 1361 of the Internal Revenue Code or of a partner's interest in a partnership shall not be deemed a sale, exchange or other disposition of a facility for purposes of this subsection.

468.185 Procedure to revoke certification; reinstatement.

(1) Pursuant to the procedures for a contested case under ORS chapter 183, the Environmental Quality Commission may order the revocation of the certification issued under ORS 468.170 of any pollution control or solid waste, hazardous wastes or used oil facility, if it finds that:

(a) The certification was obtained by fraud or misrepresentation; or

(b) The holder of the certificate has failed substantially to operate the facility for the purpose of, and to the extent necessary for, preventing, controlling or reducing air, water or noise pollution or solid waste, hazardous wastes or used oil as specified in such certificate.

(2) As soon as the order of revocation under this section has become final, the commission shall notify the Department of Revenue and the county assessor of the county in which the facility is located of such order.

(3) If the certification of a pollution control or solid waste, hazardous wastes or used oil facility is ordered revoked pursuant to subsection (1)(a) of this section, all prior tax relief provided to the holder of such certificate by virtue of such certificate shall be forfeited and the Department of Revenue or the proper county officers shall proceed to collect those taxes not paid by the certificate holder as a result of the tax relief provided to the holder under any provision of ORS 307.405 and 315.304.

(4) Except as provided in subsection (5) of this section, if the certification of a pollution control or solid waste, hazardous wastes or used oil facility is ordered revoked pursuant to subsection (1)(b) of this section, the certificate holder shall be denied any further relief provided under ORS 307.405 or 315.304 in connection with such facility, as the case may be, from and after the date that the order of revocation becomes final.

(5) The commission may reinstate a tax credit certification revoked under subsection (1)(b) of this section if the commission finds the facility has been brought into compliance. If the commission reinstates certification under this subsection, the commission shall notify the Department of Revenue or the county assessor of the county in which the facility is located that the tax credit certification is reinstated for the remaining period of the tax credit, less the period of revocation as determined by the commission. [Formerly 449.645; 1975 c.496 §7; 1977 c.795 §7; 1979 c.802 §7; 1987 c.596 §6]

Attachment D

Tax Expenditure Liability Report

When the Environmental Quality Commission issues a Pollution Control Facilities Tax Credit (PCTC) Certificates, the State of Oregon incurs a tax expenditure liability.

The Tax Expenditure Liability Report shows the maximum potential fiscal impact of the EQC's certification of:

- Facilities presented in this staff report,
- Facilities certified in the 2005-07 biennium and
- Wood chipper certifications sub-delegated to the Department.

The amount listed under each year is the maximum potential credit that taxpayers with certificates may use to reduce their Oregon taxes in any one year. This annual limitation is equal to the tax credit divided by the remaining useful life of the facility but no more than ten years. The remaining useful life is the useful life of the facility less the expired period between the date the applicant placed the facility into operation and the Commission approved certification.

Attachment D

Tax Expenditure Liability Report

App #	Tax Credit	Placed in Operation	UL	Remaining UL	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
7328	$220,186	2006	15	10		$22,019	$22,019	$22,019	$22,019	$22,019	$22,019	$22,019	$22,019	$22,019	$22,015
7343	$1,122	2006	7	6		187	187	187	187	187	187	0	0	0	0
7344	$69,340	2005	7	5		13,868	13,868	13,868	13,868	13,868	0	0	0	0	0
7347	$902	2006	3	2		451	451	0	0	0	0	0	0	0	0
7348	$10,217	2006	7	6		1,703	1,703	1,703	1,703	1,703	1,702	0	0	0	0
7350	$39,144	2006	7	6		6,524	6,524	6,524	6,524	6,524	6,524	0	0	0	0
7351	$17,279	2006	10	9		1,920	1,920	1,920	1,920	1,920	1,920	1,920	1,920	1,919	0
7362	$11,685	2006	10	9		1,298	1,298	1,298	1,298	1,298	1,298	1,298	1,298	1,301	0
7363	$439,325	2006	5	4		109,831	109,831	109,831	109,832	0	0	0	0	0	0
7364	$14,900	2006	10	9		1,656	1,656	1,656	1,656	1,656	1,656	1,656	1,656	1,652	0
7365	$6,216	2006	7	6		1,036	1,036	1,036	1,036	1,036	1,036	0	0	0	0
7367	$47,132	2005	5	3		15,711	15,711	15,710	0	0	0	0	0	0	0
7385	$11,920	2007	10	10		1,192	1,192	1,192	1,192	1,192	1,192	1,192	1,192	1,192	1,192
7386	$22,280	2006	20	10		2,228	2,228	2,228	2,228	2,228	2,228	2,228	2,228	2,228	2,228
7387	$27,466	2006	10	9		3,052	3,052	3,052	3,052	3,052	3,052	3,052	3,052	3,050	0
7388	$429,144	2006	10	9		47,683	47,683	47,683	47,683	47,683	47,683	47,683	47,683	47,680	0
7390	$854	2006	1	1		854	0	0	0	0	0	0	0	0	0
7391	$44,018	2005	5	3		14,673	14,673	14,672	0	0	0	0	0	0	0
7393	$384,344	2006	30	10		38,434	38,434	38,434	38,434	38,434	38,434	38,434	38,434	38,434	38,438
7396	$22,787	2006	7	6		3,798	3,798	3,798	3,798	3,798	3,797	0	0	0	0
7397	$15,085	2006	7	6		2,514	2,514	2,514	2,514	2,514	2,515	0	0	0	0
7404	$84,226	2006	10	9		9,358	9,358	9,358	9,358	9,358	9,358	9,358	9,358	9,362	0
7418	$5,187	2006	7	6		864	864	864	864	864	867	0	0	0	0
7435	$47,324	2006	7	6		7,887	7,887	7,887	7,887	7,887	7,889	0	0	0	0
7442	$68,375	2006	5	4		17,094	17,094	17,094	17,093	0	0	0	0	0	0
7446	$2,535	2006	5	4		634	634	634	633	0	0	0	0	0	0
7447	$3,498	2006	7	6		583	583	583	583	583	583	0	0	0	0
7452	$8,448	2006	8	7		1,207	1,207	1,207	1,207	1,207	1,207	1,206	0	0	0
7453	$10,266	2006	8	7		1,467	1,467	1,467	1,467	1,467	1,467	1,464	0	0	0
June '07	2,065,205				0	329,726	328,872	328,419	298,036	170,478	156,614	131,510	128,840	128,837	63,873
Dec '06	$4,130,410				0	$659,452	$657,744	$656,838	$596,072	$340,956	$313,228	$263,020	$257,680	$257,674	$127,746
June '06	$1,548,530				0	$237,200	$236,152	$236,152	$236,154	$193,818	$177,291	$80,973	$79,755	$63,418	$7,618
Dec '05	3,017,638				323,870	339,554	339,555	339,556	337,328	337,335	323,117	315,067	315,081	229,523	0
Oct '05	312,916				66,715	66,450	66,450	66,449	27,060	7,671	3,880	2,747	2,747	2,747	0
WC	372,200				65,787	154,315	66,142	47,170	24,389	12,781	1,616	0	0	0	0
Total	**$9,381,694**				**$456,372**	**$1,786,698**	**$1,694,915**	**$1,674,584**	**$1,519,039**	**$1,063,039**	**$975,746**	**$793,317**	**$784,103**	**$682,199**	**$199,237**

WC = wood chippers biennium to date

Attachment E

Certified Wood Chipper Report
November 1, 2006 – April 30, 2007

On October 4, 2002, the Commission adopted OAR 340-016-0009 to delegate its wood chipper certification authority to the Department. The Commission requested that the Department periodically provide a listing of the wood chipper certifications.

The Department presented the last Certified Wood Chipper Report to the EQC on December 14, 2006. The Department certified **28** wood chippers from the date of the last report to April 30, 2007.

Reference

OAR 340-016-0009[1]

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) Notify the applicant in writing; and
   b) Include a concise statement of the reasons for the proposed certification of a lesser amount or percentage; and

[1] Certification of wood chippers

c) Include a statement advising the applicant of their rights under section (4).

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).

Adopted 10-4-02; effective 11-01-02

Attachment E

Certified Wood Chipper Report

May 5, 2006 - October 31, 2006

Action Date	App #	Applicant	Claimed	Certified	Difference	% Allocable	Maximum Percent	Tax Tax Credit
30-Dec-06	7373	George M Wagenblast	$ 420	$ 420	$ -	100%	35%	$ 147
30-Dec-06	7341	Sperry Tree Care Co	27,980	27,980	0	100%	35%	9,793
30-Dec-06	7342	Sperry Tree Care Co	27,980	27,980	0	100%	35%	9,793
30-Dec-06	7353	Paul E Davis	1,799	1,799	0	100%	35%	630
30-Dec-06	7368	Harvey Bagley	1,990	1,990	0	100%	35%	696
30-Dec-06	7380	Charles Guy	3,799	3,799	0	100%	35%	1,330
30-Dec-06	7374	Clarence V Wangle	37,500	37,500	0	100%	35%	13,125
30-Dec-06	7375	Sharon L Perala	650	650	0	100%	35%	227
30-Dec-06	7376	Pamela Gail Kelley	1,599	1,599	0	100%	35%	560
30-Dec-06	7378	John Lee Schweizer	6,149	6,149	0	100%	35%	2,152
30-Dec-06	7377	Delbert Knapp	1,680	1,680	0	100%	35%	588
30-Dec-06	7356	George Uriona	8,216	8,216	0	100%	35%	2,876
30-Dec-06	7274	Scharter Harvesting Inc	1,970	1,970	0	100%	35%	690
21-Feb-07	7384	Northwoods Nursery Inc	8,600	8,600	0	100%	35%	3,010
21-Feb-07	7392	Robert W Alexander	1,730	1,730	0	100%	35%	606
21-Feb-07	7400	Oregon Hazelnut Orchards Inc	18,000	18,000	0	100%	35%	6,300
21-Feb-07	7395	Paul Carter Stein	850	850	0	100%	35%	298
21-Feb-07	7383	Judith L Ekstrom	2,800	2,800	0	100%	35%	980
21-Feb-07	7382	Edward D Houck	1,700	1,700	0	100%	35%	595
21-Feb-07	7381	Stephen E Hudson	600	600	0	100%	35%	210
21-Feb-07	7409	Investment Inc	1,799	1,799	0	100%	35%	630
21-Feb-07	7408	Diane & William Voss	2,699	2,699	0	100%	35%	945
21-Feb-07	7407	Thomas P E Herrmann	2,999	2,999	0	100%	35%	1,050
21-Feb-07	7406	David Reyes	3,679	3,679	0	100%	35%	1,288
21-Feb-07	7405	Judson M Parsons	3,800	3,800	0	100%	35%	1,330
21-Feb-07	7402	Paul S Clement	2,600	2,600	0	100%	35%	910
21-Feb-07	7401	Melvin Sump	1,950	1,950	0	100%	35%	683
21-Feb-07	7398	Ronald Weaver	1,126	1,126	0	100%	35%	394
28 Apps		**Sum**	**$176,664**	**$176,663**				**$61,832**

State of Oregon

Department of Environmental Quality | Memorandum

To: Environmental Quality Commission **Date:** June 22, 2007

From: Stephanie Hallock, Director

Subject: Director's Dialogue

Deschutes County Update

Following the Bend EQC meeting the South Deschutes County citizens organized to form a Citizen's Action Group. Taken from their flyer, "the Deschutes County Citizen's Action Group has been formed to integrate into all aspects of community development and community decision-making. We are committed to addressing issues that impact quality of life, protecting citizens' rights and conserving our rural identity and natural resources. The Deschutes County Citizen's Action Group is also committed to any and all issues affecting our community and citizenry".

The Deschutes County Citizen's Action Group held a meeting May 15 and invited DEQ, Department of Land Conservation and Development (DLCD) and Deschutes County Commissioners (only Tammy Baney was able to attend). There were approximately 300-350 people in attendance. A summary of the meeting is attached.

The Deschutes County Citizen's Action Group has requested formal recognition by state agencies. DEQ staff have also had two meetings with Deschutes County and DLCD staff regarding expansion of existing sewers in the area, and the use of cluster treatment systems for some developments.

I have provided several pieces of background information (attached) regarding the South Deschutes County ordinance and groundwater concerns. If you have additional questions, Eastern Regional Administrator Joni Hammond remains the primary contact on this issue.

Fish Consumption Rate Project

DEQ, EPA, and the Confederated Tribes of the Umatilla Indian Reservation held the second public workshop of the Oregon Fish Consumption Rate Project on May 16th in Lincoln City. Water Quality Administrator Lauri Aunan and I both attended the workshop along with over 50 members of the public. Topics of discussion included the policy decisions the EQC should consider in the project, EPA's preference hierarchy for establishing Human Health Water Quality Criteria, fish consumption rate information from other states, and the data from local, regional, and national fish consumption surveys.

There was significant discussion around the policy issues the EQC should consider. The Department will provide an update to the Commission for discussion at your August meeting. We expect to provide the opportunity for public comment to the EQC at the August meeting. The next public workshop will be held in Portland on July 17th and will include a discussion about risks to human health under our current water quality criteria.

There was some comment that attendees would be appreciative of Environmental Quality Commissioners' attendance at future workshops.

We are working on responding to the information gathered in the most recent workshop, and the Human Health Focus Group has been meeting regularly in advance of the July Workshop to be sure we have the best available information to share.

Building Stronger Relationships with Oregon Tribes

Last December, I reported to you on our efforts to build stronger relationships with Oregon's nine federally-recognized tribes. As you know, DEQ adopted a Statement of Intent (attached) in 2002 outlining our commitment to work with tribes, and we're taking a number of steps to advance those efforts.

- Meetings with tribal leaders
  In November 2006, I sent letters to leaders of the federally-recognized tribes offering to meet with them in their locations to discuss opportunities for building stronger relationships. In January, Kerri Nelson (Western Region Administrator), Dick Pedersen (then Northwest Region Administrator), Mikell O'Mealy (DEQ's Tribal Liaison) and I met with leaders of the Confederated Tribes of Siletz for a very productive discussion about common interests and partnership opportunities. Now that session is concluding, I hope to hold meetings with some of the other tribes soon. Earlier this week, I sent new letters to tribal leaders (some of which have changed in recent tribal elections) restating my interest in meeting with them, and we will let you know when the meetings are scheduled so that you may join us if you are available.
- Soliciting ideas from tribal managers
  This spring, DEQ surveyed tribal Natural Resource and Cultural Resource Managers to seek specific suggestions on ways we might work more closely together, especially around issues that are most important to tribes. The survey was conducted by Ganesa Curley, an intern who recently completed her graduate work at Harvard's Kennedy School of Government and used her project with DEQ to satisfy her degree requirements. Ganesa's report will soon be finalized and distributed to DEQ managers and staff, providing survey findings and recommendations for building relationships with tribes.
- Providing quick-reference information to DEQ employees
  In July, a new guide will be available on DEQ's web site to provide employees with quick-reference information on the history, culture, governance and activities of each federally-recognized tribe. Producing the guide on DEQ's web site, rather than distributing paper copies, is in line with our efforts to reduce paper use and be more sustainable. Having the guide on-line will also make it easier to update as tribal contacts change.

- Providing more training on tribal relations
  DEQ's Executive Management Team has agreed on the need to provide more training for DEQ staff, especially new employees, on tribal relations and tribal culture (we used to offer more training than we do now). This fall, DEQ will send up to 25 staff to a four-day training in The Dalles focused on protecting tribal cultural resources, and we're exploring other opportunities for small group training with tribal managers around the state over the coming year.

In general, we are hearing from tribal leaders and managers that they are very interested in working with DEQ on increasing the Fish Consumption Rate, cleaning up Portland Harbor, addressing water quality issues, and protecting tribal cultural resources during ground-disturbing activity (often associated with clean-up projects or spill response). We are working with tribes on all of these issues now, and I will continue to keep you informed as we move forward.

Status of Liquefied Natural Gas Projects in Oregon

As you may have seen in the news, five Liquefied Natural Gas (LNG) companies have proposed siting LNG facilities in Oregon over the last couple years. Of these five, only three are actively moving forward in the permitting process: the Bradwood Landing LNG site on the Columbia River between Astoria and Clatskanie, the Skipanon LNG site on the Columbia River in Warrenton, and the Jordan Cove LNG site on the North Spit of Coos Bay. Industry analysts speculate that the West Coast may only be able to support one LNG facility (due mostly to limited supplies from other countries), and this has spurred somewhat of a "race" by companies proposing facilities in Oregon, California and potentially Mexico. The winner will likely be the facility that is able to move through federal, state and local permitting challenges before the others.

Under the Energy Policy Act of 2005, the Federal Energy Regulatory Commission (FERC) has authority to regulate and site LNG facilities, but DEQ and other state agencies must issue still state permits and approvals before LNG facilities can operate in Oregon. FERC plans to release the draft Environmental Impact Statement (EIS) in August, which will be followed by a FERC public meeting in the community. We are working closely with FERC and other agencies to evaluate proposals from LNG companies, and in January, we held informational meetings in Knappa and Clatskanie (which Chair Hampton attended) to hear community concerns about LNG and other proposed industrial development. In general, these communities and many people in the Coos Bay area are concerned about potential environmental impacts and safety issues associated with LNG plants. Some local government leaders are advocating for LNG projects because of their desire for new jobs.

Attached is a summary of the questions we heard from community members at our January informational meetings, as well as DEQ's answers (this document was sent to everyone who attended the meetings). As we receive complete permit applications from the LNG companies, we will again hold community meetings to share specific information on what has been proposed. We will let you know when those meetings are scheduled so that you may attend if you are available.

Legislative and Budget Update

I have attached the latest legislative and budget updates. Greg Aldrich and Andree Pollock will review these with you.

Attachments for Deschutes County Update

State and Local Government Onsite Program Authority

A county in Oregon may regulate individual on site sewage disposal systems under one or more provisions of state or local law. Specifically, it may act as DEQ's agent in applying the minimum requirements established by the Commission under Oregon's on-site statutes. Under the Commission's rules, a County may also impose more stringent requirements as needed on a case-by-case basis to protect public health or the environment. It may also impose requirements for on-site systems under its own police power authority so long as the requirements are not less stringent or otherwise incompatible with the state-wide program administered by DEQ.

- Cities and counties have constitutional and statutory authority to regulate matters of public health and welfare so long as the local regulations do not impermissibly conflict with state statutes. This concept is often referred to as home rule. The extent of local government police power authority generally extends to enacting ordinances relating to land use, water quality, and the control of sewage. To the extent that a local government's regulation of subsurface sewage disposal is not less stringent and does not significantly interfere with DEQ's regulatory program it is likely that a court would uphold the local government's ordinances.

- In 1973 the Legislature enacted the first state-wide statutes regulating subsurface sewage disposal systems. [ORS 454.605 to 454.755] These statutes give the EQC the right to establish minimum standards for such systems and required a permit for the construction of such systems.

- The statutes authorize the EQC to adopt more stringent on-site requirements (or to prohibit on-site systems entirely) in those areas where the Commission finds that additional controls are needed. [ORS 454.685] The Commission has rarely used this authority, however.

- The statutes also authorize the DEQ to enter into contracts with local governments to perform specified statutory duties, including issuing construction permits, inspecting installations, issuing certificates of satisfactory completion, issuing notices of violation, and processing variances. [ORS 454.725]

- In 1981, the statutes were amended to give County agents the additional authority to directly enforce the on-site statutes and the EQC's implementing rules. [ORS 454.640]

In addition to enforcing the general requirements in the rules, the EQC expressly directed local government agents to withhold authorization for installation or use of on-site systems if the local agent determines that the minimum state standards will not protect the public health or water quality in a particular situation. [OAR

340-071-0130 (1)] In these circumstances, the local agent also may require increased setbacks, increased drainfield sizing, or use of an alternative system, if needed to prevent pollution of public waters or creation of a health hazard. Furthermore and most importantly, the agent must provide the applicant with a written statement of the specific reasons why more stringent requirements are necessary.

Attachment to Director's Dialogue
June 22, 2007 EQC Meeting

Brief History of South Deschutes Groundwater Issues

Groundwater quality has been a concern for years in the La Pine Sub-basin of South Deschutes County. Most onsite systems in the region are conventional septic tank and drainfield systems located in highly porous and permeable (rapidly draining) soils with no intervening layer protecting the underlying shallow aquifer.

- Studies and sampling as far back as 1982 have shown isolated problem areas where elevated nitrate levels greater than the EPA's maximum contaminant level (MCL) for drinking water of 10 mg/l have been found in groundwater. Due to high levels of nitrate in the groundwater beneath the La Pine business core area, a step-sewer system was installed in 1982. A step system incorporates individual residential septic tanks where the effluent is pumped to a treatment facility and solids are retained in the tanks.

- In 1998 as part of a state funded Regional Problem Solving project, DEQ and Deschutes County formed a work group to begin looking into the area-wide groundwater concerns. The work group consisted of local community stakeholders, local WRD and USFS technical groundwater resource staff, DEQ staff, and County staff. In April 1999 the group developed a position document of how to best address the groundwater concerns and sent it to the DEQ Director. At the same time it was agreed by all that a local citizen advisory committee would be involved in the development of any DEQ geographic or local rule.

- In February 1999, DEQ and County staff began preparation on the work plan for the EPA La Pine National Decentralized Wastewater Treatment and Disposal Project. The primary objective of the project was to protect water quality of the La Pine sub-basin ground water aquifers. The intent was to accomplish the objective while:
    1. Allowing development to occur through a holistic approach of innovative denitrification technologies, in combination with understanding groundwater flow and nitrate fate and transport assessment (nitrate dilution and migration);
    2. Determine the appropriate development density through lot size optimization modeling based on the results of the denitrification systems study and assessment of the fate and transport of nitrate in the groundwater.

  The team finalized the project plan in June of 1999 and the project was approved and funded at 5.5 million dollars by EPA. The project lasted 4 1/2 years and was coordinated by DEQ with direct assistance from County staff. A 1.5 million dollar portion of the project funding was directed to the USGS for completion of a 3-Dimensional groundwater model designed to characterize the transport and fate of nitrogen in the groundwater aquifer within the area. Final reports for both the demonstration project and the groundwater model are in peer review and have not been released to the public. The USGS recently told us that release of the ground water report has been postponed until at least mid-September. We are unsure when EPA will release the demonstration project report.

  In 2003 USGS, DEQ and Deschutes County conducted a supplemental study funded by EPA to see if other emerging contaminants were of concern. A final report entitled "Organic Wastewater Compounds, Pharmaceuticals, and Coliphage in Ground Water Receiving

Discharge from Onsite Wastewater Treatment Systems near La Pine, Oregon: Occurrence and Implications for Transport". This report can be viewed or downloaded at: http://pubs.usgs.gov/sir/2005/5055/#download.

- In 2005 Deschutes County established a Technical Advisory Committee (TAC) (23 people were on the TAC: 7 Deschutes County staff, 4 South Deschutes County representatives, 1 DEQ staff) to re-define a transfer of development credit (TDC) program which allowed rural property owners in the area to sell their right of development into a newly established subdivision on land acquired from the Federal government to offset nitrate pollution. The subdivision is served by sanitary sewer by the La Pine Special Sanitary District. The TAC re-defined the TDC into what is now referred to as a pollution reduction credit (PRC) program. This program allows selected developers to build homes in the subdivision by either paying $7,500 for a PRC or by retrofitting an existing system in the rural area with a de-nitrification system. The concept of a county ordinance was brought up but the purpose and goal of the TAC was the re-defining of the TDC. County staff requested that the county ordinance discussions be postponed to a later date. The TAC met 7 times from July 28, 2005 to April 11, 2006.

- On June 15, 2005, DEQ sent a letter supporting the use of a county ordinance as a legal mechanism to impose more stringent performance standards. The last statement in the letter states, **"Finally, public awareness of a new ordinance is vitally important. We realize that much work has been done by the County to inform the public about the seriousness of the nitrate problem and the need to upgrade sewage treatment and disposal practices. Nevertheless, we believe that, by nature, the general public is usually apathetic to these types of initiatives and will not realize the impact of the ordinance until it is imposed upon them. As part of developing the ordinance, we would like to work with you to develop an effective public awareness program."** Copy Attached.

- In 2006, DEQ and County staff worked together on a Memorandum of Understanding (MOU) regarding the concepts, development and implementation of a County Ordinance (referred to as Local Rule) to address the nitrate problems in South Deschutes County. After several meetings it became apparent that there were differing opinions of some key issues. Both DEQ and Deschutes County staff agreed that a consensus facilitator would be helpful in the process. With the help of a facilitator a draft MOU was prepared that both parties accepted. That MOU has not yet been signed, in part due to the County starting the public hearing process. Now with the citizen dissatisfaction and the differences we have with the County's rule and process, we will most likely have to revisit the MOU for changes. DEQ requested that a stakeholder group of citizens from the area be allowed to participate in the county ordinance development phase. The County chose not to use a stakeholder group or an advisory committee while developing the County Ordinance.

- In a separate but related matter, USGS has a current study on the assessment of the potential for infiltration of septic tank nitrogen to local rivers. The field collection portion of the study is complete and the USGS is drafting the final report. This project will yield an evaluation of the denitrification potential in the near-river environment. The product will be an improved understanding of river vulnerability.

- On January 30, 2007, Deschutes County had another TAC meeting where they presented a county ordinance concept. This was the first time that TAC members were given specific

background information regarding a county ordinance. Some of the local stakeholders were concerned with what they heard.

- Despite the differences DEQ staff and TAC members had on certain aspects of the proposed ordinance, on February 28, 2007, Deschutes County began their public notice process and scheduled three public hearings for the month of March in La Pine.

- On March 6, 2007 County staff presented a draft of the county ordinance to TAC members. Several TAC members raised concerns regarding both content and timing of what was being presented to the TAC because they had not been directly involved in the development of the county ordinance. The TAC also voiced process concerns because public notices had already gone out announcing upcoming hearings by the County Commissioners on the proposal.

- Public Hearings in La Pine. The first hearing was held the evening of March 13, 2007, the second March 20th and a third March 27th. The first 2/3 of the first hearing was presentations by County and USGS staff. The rest of the first hearing and the two hearings that followed were for public comment. Not all of the public were able to testify at the hearing, and those that did speak were limited to 5 minutes. We understand that a great deal of additional written testimony has been submitted as part of the public process.

- Between the first and second hearing DEQ was asked by the County to outline our formal position on the county ordinance by letter. This was done by DEQ Director Stephanie Hallock. The letter emphasized the need to allow as many options as possible to solve the problem and stressed the importance of citizen involvement in the problem solving process. Copy attached.

- Since the hearings the citizens of South Deschutes County have voiced significant opposition to the ordinance. Many citizens are not convinced there is such urgency to the nitrate problem that has been expressed by County staff. Since the groundwater model and final reports have not been released for public review, citizens cannot investigate the science supporting the report conclusions.

- Due to the timing of events, many citizens have expressed distrust of the County process and staff and are not convinced that the proposed county ordinance is the best way to approach or solve the problem, if one exists. Some of the main concerns are related to the costs associated in complying with the proposed ordinance. Other citizens are concerned that money spent could be better utilized on a more permanent solution such as municipal sewers or cluster systems.

- One very contentious issue involves low lying lots situated close to area rivers. Sometime in the past couple of years, the county began identifying lots where they suspected groundwater rose to within 24 inches of the ground surface as "Red Lots". The county has formulated their ordinance so that these lots cannot be developed. They did this by not allowing use of normal alternative measures, including tile dewatering or placement of engineered fills which are allowed in state rules. The county is also not considering the use of cluster or municipal sewers and has been unwilling to consider any exceptions to the State's Land-use Planning Goal 11.

- On April 18th 2007, DEQ, DLCD, and County staff met with the Deschutes County Commissioners to discuss key issues and how best to proceed. At the request of the County

Commissioners, DEQ agreed to meet again once the groundwater study had been published and a thorough review completed by DEQ staff.

- On May 15th, DEQ was invited to and attended a meeting with S. Deschutes County citizens at the LaPine School. Also in attendance was Deschutes County Commissioner Tammy Baney, who was able to stay for an hour, Doug White with DLCD, and Tom Anderson and Katherine Morrow from Deschutes County Community Development Department. We estimate 300-350 people were in attendance. The following is a global summary of the meeting.

  The community had organized and formed a Citizens Action Group (CAG). Taken from their flyer, "the Deschutes County Citizen's Action Group has been formed to integrate into all aspects of community development and community decision-making. We are committed to addressing issues that impact quality of life, protecting citizens' rights and conserving our rural identity and natural resources. The Deschutes County Citizens Action Group is also committed to any and all issues affecting our community and citizenry."

  The meeting started out with questions and answers, then some community presentations, then more questions and answers. Citizens asked whether the Deschutes County Commission (DCC) was going to vote on the proposed County Ordinance in June. Commissioner Baney assured the audience that the Deschutes County Commission would wait until the Groundwater model was published, then allow for DEQ to conduct a review of the model (I affirmed DEQ would do the review within 45 days after the model is published). Commissioner Baney also said she would make sure there is time to work with the CAG. A citizen asked if the DCC had to work with the CAG and the County Planning Director answered that the CAG has to first be recognized by the County Commission.

  Many citizens asked why so few in the community knew that meetings on the proposed County ordinance were scheduled. The flyers announcing the county public hearings were in the tax statement mailings. About 25 people indicated they had seen the flyer. There were many comments on the lack of public process including thoughts that the County had purposely chosen a notification method so that the people of South Deschutes County were not aware of the meetings. Due to the use of the word "La Pine" in the notices, some that lived in the northern portion of the proposed area said they thought that they were not going to be affected.

  The citizens also asked Deschutes County why they are using scare tactics with nitrates--when the data shows that nitrate levels are not currently rising in the area. The County replied that currently the groundwater was "clean". The CAG is concerned that the media has picked up on the scare tactics. The CAG requested that the County do what they can to set the record straight, that the groundwater is clean -- because it is affecting their land values. Citizens also expressed resentment towards the Deschutes County staff.

  There was discussion on state land use planning Goal 11. The citizens had been told by County staff that Goal 11 exceptions were "not an option". DEQ and DLCD responded to their questions, saying that in some circumstances an exception may be possible. We discussed the use of newer technologies such as cluster systems, possible extension of existing sewers, and district formation for new sewers.

  On the day following the meeting someone placed signs in the Sunriver area stating that the groundwater beneath the area was polluted. This created quite a stir with many calls going to the Deschutes County Community Development and their Environmental Health Section with

concerns for the drinking water in the subdivision. The County issued a rebuttal notice stating the drinking water was safe.

Attached is the list of what the CAG requests of Deschutes County.

The CAG also desires that DEQ take over this process--to do a DEQ geographical rule rather than a County Ordinance. DEQ staff were very clear that DEQ did not have the resources to do this. Many in the audience then said that "everyone here" needs to e-mail DEQ's Director and the Governor's office and lobby for money for a DEQ position to do this work.

Organic Wastewater Compounds, Pharmaceuticals, and Coliphage in Ground Water near La Pine, Oregon

Summary and Conclusions

Organic wastewater compounds were frequently detected in onsite wastewater; concentrations commonly were on the order of tens of micrograms per liter. Organic wastewater compounds also were detected in ground water, but less frequently, and detections were mostly at concentrations below 1 µg/L. Organic wastewater compound concentrations, normalized to chloride concentrations, generally decreased from onsite wastewater treatment systems to downgradient ground water. Eight organic wastewater compounds were detected in the 20 ground water samples associated with the innovative systems network (detection frequencies up to 30 percent), and 6 different organic wastewater compounds were detected in the 31 ground-water samples associated with transect wells emplaced along ground-water flowpaths downgradient from onsite wastewater treatment system drainfield lines (detection frequencies up to 16 percent).

Ground-water samples from one transect were analyzed for pharmaceuticals. Sulfamethoxazole (an antibacterial), acetaminophen (an analgesic), and caffeine (a stimulant, but not a medical drug) each were detected once. In addition, the anticonvulsant drugs primidone and phenobarbitol were tentatively identified in three ground-water samples from one nest of wells at a separate transect.

The shallow aquifer from which the ground-water samples were collected is the primary source of water for most residents of the La Pine region. The effects of microgram-per-liter or sub-microgram-per-liter concentrations of organic wastewater compounds and (or) pharmaceuticals consumed over long periods of time are largely unknown, as are the additive or synergistic effects associated with exposure to combinations of multiple organic wastewater compounds and (or) pharmaceuticals. Some organic wastewater compounds are thought to have endocrine-disrupting properties, and pharmaceuticals are designed to impart biological effects in animals. There also is the potential for some organic wastewater compounds or pharmaceuticals to eventually discharge to streams, where the effects on aquatic organisms are largely unknown.

Dispersion and attenuation of organic wastewater compounds may explain the low concentrations observed in ground-water samples. However, although organic wastewater compounds were detected more frequently in ground-water samples with larger components of onsite wastewater (as inferred by chloride concentrations), and, in the case of transect wells, in ground-water samples proximal to onsite wastewater treatment system drainfield lines, overall occurrence patterns exhibited great variability. Organic wastewater compound occurrence and transport might be significantly affected by temporal variability of organic wastewater compound concentrations in onsite wastewater sources. Nitrogen and chloride concentrations in onsite wastewater exhibited small variability among systems, but concentrations of individual organic wastewater compounds among different onsite wastewater treatment systems varied dramatically—not uncommonly by several orders of magnitude. Thus, although temporal variability of organic wastewater compound concentrations in individual onsite wastewater treatment systems was not characterized in this study, the variability among onsite wastewater treatment systems suggest that loading of some organic wastewater compounds to the environment from individual onsite wastewater treatment systems over time might also be highly variable. Highly variable source terms likely would not be as amenable to transport modeling as would be more uniform loading such as might be expected for onsite-wastewater-derived nitrate and chloride. Similar patterns of variable pharmaceutical occurrence in ground water beg questions regarding

variability in pharmaceutical loading to the environment from onsite wastewater treatment systems. For example, do some of the occasional detections of pharmaceuticals in ground water represent relatively uniform upgradient inputs, with variable degrees of dilution and attenuation? Do some represent only occasional upgradient use of pharmaceuticals? Do some represent upgradient loading from episodic disposal that might occur when users of onsite wastewater treatment systems dispose of old pharmaceuticals by the common method of flushing down the toilet? Comparable questions could be composed for organic wastewater compounds. Characterization of the temporal variability of source strength may become one of the critical challenges in organic wastewater compound and pharmaceutical transport studies. However, the hypothesis that variability in organic wastewater compound and pharmaceutical loading might be important for understanding transport should not detract from the fact that many of these compounds are reactive, and that detailed understanding of sorption and degradation of these compounds will be essential to any transport work.

Coliphage were frequently detected in onsite wastewater, occasionally detected in lysimeters, but only sporadically detected in samples from wells located adjacent to or under onsite wastewater treatment system drainfield lines (detected in eight ground-water samples, but below method detection limits in all eight replicate or repeat samples). Coliphage concentrations in onsite wastewater varied by orders of magnitude, with F-specific coliphage concentrations ranging from <1 to 270,000 PFU/100 mL, and somatic coliphage concentrations ranging from <1 to 3,000,000 PFU/100 mL. The variability in coliphage concentrations observed in onsite wastewater is greater than that typically reported for municipal wastewater. The consistent absence of coliphage detections in the La Pine confirmatory (replicate and repeat) ground-water samples is interpreted to indicate that the detections reported for ground-water samples represented low-level field or labora- tory contamination, and we suggest that coliphage were effectively attenuated to less than 1 PFU/100 mL over dis-tances of several feet of transport in the unsaturated zone and (or) aquifer.

If coliphage survival and transport are representative of enteric virus survival and transport, the apparent absence of detectable concentrations of coliphage in the sand aquifer of La Pine might be construed positively by users of that resource. However, broader-based understanding of aquifer vulnerability to virus survival and transport remains elusive. Few plume-scale studies of naturally occurring viruses from onsite wastewater treatment systems in relatively undisturbed, natural settings have been undertaken, and results to date raise questions about factors controlling aquifer vulnerability to virus survival and transport. An understanding of conditions or processes that facilitate coliphage transport in some environments, but attenuation in others, could provide a basis for a more general understanding of field conditions and processes controlling aquifer vulnerability to coliphage.

Oregon
Theodore R. Kulongoski, Governor

Department of Environmental Quality
Eastern Region
700 SE Emigrant
Suite 330
Pendleton, OR 97801
(541) 276-4063 Voice/TTY
FAX (541) 278-0168

June 15, 2005

Deschutes County Board of Commissioners
1300 NW Wall Street
Bend, OR 97701

RE: Regional Rule for South Deschutes County

Dear Commissioners DeWolf, Luke, and Daly:

Congratulations to you and to your staff in the Community Development Department's Environmental Health Division (Environmental Health Division) for the excellent work accomplished during the La Pine National Demonstration Project. The information produced during this project has already been and will continue to be useful for other states and jurisdictions nationally, as well as for Oregon and, specifically, Deschutes County.

Having followed the work of Deschutes County which began with the Regional Problem Solving Project (RPS), I am aware of the extensive commitment you have already made to solve the issues of the south county area. As the La Pine National Demonstration Project comes to closure focus will now turn, in part, to implementing the loan portion of the project. The loan program will provide money to some homeowners in the area to retrofit or upgrade existing onsite systems and for new innovative onsite systems.

Over the past several months, the Department of Environmental Quality (DEQ) and the Environmental Health Division have discussed the need to develop a regional rule that would require more stringent performance standards for septic systems in south Deschutes County. The more stringent performance standards would address increasing nitrate-nitrogen levels in the groundwater. Our agency supports the use of a local ordinance as the legal mechanism to impose the new performance standards. Development of this ordinance will require close coordination between the county and our Department and, we believe, will require an updated contract between the county and our agency.

Finally, pubic awareness of a new ordinance is vitally important. We realize that much work has been done by the County to inform the public about the seriousness of the nitrate problem and the need to upgrade sewage treatment and disposal practices.

Nevertheless, we believe that, by nature, the general public is usually apathetic to these types of initiatives and will not realize the impact of the ordinance until it is imposed upon them. As part of developing the ordinance, we would like to work with you to develop an effective pubic awareness program.

I would like to confirm to you DEQ's commitment to continue working with Deschutes County towards a collaborative and constructive solution for the region. Again thank you for your attention and if you have any further questions please contact Dick Nichols at (541) 388-6146, x251 or Mark Cullington at (503) 229-6442.

Sincerely,

Joni Hammond
Administrator
Eastern Region

JH: WQ/MC

Cc: Tom Andersen, Deschutes County Community Development Department
Dan Haldeman, Deschutes County Community Development Department
Lauri Aunan, DEQ HQ Portland
Mark Cullington, DEQ HQ Portland
Dick Nichols, DEQ ER Bend
Bob Baggett, DEQ ER Bend

Oregon
Theodore R. Kulongoski, Governor

Department of Environmental Quality
811 SW Sixth Avenue
Portland, OR 97204-1390
503-229-5696
TTY: 503-229-6993

March 14, 2007

Tom Anderson, Director
Deschutes County Community Development Department
117 NW Lafayette Avenue
Bend, OR 97701

Dear Mr. Anderson:

I understand there is some question about DEQ's position on the proposed County Ordinance regarding nitrate contamination of water from onsite septic systems. This question may stem from a letter from my Eastern Region Administrator, Joni Hammond, to Mr. Steve Wert. Ms. Hammond's letter responded to Mr. Wert's concerns about the South Deschutes County Groundwater Protection Plan. Mr. Wert had expressed the need for additional time to conduct independent sampling of groundwater wells in the area. He also wants to conduct an independent review of the U.S. Geological Survey's nitrate loading management model. Ms. Hammond stated in her letter to Mr. Wert that DEQ encourages the County to allow a reasonable time for Mr. Wert to complete these activities. I support Ms. Hammond's statement and encourage the County to consider allowing additional time prior to adopting the Ordinance.

When I addressed DEQ's onsite program annual conference on February 13, 2006, I discussed the proposed Ordinance and how DEQ and Deschutes County are partnering in this effort. I also stated that we are hopeful the County will adopt the Ordinance in the near future.

I believe we share common goals including collaborating with each other to protect groundwater and surface water in South Deschutes County. In general, DEQ supports the proposed Ordinance; however, there are several areas in the proposed Ordinance that DEQ would have approached differently. These include allowing sewering, engineered fills, and easements as tools to be considered. These differences have been outlined in the Memorandum of Understanding (MOU) between DEQ and the County. I understand that the MOU has been drafted and is ready for signature by both parties.

We support your authority and responsibility to administer the onsite program in Deschutes County and your authority to adopt County Ordinance(s) as appropriate. We also support public process and the right of property owners in South Deschutes County to help determine the fate of groundwater and surface water in their community. The public process now underway will determine the future of the proposed Ordinance. We encourage the County to fully consider the public feedback and adapt the Ordinance as necessary. The Deschutes County Commissioners, of course, will make the final determination on how to proceed.

We remain an active partner with you in protecting the groundwater and surface water in South Deschutes County. If you have any additional questions or concerns, please contact Joni Hammond at (541) 278-4610.

Sincerely,

Stephanie Hallock

Stephanie Hallock, Director
Oregon Department of Environmental Quality

cc: Joni Hammond, DEQ, ER, Pendleton Office

Deschutes County
COMMUNITY ACTION GROUP

PUBLIC MEETING
May 15, 2006

This is what we request from the county:

- **That the Citizens Advisory Committee be an fundamental part of all future discussions in resolving this issue.**
- **The scientific reports and modeling information.**
- **Time to review the reports and modeling, including engaging a hydrologist or other professional to review the studies and models.**
- **Alternative solutions rather than one solution fits all!**
- **County assistance with Goal 5 & 11 exceptions where feasible.**
- **The County to publish ALL fees which could be imposed as a result of the proposed retrofits.**
- **A reasonable explanation of using the emergency phrase to implement legislation which could have been implemented immediately using other language.**
- **To rescind the 2002 and 2006 ordinances until the scientific evidence has been reviewed and validated.**
- **Our County Commissioners to refrain from voting in legislation which we feel is unreasonable and arbitrary.**
- **Lastly, the Board of County Commissioners CONFIRM IN WRITING to the Citizens Action Group that they will consent to these requests.**

Attachment for Building Stronger Relationships with Oregon Tribes

State of Oregon
Department of
Environmental
Quality

DEPARTMENT OF ENVIRONMENTAL QUALITY
STATEMENT OF INTENT - SENATE BILL 770
ON STATE/TRIBAL GOVERNMENT-TO-GOVERNMENT RELATIONS

PURPOSE

The Oregon Legislature adopted Senate Bill 770 in the 2001 Legislative Session. This bill directs state agencies to promote government-to-government relations with Oregon's Indian Tribes. State agencies are to develop and implement policies to include tribes in the development and implementation of state programs that affect tribes. The Department of Environmental Quality's (DEQ) intent is to maximize inter-governmental relations, to resolve potential conflicts and enhance the exchange of information, ideas and resources for the greater good of all of Oregon's citizens. The DEQ recognizes and respects the sovereign status of the Oregon federally-recognized Tribes and their respective authorities on tribal lands.

STATUTORY AUTHORITIES

The Department of Environmental Quality (DEQ) is a state agency with statutory regulatory authorities as well as federally delegated authorities for the maintenance, restoration and protection of the State's environmental resources. The responsibilities of the agency include:

- ◊ Monitoring and assessing the condition of the environment.
- ◊ Adopting or setting standards for air, water and waste management.
- ◊ Developing strategies such as permitting, enforcement, and technical assistance to enable the attainment of standards.
- ◊ To maintain the quality of areas that currently meet environmental standards.

The agency's policy and rulemaking authority rests with a five-member citizen commission appointed by the Governor for four-year terms. The Environmental Quality Commission (EQC) meets approximately every six weeks and strives to hold meetings throughout the State.

MISSION

The MISSION of the Oregon Department of Environmental Quality is to be a leader in restoring, maintaining, and enhancing the quality of Oregon's air, water, and land. DEQ envisions all Oregonians working cooperatively for a healthy, sustainable environment.

APPROACH AND PRIORITIES

Since the mid-1990's, DEQ has embraced a community based problem-solving approach to carry out statutory responsibilities. This has occurred in response to the need to maximize the use of available resources and identify ways to achieve environmental gains in the most efficient manner. In the early 1990's DEQ decentralized the agency into multiple field offices vested with technical resources and decision-making ability closer to regulated sources and local governments. Three Regional Administrators oversee DEQ's field operations throughout the State and report to the DEQ Director. These Administrators are responsible for on-going staff-to-staff DEQ Tribal working relationships.

DEQ's key priorities are reflected in its four Strategic Directives:

- ◊ Deliver Excellence in Performance and Product
- ◊ Protect Oregon's Waters
- ◊ Protect Human Health and the Environment from Toxics
- ◊ Involve Oregonians in Solving Environmental Problems

TRIBAL GOVERNMENT PARTICIPATION IN DEQ POLICY DEVELOPMENT

It is important to DEQ that Tribal concerns and interests are known and considered at the front end of policy and planning developments. The EPA/DEQ Performance Partnership Agreement (PPA) and strategic planning are two key processes that establish agency priorities. DEQ will provide designated Tribal Key Contacts notice of policy and planning efforts, and consult with tribes as necessary in considering and addressing identified issues of concern. The Tribal Liaison will maintain a list of agency issues of concern that are identified by each tribe. The Tribal Key Contacts will be asked to assist in developing and maintaining these lists. The lists will be updated biennially.

TRIBAL RELATIONS PROTOCOL

The following DEQ commitments describe the means employed to create and maintain strong tribal relations:

◊ DEQ will maintain a Tribal Liaison on Tribal Relations.

- ◊ The DEQ Director, Tribal Liaison and appropriate Regional Administrator will meet with the Tribal Chair of each tribe to provide introductions, discuss status of agency-tribal relations, current issues, and to provide early discussion on any known upcoming issues. Additional meetings will be scheduled as requested by the Tribal Chair.
- ◊ DEQ will provide a copy of Senate Bill 770 to all DEQ employees.
- ◊ The DEQ Tribal Liaison will actively participate as a member of the State Agency-Tribal Natural Resources Cluster Work Group.
- ◊ DEQ will biennially request Tribes to update or identify DEQ programs that affect or are of interest to the tribe.
- ◊ The DEQ Tribal Liaison key communications with tribes will be directed to the designated Government-to-Government Tribal Key Contact. Communications on specific projects, programs or issues will be conducted between agency and tribe staff responsible for the project/issue.
- ◊ DEQ will maintain organization information and contact sources and will provide updates annually to the Tribal Key Contacts.
- ◊ DEQ will support the exchange of data collected by its staff or by tribal government.
- ◊ DEQ will maintain information on tribal relations issues on DEQ's website.
- ◊ DEQ will ensure that managers are aware of the sovereign authority and self-government of Native American Tribes and of the organization structure of the tribal governments.
- ◊ DEQ will provide annual training to managers and key staff who communicate or work with tribal governments.
- ◊ DEQ will maintain tribal contacts on appropriate DEQ mailing lists and will request update information biennially through the Tribal Key Contacts.
- ◊ DEQ will support and participate in cooperative efforts between the tribal government, federal, state, and local governments on environmental concerns that cross jurisdictional boundaries.
- ◊ DEQ will invite tribes to participate on DEQ advisory committees of interest to tribes and will provide tribes with annual updates of advisory committee activity relevant to tribes.
- ◊ DEQ will utilize advice and guidance when appropriate from the Legislative Commission on Indian Affairs and staff on tribal government matters.
- ◊ The DEQ Tribal Liaison will initiate meetings between the Director and Tribal Chair on matters not resolved by staff.
- ◊ When appropriate, DEQ will request assistance from the Oregon Dispute Resolution Commission to help resolve issues with tribes.

DEQ – TRIBE – ENVIRONMENTAL PROTECTION AGENCY (EPA) RELATIONS

The EPA has trustee responsibilities to protect the environment on tribal lands and tribal resources outside of reservation lands. Until tribes seek and receive delegated authority to administer their own environmental programs, EPA administers federal environmental regulations on tribal trust lands. There is a potential for coordination to occur on issues that involve EPA, State and tribal shared interests and responsibilities. Opportunities exist for the three governments to coordinate, consult and partner on issues that cross jurisdictional boundaries, or that potentially impact programs of the others.

DEQ Director Approval of this Statement of Intent:

(signed) on (January 14, 2002)

Stephanie Hallock, Director Date

Attachments: organization chart, contact list and phone numbers
sb770statement.doc

Attachment for Status of Liquefied Natural Gas Projects in Oregon

Questions & Answers: DEQ Permits and Industrial Development in the Lower Columbia River Area

Spring 2007

State of Oregon
Department of Environmental Quality

Northwest Region
Air Quality Program
Water Quality Program
2020 SW 4th Avenue
Portland, OR 97201
Phone: (503) 229-5263
(800) 452-4011
Fax: (503) 229-6945

www.deq.state.or.us

Last Updated: 6/7/07

Q&A: Lower Columbia River

In January 2007, the Oregon Department of Environmental Quality (DEQ) hosted meetings in Knappa and Clatskanie, to share information and talk with community members about significant new industrial developments taking place or proposed in the Lower Columbia River area. These developments will require environmental protection permits from DEQ.

At each meeting, DEQ staff gave a short presentation to explain DEQ's role in permitting and regulating new development. After the presentations DEQ staff spoke with citizens who asked questions. This document provides answers to their most commonly asked questions.

How does the land use process fit in with the DEQ permitting process?

The terms "land use process" or "land use approval" refer to the process used by local planning authorities to designate zones for particular uses, such as residential housing, commercial, industrial, farming, etc., and the process for approving proposed new facilities. The local planning authorities are usually the city or county governments that hold jurisdiction over the area in which the facility will be located.

In most cases, owners of businesses or industrial facilities must obtain land use approval from the local land use authority before applying for any environmental permits from DEQ. A signed Land Use Compatibility Statement (LUCS), which must be submitted with a DEQ permit application, is the local government's approval that a proposed facility is consistent with its local land use plan. Once the local government makes its land use decision, generally the DEQ permitting decision must be compatible with the local decision.

The process is a little different for proposed new energy facilities (i.e., facilities that produce electricity). Many energy facilities in Oregon must obtain an Energy Facility Siting Council (EFSC) Site Certificate, and as part of their process, the EFSC may accept the local government's land use decision or make its own. The DEQ permit process proceeds at the same time as the EFSC Site Certificate process, and DEQ often issues permits at about the same time the EFSC grants a Site Certificate

Who is "FERC" and what is DEQ's role with them?

FERC is the Federal Energy Regulatory Commission. FERC is similar to Oregon's Energy Facility Siting Council (EFSC) in that both are the primary agencies that must give approval for certain types of energy facilities. FERC regulates the interstate transmission of electricity, natural gas, and oil. FERC also has nationwide authority for licensing hydropower projects and approving proposals to build Liquid Natural Gas (LNG) terminals and interstate natural gas pipelines. EFSC is not involved in LNG facility approvals. For most other energy facilities in Oregon, including coal gasification plants, EFSC has siting and approval authority and FERC is not involved. FERC may still be involved with transmission of electricity or gas. If a coal gasification plant does not produce electricity, neither EFSC nor FERC have siting and approval authority; the local land use planning agency has that authority.

Congress gave FERC new responsibilities under the Energy Policy Act of 2005 including the authority to regulate LNG facilities. However, Congress did not give FERC authority over issuing air or water permits for LNG facilities. Proposed LNG facilities must obtain a DEQ permit before they can operate. For more information about FERC, visit: www.ferc.gov

Can DEQ deny a permit?

If a facility meets, or will meet the applicable requirements, then DEQ must issue the permit. A permit can only be denied under limited circumstances, for example, if the proposed facility could not meet the applicable standards and rules. If DEQ denies a permit because the facility would not meet air or water quality requirements, the applicant could redesign the facility to meet the requirements and submit a new application. Alternatively, if the applicant does not agree with DEQ's denial of the permit, the applicant could request a hearing to challenge DEQ's decision.

Give examples of where DEQ received a complete NPDES application and decided to deny the permit.

In the early 1990s, DEQ received a National Pollution Discharge Elimination System (NPDES) permit application for the siting of a new paper mill on the Columbia River, and after reviewing the application, DEQ denied the permit. In the past 30 years, DEQ has received only two water quality permit applications for major new facilities in Oregon; one of those was denied and one was approved.

Permit denial is rare because the vast majority of proposed facilities are pre-designed specifically to meet quirements well before the decision to apply for a permit.

What role will DEQ play with the new LNG and coal gasification projects proposed for the Lower Columbia River?

The proposed LNG and coal gasification projects must obtain permits from DEQ for air emissions and water discharges.

LNG facilities use natural gas fired burners to heat and vaporize the LNG. The burners emit air pollutants from burning natural gas. These emissions would be regulated under a permit from DEQ.

Coal gasification facilities use the gas they produce to fire one or more gas turbines to generate electricity. Burning the gas in the turbine(s) emits air pollutants, and these emissions would be regulated under a permit from DEQ.

To protect water quality, DEQ regulates wastewater from facilities through National Pollution Discharge Elimination System (NPDES) permits, which regulate potential pollutants including Biochemical Oxygen Demand, Chemical Oxygen Demand, Total Suspended Solids, ammonia, nitrate/nitrite, sulphate, magnesium, chromium, and pH.

The proposed Bradwood Landing LNG facility plans to double its capacity after they begin operations. Does DEQ take this into account despite a permit application that shows a smaller amount of capacity?

An applicant has two options for applying for permits if planning to double capacity after beginning operations. First, the applicant can apply for permit limits that reflect the full capacity of the facility, even if they don't plan to install the full capacity immediately. Alternatively, the applicant can apply for a permit only for the initial (less than full) capacity. In that case, the applicant must apply for and receive a modified permit before they can construct additional capacity. DEQ reviews the requested additions, as if the request were a ew permit. DEQ requires the facility to meet the appropriate environmental standards for the new emissions or discharges, including any additional pollution control requirements that are triggered.

Are the first nations (tribes) involved in the siting and permitting of these proposed new industrial facilities?

FERC, rather than DEQ, will make decisions about siting the LNG facility, and tribal nations have a voice, as do others, in FERC's process of soliciting public input. DEQ will solicit input from tribal nations, community members and the general public on the air and water quality permit applications that the facilities submit.

DEQ has no direct role in FERC's approval process for siting LNG facilities, but LNG facilities must obtain permits from DEQ before they can operate. DEQ must determine that the projects are compatible with local land use regulations before it can issue permits.

Do ships need air and water quality permits? Who regulates air and water emissions (ballast water) from ships? A federal district court recently ruled that a permit must be issued for ballast water discharge. Is DEQ looking into that?

Ships are not required to have air quality permits. DEQ does not have the authority to regulate ship air emissions. Ship emissions can be regulated by the U.S. Environmental Protection Agency (EPA), but at this time EPA's efforts are limited to proposing tighter emissions standards for new ship engines.

EPA issued rules in 2003 that apply to Category 3 engines which are found on large commercial marine vessels, but only for those that are US flagged. The standards adopted conform to an international treaty MARPOL Annex VI, which had not yet met the minimum country adoption standards in order to be in effect.

The United States will be participating in discussions under the International Maritime Organization to advocate a new set of more stringent emission standards for marine diesel engines which would apply to engines on both US and foreign vessels.

There is currently no requirement for ships to obtain National Pollution Discharge Elimination System (NPDES) permits for their discharge of ballast water. State and federal law allows ships to discharge ballast water and take in ocean water as they pass from port to port. However, Oregon law prohibits ships from discharging ballast water into waters of the state. (Oregon statute 783.620) A recent federal district court case decision to require a permit for ballast water discharge is currently under appeal by the EPA. DEQ will continue to track the progress of this appeal. In the interim, DEQ will not issue NPDES permits for ballast water discharge activities.

What about cumulative impacts on air and water quality? How does DEQ evaluate cumulative impacts? Is there an upper limit that emissions are measured against?

For air quality, it is very difficult to assess cumulative impacts on air quality from multiple sources. Typically, a cumulative impact assessment involves developing an emission inventory of all sources of air pollution, including large industrial facilities, smaller commercial facilities, residential sources, and mobile sources like cars and trucks. This inventory must be paired with local weather information in a computer model that estimates the amount of pollution that individuals breathe.

This estimate is then compared to either a health standard, if one exists, or a benchmark that serves as a guide for pollution-reduction purposes. If a computer model estimates that a health standard or a benchmark may be exceeded, monitors are installed to collect air quality data to verify the modeling results. There are competing priorities for this kind of monitoring statewide. DEQ evaluates where to locate monitors based on the areas where the greatest problems are expected to occur, such as in the Willamette Valley and the Medford, Ashland and Klamath Falls areas.

For water quality, DEQ's Total Maximum Daily Load (TMDL) Program assesses cumulative impacts of pollution in a specific watershed and identifies pollution discharges from various industrial, business and municipal sources as well as non-point (runoff) sources. This involves large modeling efforts to describe river conditions as water moves through the watershed.

DEQ uses that information in developed river/estuary models to examine the likely effects of pollution discharges in the river at the time of discharge. DEQ's intent is to determine whether state water quality standards would be exceeded at any point in the river outside of the designated mixing zones for individual point sources. DEQ requires permitted facilities to analyze and model their discharges to ensure that state water quality standards are met.

DEQ does not currently have the resources or information needed to model the Columbia River. DEQ needs more detailed information on the concentration of the pollutants each facility discharges, where the discharge occurs, the volume of the discharge, the timing of the discharge, and specific information on river conditions.

Are you going to add all the emissions numbers together from all the proposed new industrial facilities to get a picture of the overall emissions impact to the area?

For air quality, if a new facility proposes air emissions above the EPA Significant Emission Rates, DEQ requires the owner/operator to perform computer modeling to demonstrate that the emissions will not exceed a National Ambient Air Quality Standard (NAAQS) for six common air pollutants (ground-level ozone, carbon monoxide, particulate matter, sulfur dioxide, nitrogen dioxide, and lead). EPA has determined that these air pollutants cause or contribute to air pollution that may reasonably be anticipated to endanger public health or welfare.

In most cases, DEQ air permit rules do not require a facility to compare proposed new emissions to the emissions of existing sources. DEQ does not have ability to deny a permit or impose more stringent limits based on such a comparison. However, in response to requests from community members, DEQ and the Washington Department of Ecology have compiled emissions information on a county-wide basis from both Oregon and Washington Lower Columbia counties to provide a context for the emissions from an individual facility. That emissions inventory is provided in Appendix A at the end of this document.

If a facility is large enough to trigger an additional requirement known as Prevention of Significant Deterioration (PSD) and the modeled emissions are above certain levels, the owner must model the combined effects of the nearby existing facilities plus the emissions from the proposed facility to ensure that the national air quality standards and PSD increments for the area are not exceeded.

he DEQ Water Quality Program does not currently have the resources or information needed to calculate the overall impact to the Columbia River.

Where do air and water quality standards come from? Are they arbitrary or objective and health-based?

For air quality, EPA developed the National Ambient Air Quality Standards (NAAQS) to be protective of human health. DEQ uses these standards as the basis for air quality permits issued to businesses and industry in Oregon.

For water quality, the federal Clean Water Act (CWA) requires states to develop water quality standards. Under the CWA, each state must identify and designate the beneficial uses of the states' waters. States must then establish numeric or narrative standards that will fully protect those designated beneficial uses. The Oregon Administrative Rules (OAR 340-041) describe the beneficial uses designated for all the rivers in the state and interstate waters along Oregon's border. These rules also identify the specific water quality standards associated with each water body.

DEQ develops recommendations for water quality standards for all Oregon waters. The standards are adopted by the Oregon Environmental Quality Commission and must be approved by EPA.

Does DEQ have models to check a company's projection of air and water emissions?

For air quality, DEQ does not have models to check a company's projection of air emissions. However, a company's permit application must identify the information source used to calculate emissions from a proposed facility. DEQ examines this information and compares it to similar sources to determine whether the estimates are reasonable. In addition, DEQ requires most large facilities to test emissions to prove that emissions are no higher than what the applicant initially requested and calculated.

For water quality, during the permitting process, DEQ requires facilities to conduct a mixing zone study which evaluates proposed discharges and impacts at the point of discharge. In most cases, permit applicants use models to do this. The applicant must also provide DEQ with basic data on the wastewater discharge, including the discharge pipe, discharge flows, discharge concentrations, river flows and river concentrations. DEQ uses this information to analyze the discharge and to establish specific effluent limits in the permit.

How much enforcement of air and water quality standards does DEQ carry out? How do you learn about violations?

DEQ cannot knowingly issue a permit that allows a violation of an air or water quality standard. DEQ's air and water quality permit programs are designed to be protective of standards.

For air quality, DEQ enforces air emission permits by periodically inspecting permitted facilities, and by requiring the facilities to monitor and report their emissions. With only a few exceptions, enforcement action is taken for all permit violations.

For water quality, DEQ conducts inspections of permitted facilities and if the facility is violating its permit, DEQ takes the appropriate compliance or enforcement action. This can include issuing a warning letter or a preliminary enforcement notice, which may then lead to assessment of a civil penalty.

DEQ's website provides a monthly news release of the civil penalties; see www.deq.state.or.us/news/news.asp.

For both air and water quality permits, DEQ also learns about violations through public complaints. DEQ follows up on these complaints to determine if the facility is indeed violating its permit and then takes the appropriate compliance or enforcement action. To report a complaint, call 503-229-5263 and ask for a complaint coordinator, or email nwrcomplaints@deq.state.or.us.

Q&A: Lower Columbia River

What is the impact of the new CO_2 injection well technology proposed by the coal gasification plants and how does it figure into the DEQ permit process? Will the bedrock turn into limestone?

CO_2 accounts for the majority of greenhouse gas in the atmosphere. As concern about global warming and climate change increases, there is interest in underground CO_2 injection because of the potential for this approach to reduce greenhouse gas emissions. The general idea behind underground CO_2 injection is to inject it deep into the earth so that it will be trapped and prevented from escaping back into the atmosphere. CO_2 injection is currently used to enhance oil recovery from depleted oil wells. DEQ does not know what effect CO_2 injection may have on the rock below the Lower Columbia River area.

Underground CO_2 injection is currently prohibited by Oregon's Underground Injection Control (UIC) rules, which are based on EPA's UIC rules. DEQ believes that EPA is likely to change these rules to allow CO_2 injection; however, we don't know when this change might be made.

Q&A: Lower Columbia River

Specific Air Quality Questions

Do Washington and Oregon coordinate air monitoring? What kind of monitoring is there in the Longview area?

The Southwest Clean Air Agency (SWCAA) in Washington and the Oregon Department of Environmental Quality (DEQ) coordinate air monitoring for the Portland-Vancouver ozone maintenance plan. DEQ also conducted the analysis in SWCAA's air quality monitoring project for air toxics in Longview in 2004-2005.

Will DEQ install air monitors in the Lower Columbia area?

DEQ does not currently plan to initiate air monitoring in the Lower Columbia area due to lack of funding. The Oregon Legislature is now considering requests to increase state funding for air monitoring programs. DEQ must wait for the legislative process to conclude before determining if and where additional monitoring sites will be placed.

Does DEQ have any mobile monitoring stations?

DEQ does not have mobile monitoring stations. Some monitoring is done on a seasonal basis for fine particulate (i.e., particulate matter of 2.5 microns or smaller) in the wintertime and ozone in the summertime.

If the air in Longview is already brown from air pollution why would DEQ issue new permits for more development?

The air pollution in the Longview area raises many questions for which we do not have immediate answers. DEQ and SWCAA will continue working together on this issue. Our permitting rules are designed to be protective of human health and to meet National Ambient Air Quality Standards (NAAQS). The Significant Emission Rates (SER) are set by EPA at levels that are low enough to prevent adverse effects. For pollutants that exceed the SER, the required modeling will determine whether a proposed new facility will comply with the standards. If the modeling shows that the standards will be met, a new facility would likely be permitted.

What are attainment and non-attainment areas?

A non-attainment area is a geographic region where air pollution levels for one or more criteria air pollutants violate the NAAQS. Criteria air pollutants include particulates, carbon monoxide, nitrogen dioxide, ozone, sulfur dioxide, and lead.

An attainment area is a geographic region where all air pollution levels for the criteria air pollutants meet NAAQS.

Unclassified areas are areas where no air quality monitoring has taken place before, and these areas are assumed to be in attainment. DEQ systematically picks areas where monitoring should occur based on their population growth or an increase in polluting activities. Many areas of Oregon have never been monitored for air pollution.

How does DEQ treat air pollution that does not meet standards?

When a region becomes a non-attainment area, DEQ develops a plan to reduce air pollutant levels to bring the area back into attainment with the standards. The area plan will generally include more restrictive requirements that will help reduce emissions from all sources: industrial, commercial, residential, and cars and trucks.

For example, in the 1970s the Portland-Vancouver area exceeded ozone standards for several years. As a result, more stringent requirements on new industrial facilities, rules to encourage the use of public transportation options, requirements for vehicle testing to ensure proper maintenance of emission control systems, and limits on the content of certain consumer products were adopted. Today, the Portland-Vancouver area is in compliance with federal ozone standards.

Will LNG and coal gasification facilities produce significant amounts of hazardous air pollutants like benzene and formaldehyde? How will DEQ deal with them?

Pollutant emissions from LNG and coal gasification facilities come mostly from fuel-burning devices, and they all emit some level of Hazardous Air Pollutants (HAPs), including benzene and formaldehyde. However, DEQ expects that these emissions will be relatively low and will not exceed Oregon's health benchmarks.

In general, efficient operation of these devices can hold HAP emissions to a minimum. DEQ will require combustion devices to be operated in a way to minimize HAP emissions.

If air quality permit applications for the proposed new facilities indicate that significant amounts of benzene and/or formaldehyde, or any other HAP will be produced, DEQ will require additional emission controls to reduce HAPs.

Will coal gasification facilities emit mercury?
Coal gasification facilities have the potential to emit mercury because mercury is naturally present in the coal. A coal gasification facility must meet Oregon's new standards for mercury emissions. For more information about DEQ's Utility Mercury Rule, visit: www.deq.state.or.us/aq/mercury/index.htm .

Will there be air emissions trading in the Lower Columbia area?
In the future, there may be carbon trading as a way of reducing greenhouse gases. At this time, a trading system has not been developed.

Please explain about the air toxics benchmarks. What happens if you exceed a benchmark?
In 2003, DEQ formed a state air toxics program that uses the best available science to identify and solve air toxics problems statewide. An *Air Toxics Science Advisory Committee* has helped DEQ develop health-based air toxics benchmarks, also known as standards, which are re-evaluated and/or established on an annual basis. Developing benchmarks requires approval of an air monitoring plan for a specific area and conducting monitoring for at least one year.

Monitoring results are compared with the benchmarks to determine whether an air toxics reduction plan is needed for the area. If monitored values exceed benchmarks, DEQ will develop a plan to reduce emissions of those pollutants to a level below the benchmark. The plan will include strategies to reduce emissions from all sources: industrial, commercial, residential, and mobile. Even if an area in the Lower Columbia exceeds a benchmark, it is likely that the plan for the Lower Columbia area will not be the highest priority compared to other parts of the state with more severe air toxics problems.

For more information about DEQ's Air Toxics Science Advisory Committee and Air Toxics Benchmarks visit www.deq.state.or.us/aq/toxics/index.htm .

Describe the plan for assessing cumulative impacts on air quality from the following:

- **Multiple LNG facilities and tankers**
- **Proposed coal plants planned for Port Westward, OR, and Kalama, WA**
- **PGE new and existing gas-fired power plants**
- **Mint farm gas-fired power plant planned next to Northern Star's facility in Port Westward (?)**
- **Multiple ethanol plants planned around the Lower Columbia River Estuary**

Short-Term (now to 6 months): DEQ will gather and evaluate emissions information from the States of Oregon and Washington on proposed projects in Clatsop and Columbia counties in Oregon, and Pacific, Wahkiakum, and Cowlitz counties in Washington. as they become available. DEQ will summarize this information, put it into context for the public, and present general health effects information for the pollutants emitted.

Mid-Range (6 - 12 months): Oregon DEQ will partner with Washington counterparts to conduct an analysis to estimate the impacts of the proposed projects on the populated areas of the Lower Columbia and nearby protected areas with respect to existing criteria pollutant standards and visibility goals.

Long-Range (12 months and beyond): Oregon DEQ will work with Washington partners to seek ambient monitoring resources to expand our ability to monitor for air pollution.

For more information about DEQ air quality permitting
lease e-mail aqpermit.info@deq.state.or.us or call 503-229-5359 or toll-free in Oregon, 800-452-4011.

Q&A: Lower Columbia River

Specific Water Quality Questions

How does DEQ monitor water quality?

DEQ has a fixed number of water monitoring sites on rivers and streams throughout the state and has collected water quality information for over 40 years. This is called the ambient monitoring system. DEQ also conducts specific watershed monitoring and studies in basins to help develop water quality improvement plans, known as Total Maximum Daily Load (TMDL) assessments that identify water quality problems and pollutant sources. DEQ also performs split sampling of effluent during inspections of permitted facilities. On occasion, DEQ monitors specific problems identified through complaints. DEQ requires facilities discharging under water quality National Pollution Discharge Elimination System (NPDES) permits to collect samples of their effluent and report on the parameters and sampling frequencies specifically identified in the permit. This data is usually reported to DEQ on a monthly basis.

What information does DEQ use to determine beneficial use protection for Columbia River salmon?

DEQ has developed specific water quality standards designed to protect beneficial uses including fish habitat, fishing, and swimming. When DEQ conducts sampling, DEQ compares the data collected to the state's water quality standards to determine if the standard is being met and beneficial uses are being protected. DEQ also establishes discharge limits in water discharge permits that must be met by the facility to ensure water quality standards are not violated. Again, monitoring is required to ensure standards continue to be met.

Does DEQ work with the Estuary Partnership? Do they still monitor water quality and does DEQ interact with them?

The Lower Columbia River Estuary Partnership (LCREP) monitors water quality in the Lower Columbia River. In the past, DEQ has assigned staff to assist them in implementing their program. Currently, DEQ's Columbia River Coordinator interacts with LCREP on a regular basis and attends the LCREP Science Work Group meetings. Additionally, DEQ's Columbia River Coordinator is working with federal agencies, the Washington Department of Ecology, the Idaho Department of Environmental Quality, and tribal nations in the Columbia Basin to develop a toxics reduction strategy for the Columbia Basin. The current focus of this effort is to fill data gaps from Bonneville Dam up river to Grand Coulee.

What is 401 certification?

The term "401 certification" refers to Section 401 of the federal Clean Water Act. In this section of the act, Congress assigned states the responsibility of reviewing and certifying that federal license and permit actions that affect water quality will achieve state water quality standards. When federal agencies take licensing or permitting actions that could affect Oregon waters, DEQ reviews the actions to determine whether state water quality standards will be maintained. DEQ's 401 certifications often include conditions on the proposed actions to ensure water quality is protected.

For more information on 401 certification visit: www.deq.state.or.us/wq/sec401cert/sec401cert.htm.

Where would an applicant appeal if a 401 certification is denied?

If DEQ denies a 401 certification, the applicant can appeal that decision to the Oregon Environmental Quality Commission (EQC). The EQC is a five person citizen board appointed by the Governor to oversee the DEQ, establish state environmental policy and adopt rules.

Is DEQ going to issue a 401 certification related to FERC's issuance of a license for the proposed Bradwood Landing LNG facility?

Yes, DEQ plans to issue 401 certifications associated with both FERC's issuance of a license for the proposed facility and for the individual permit actions that will be taken by federal agencies. This would include dredging the boat basin area and construction of the pipeline and terminal facilities.

Has DEQ thought about reorganizing its 401 staff to manage the tremendous workload?

In order to secure additional staff and address the large workload in the 401 certification program, DEQ is asking the Oregon Legislature for permission to increase fees for 401 certification. If DEQ is not granted approval to increase fees, DEQ must continue to address all of Oregon's 401 certification applications with the two full-time employees currently funded by the program.

Q&A: Lower Columbia River

Who regulates the temperature of water quality emissions?
DEQ regulates the temperature of discharged wastewater from facilities through water quality permits. Temperature is key criteria when protecting fish habitat and other beneficial uses of Oregon waters.

What about taking water out of the river?
The Oregon Water Resources Department (WRD) regulates the taking of water out of Oregon's rivers and streams. WRD must issue a state water right before any water can be withdrawn. See www.wrd.state.or.us for more information.

How does coastal zone management fit in with the permitting process?
The Oregon Department of Land Conservation and Development (www.lcd.state.or.us) manages the Coastal Zone Management program and has identified specific land use requirements in the coastal area. Permit applicants must obtain a land use compatibility statement (LUCS) from the local land use agency stating that the proposed facility is in compliance with the local land use plan, including the Coastal Zone Management Plan.

If there are three facilities with water quality permits in one area and one leaves town can the other two take the load allocation from that other facility?
If there are three facilities in a river, all with their own NPDES permits with permitted waste loads, and one facility closes, its permit will be terminated. The two remaining facilities do not have a right to the waste load identified in the closed facility's permit. If either of the remaining permitted facilities wants to obtain part of the closed facility's waste load, they will need to request a "load increase" to their own permit. Load increases for major facilities are normally presented to DEQ's governing body, the Oregon Environmental Quality Commission (EQC). DEQ reviews these requests and makes a recommendation to the EQC, which has the authority to reject or approve the application for increased discharge.

What is going on with domestic waste water at Port Westward?
Port Westward is pursuing a state Water Pollution Control Facility (WPCF) permit from DEQ to construct a large on-site wastewater system at the location of the plant.

For more information about DEQ water quality permitting
Please contact Elliot Zais, zais.elliot@deq.state.or.us, 503-229-5292, or toll-free in Oregon, 800-452-4011.

Q&A: Lower Columbia River

Appendix A – Emission Inventory of Clatsop, Columbia, Wahkiakum & Cowlitz Counties

he following table gives the emissions inventories for Clatsop, Columbia, Wahkiakum and Cowlitz Counties. Each inventory is for the entire county.

The data for Clatsop and Columbia Counties are from the Oregon Department of Environmental Quality's Air Quality Emissions Inventory for 2002.

The data for Wahkiakum and Cowlitz Counties are from the Washington Department of Ecology's Air Quality Emissions Inventory for 2005 (draft).

County	Source	CO	SO2	NOX	PM10	PM	VOC
Clatsop	Area	6,606	50	262	5,653	571	2,742
Clatsop	Biogenic	1,804	0	41	0	0	7,309
Clatsop	Nonroad	5,961	198	793	81	0	1,017
Clatsop	Onroad	17,185	47	1,626	39	0	1,368
Clatsop	Point	2,021	1,325	0	1,600	1,628	432
Columbia	Area	6,402	44	276	7,718	488	2,619
Columbia	Biogenic	2,042	0	61	0	0	9,045
Columbia	Nonroad	4,161	155	711	65	0	663
Columbia	Onroad	15,040	39	1,392	32	0	1,264
Columbia	Point	8,008	1,149	0	600	589	2,423
Wahkiakum	Area	149	1	4	115		126
Wahkiakum	Biogenic	1,362		50			5,784
Wahkiakum	Nonroad Mobile	331	2	17	2		56
Wahkiakum	Onroad Mobile	1,150	3	129	3		91
Wahkiakum	Point						
Cowlitz	Area	2,389	12	59	733		2,214
Cowlitz	Biogenic	3,472		115			15,933
Cowlitz	Nonroad Mobile	7,589	117	1,408	82		1,234
Cowlitz	Onroad Mobile	30,668	66	3,449	81		2,404
Cowlitz	Point	4,181	1,097	3,603	439		2,389
Total	**All Sources**	**120,522**	**4,304**	**13,998**	**17,243**	**N/A***	**59,113**
Total	Area	15,546	107	601	14,219		7,701
Total	Biogenic	8,680	0	267	0		38,070
Total	Nonroad	18,043	471	2,930	230		2,971
Total	Onroad	64,043	155	6,596	155		5,127
Total	Point	14,210	3,571	3,603	2,639		5,244

***Insufficient data exists to make a meaningful comparison of the total Particulate Matter (PM) to other area pollutants.**

CO = carbon monoxide; SO_2 = sulfur dioxide; NOx = nitrogen oxides; PM_{10} = particulate matter that is 10 micrometers and smaller in size; PM = particulate matter (including PM_{10}); VOC = volatile organic compounds. Emissions are listed in tons.

Area refers to smaller industrial and commercial facilities that generally are not required to obtain environmental permits, such as small printers and dry cleaners. This category also covers the pollution resulting from activities such as residential wood combustion, painting, residential backyard burning, structure fires, and vehicle refueling.
Biogenic refers to emissions from biological sources, such as forests and other vegetation.
Nonroad refers to vehicles and machinery that are not used on roads (e.g. construction machinery, off-road recreational vehicles, etc.).
Onroad refers to emissions from vehicles operated on roads (cars, trucks, and buses).
Point refers to emissions from larger industrial facilities that generally have an environmental permit.

Attachments for Legislative and Budget Update

DEQ Legislative Update
June 7, 2007

DEQ Budget Bills

DEQ Appropriations Bill – House Bill 5022 is the main DEQ budget bill that includes the base budget as well as all the budget policy packages that are not supported by fee bills. Status: Passed the House; headed for a Senate floor vote.

DEQ Fee Ratification Bill – House Bill 5023 provides approval for the WQ permitting and AQ Oregon Low Emission Vehicle fees passed by the EQC since 2005 legislative session. Status: Passed the House; headed for a Senate floor vote.

Bills Related to the Air Quality Program

Title V - Senate Bill 107 increases fees for major industrial permittees to equal the cost of the permitting program as required by federal law. While an existing statute allows annual adjustments to the fee based on changes in the Consumer Price Index, this bill is needed to align the fee to current costs. About two weeks before the first hearing, industry's "no position" on the proposed 24% fee increase changed to opposition. Industry was interested in concessions on both the fees and regulations that exceed federal requirements. Negotiations between stakeholders and DEQ resulted in a fee table that spreads the increase over three years (approximately 8% per year) and increased disclosure requirements when adopting a rule that affects Title V sources and is more stringent than federal requirements. The increased disclosure includes a description of alternatives considered and the reasons the alternatives were rejected, and groups affected by the rule can request a hearing directly in front of the EQC. Status: Headed to the Governor's desk.

Clean Diesel – House Bill 2172 provides grants, loans and tax credits to retrofit, rebuild or replace older diesel engines and to reduce diesel idling. Incentives will be available for operators of all types of diesel engines, including trucking and construction companies, agricultural operations, municipalities, school districts, marine operators and railroads. This bill has broad support and no known opposition. This is currently proposed for funding with $1,150,000 in General Fund, $1,500,000 in Federal Funds and $500,000 federal transportation funds. Status: Passed the House with a unanimous vote and will go to Senate Finance and Revenue next.

Heat Smart For Clean Air – The Senate Environment and Natural Resources Committee Bill (SB 338) provides funding to help homeowners replace old uncertified woodstoves with cleaner options and includes a requirement for removal of uncertified wood stoves upon sale of the home. The bill would fund the grant program by redirecting Asbestos and Open Burning penalties from the General Fund to the grant fund. The Associated Oregon Industries originally strongly opposed this funding mechanism, but we have negotiated a workable solution with them that preserves the funding. While the cost of the grant program was not included in the Governor's Recommended Budget or the Ways and Means Co-chairs Budget, it appears that funding may be restored. Status: It appears to be headed to the Ways and Means Natural Resources Subcommittee.

Low Emission Vehicle Registration – House Bill 2272 would require proof of compliance with California emission standard when a new vehicle is registered in Oregon. It will protect Oregon consumers from unknowingly purchasing a noncompliant vehicle and Oregon dealers from unfair competition by violators. This approach is used by nearly all of the states that have adopted California's vehicle emission standards. It passed both chambers with strong supporting votes. Status: Headed to the Governor's desk.

Agriculture Air Quality – Senate Bill 235 introduced jointly with the Oregon Department of Agriculture (ODA), would allow regulation of agriculture to the extent necessary to comply with the federal Clean Air Act. It would designate ODA as the lead implementing agency, and would authorize ODA to conduct research on best management practices to reduce emissions from agricultural operations. Environmental groups were not satisfied with the bill and were successful having their amendment passed by the Senate Environment and Natural Resources Committee. This amendment has a significant fiscal impact on DEQ and ODA as it would require setting ammonia and hydrogen sulfide standards. The agriculture industry is equally determined to undo the amendment. DEQ, ODA and the Governor's Office are working to develop a compromise amendment that could pass both chambers. Status: Depending on the success of the negotiations, this bill may be released to the Ways and Means Natural Resources Subcommittee for a public hearing and work session in mid-June.

Bills Related to the Land Quality Program

Land Quality Fee Bills - Four DEQ – Land Quality bills passed out of the Senate Environment and Natural Resources Committee on February 8. SB 103 helps maintain adequate funding for our hazardous waste work by increasing hazardous waste generator fees. SB 104 maintains adequate funding for our underground storage tank (UST) work by increasing annual UST permit fees. The bill also makes permanent the pilot optional field ticket enforcement procedure. SB 105 maintains adequate funding for our work related to marine spill prevention and also expands spill prevention planning requirements to liquefied natural gas (LNG) vessels and facilities. SB 106 provides funding to pay for auditing heating oil tank (HOT) decommissioning and cleanup work by increasing the fee charged for filing HOT contractor reports. Status: SB 103, 105 and 106 have been signed by the Governor; SB 104 is headed to the Governor's desk.

Electronic Waste – Three comprehensive electronic waste management bills were introduced (HB 2395 by a legislative interim committee, HB 2626 by Representatives Dingfelder and Bruun, and SB 541 by Senator Morse). The three bills focused on the recycling of personal computers, monitors, lap tops and televisions through a system managed or financed by product manufacturers. The House Committee on Energy and the Environment Committee Chair Dingfelder formed a work group of interested parties including DEQ to reach consensus on bill language using HB 2626 as the vehicle. This bill was unanimously passed by both chambers. Status: Signed by the Governor.

Bottle Bill Changes – There were at least three bills introduced addressing Oregon's Bottle Bill. They ranged from adding water bottles to the existing statute to an expansion of the Bottle Bill to include all beverages other than milk, raise the deposit to 13 cents with a refund of 10 cents, capture the unredeemed deposits and establish redemption centers as an alternative to returning containers to stores. SB 707 was the successful bill that includes adding water bottles and sets up an interim committee to consider future increases to the bottle deposit, expanding to other types of beverage containers and consideration of redemption alternatives such as special redemption centers. Status: Signed by the Governor.

Ballast Water Bill – Senate Bill 643 creates the Shipping Transport of Aquatic Invasive Species Task Force to study and make recommendations for combating the introduction of aquatic non-indigenous species associated with shipping-related transport into the waters of the state. The DEQ director is authorized to appoint members of the task force and PSU staff may provide staff support or coordination support. In conjunction with this bill, one FTE has been added to the Land Quality budget to support ballast water reporting and regulation efforts. Status: Scheduled for consideration at the Ways and Means Joint Committee meeting of June 8. If passed out of Ways and Means, it would go to the Senate and House for consideration on the floor.

Bills related to the Water Quality Program

Underground Injection Control (UIC) – House Bill 2118 is the result of joint stakeholder and DEQ efforts to secure statutory authority to establish fees to keep this program at DEQ. Last year DEQ initiated the process to return program primacy to EPA due to affordability issues. Stakeholders asked the EQC to reconsider this action and as a result, the EQC asked that stakeholders and DEQ work to seek funding support during the 2007 Session. Status: Signed by the Governor.

WQ Toxics Reduction – *This is a non-DEQ sponsored bill.* Senate Bill 737 is an agreement by municipalities to start reducing persistent bioaccumulative toxic pollutants (PBTs) through pollution prevention and toxics reduction, by 2011, statewide for the 52 large wastewater treatment plants. It requires DEQ to develop a list of priority PBTs that pose a threat to waters, human health, wildlife and aquatic life by June 2009. By June 2010, DEQ must submit a report to the Legislature on the priority list of PBTs that includes identification of point, nonpoint and legacy sources of priority PBTs "from existing data" and source reduction and control methods that can reduce PBT discharges. By June 2011, the largest wastewater treatment plants statewide must submit to DEQ a plan for reducing their discharges of priority listed PBTs. Their plans can include but not be limited to collection of legacy pesticides; reducing mercury amalgam in dental offices; working with businesses to reduce PBT use and discharge; recycling fluorescent lamps; etc. This work will be funded by a municipal surcharge to fund the first two years of the program begins in July 2008; we would hire as soon as possible after that, but program would probably not start until fall of 2008. There is ongoing work associated with this bill including the review of the reduction plans for the priority PBTs and incorporating those plans into permits.

To ensure that DEQ will be able to meet the deadlines set out in the bill, provide for public input into the process, and develop necessary guidance for permittees affected by this bill, DEQ will need two Natural Resource Specialist 4 limited duration positions that will be funded by the surcharge. After DEQ submits its report to the Legislature by June 1, 2010, the positions funded by the surcharge will be eliminated. Beginning in June 2009, DEQ will need a permanent position to conduct the ongoing work for this new program. We will need to request general funds for this position and associated Attorney General costs in the 2009 Legislative Session. Status: Headed to Ways and Means Natural Resources Subcommittee.

Fact Sheet

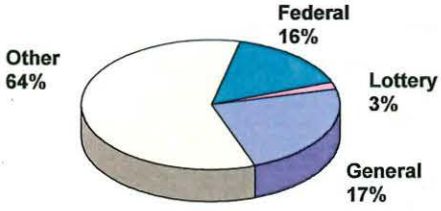
2007-09 DEQ Proposed Budget

Background

The Oregon Legislature proposes to adopt a $298 million budget for the Oregon Department of Environmental Quality (DEQ) for 2007-09. The proposed budget would increase overall funding by 12.4% and increase General Fund monies by 67%, from $22.7 million to $38 million. Federal funding is $7 million less than in 2005-07. Funding from fees increases by about 10%, from $82 million to $90 million.

Of the $298 million recommended overall budget, $104 million is for grants and loans to local communities, and debt service. The remaining $194 million is DEQ's operating budget, an 11.8% increase from 2005-07. General Funds make up 17% of the operating budget, Lottery Funds contribute 3%, Federal Funds provide 16%, and fees and other revenues provide the vast majority -- 64%. In 2005-07, the funding split was 11% from General Funds, 2% from Lottery Funds, 22% from Federal Funds, and 65% from fees and other revenues.

2007-09 DEQ Proposed Operating Budget
$194,061,674



The budget funds 796 DEQ staff (full time equivalents/FTE), netting only 19 additional staff over 2005-07 levels. Many of the approved positions are actually renewed positions that were to be cut due to a lack of revenue, and others are restored positions cut in prior years. DEQ's peak staffing level was 862 staff in 2001-03.

Air Quality Program budget

The **Air Quality** $52 million budget is an increase of $6.8 million, with an additional $6.6 million in General Fund, including $1.15 million for Clean Diesel grants. Funding provides for 20 new staff and a planned reduction of 31 Vehicle Inspectors. Total Air Quality staff for 2007-09 will be 230 FTE, which is 18 less than 2005-07 and 61 less than 2001-03.

Highlights:

- **Meet Federal Air Quality Health Standards** - Restores DEQ's fine particulate monitoring network, enhances ozone monitoring and adds back open burning complaint response.
- Health Risks from **Toxic Air Pollution** - Adds air toxics monitors in Salem/Albany and Medford, expands air toxics outreach, develops an air toxics plan for Portland.
- **Protect Columbia River Gorge Air Quality** - Air quality strategy for Columbia River Gorge National Scenic Area.
- **Clean Diesel** – Carries out HB 2172, providing grants and tax credits for fleet operators to reduce diesel emissions through new, retrofit or rebuilt diesel engines.
- **Federal Industrial Permitting** - SB 107 provides for a phased-in fee increase of 24% over three years, providing adequate staff for federal permitting /compliance (Title V).
- **Air Contaminant Discharge Permitting** - Provides a fee increase of 20% to maintain staff and issue timely permits. Compensates for cuts in federal funds and inflationary costs.
- **Asbestos Program** –A fee increase ranging from $65 to $2,500 will continue current staff and add one position for prevention work with small businesses and homeowners.
- **Vehicle Inspection Program** – No fees are increased. Inspector staffing levels have dropped from 118 FTE in 2001-03 to 64 FTE in 2007-09 because of technology upgrades.
- **Oregon Low Emission Vehicle Program** - Two new staff will provide technical assistance, compliance and enforcement and will adopt and implement Oregon's LEV program. This is funded by an existing fee on the largest auto manufacturers.

Water Quality Program budget

The **Water Quality** budget increases by $10 million dollars, including $6.9 million in General Fund, $1.4 million in Lottery Funds, and $3.4 million in Other Funds, while Federal Funds decrease by $1.7 million. The budget funds 240 staff; this is 39 more than in 2005-07 but only 6 more when compared to 2001-03. Many of the new positions will be phased in because they are funded by fees that must first be adopted by the Oregon Environmental Quality Commission.

Highlights:

- **Wastewater Permitting** – Phases in 3 new staff funded by General Funds and a 5% fee

State of Oregon
Department of Environmental Quality

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Alternative formats
Alternative formats (Braille, large type) of this document are available. Contact DEQ's Office of Communications & Outreach, Portland, at (503) 229-5696, or call toll-free in Oregon at 1-800-452-4011, ext. 5696.

Last Updated: 6/12/07
By: Pollock/Seastrom
07-OD-001

increase to help develop up-to-date and consistent permits, and improve compliance and enforcement timeliness.

- **Stormwater** – Phases in 19 positions funded by General Funds and fees to develop and maintain a consistent and coordinated stormwater program including timely application reviews, public notice, technical assistance and inspections for more than 4,000 stormwater permits.
- **Monitoring /Clean Water Plan** – Continues 2 positions to maintain partnerships with communities implementing clean water plans and maintain Oregon's current water quality monitoring network.
- **Groundwater** – Continues monitoring in areas with groundwater pollution and work with local communities to reduce pollution to groundwater.
- **Water Quality Standards** - Phases in 3 positions to begin work on backlog of outdated standards.
- **Water Quality Toxics Monitoring** - Phases in 10 new positions to develop a water quality toxics monitoring program for Oregon, beginning with the Willamette River.
- **401 certification** (removal-fill projects) – Restores and adds fee funding to provide timely water quality review and technical assistance for removal and fill projects in rivers, lakes, streams and wetlands.
- **Onsite Sewage Treatment** - A $20 surcharge fee increase supports 3 new positions to conduct audits and provide guidance to counties.
- **Underground Injection Control (UIC)** - House Bill 2118 establishes fees to add 6 new positions to deliver the basic elements of a functional statewide UIC program and keep authority with the state rather than with the U.S. Environmental Protection Agency (EPA).
- **State Revolving Fund** - Bond sales and federal grants will help fund 15 to 20 low-interest loans to upgrade sewage treatment plants and other water infrastructure projects.

Land Quality Program budget

The **Land Quality** budget increases by a net $850,000. This includes increases in General Funds ($1.3 million) and Other Funds ($5.3 million), but a reduction of $5.7 million in Federal Funds. The budget, by and large, maintains programs at current levels, but there were notable reductions, partially offset by new activities. Federal Funds were reduced due to the completion of a Superfund cleanup; 15 cleanup and hazardous waste positions were eliminated due to insufficient revenue. With five new positions, Land Quality now has 230 staff, which is 10 fewer than in 2005-07, and a net decrease of 19 staff since 2001-03.

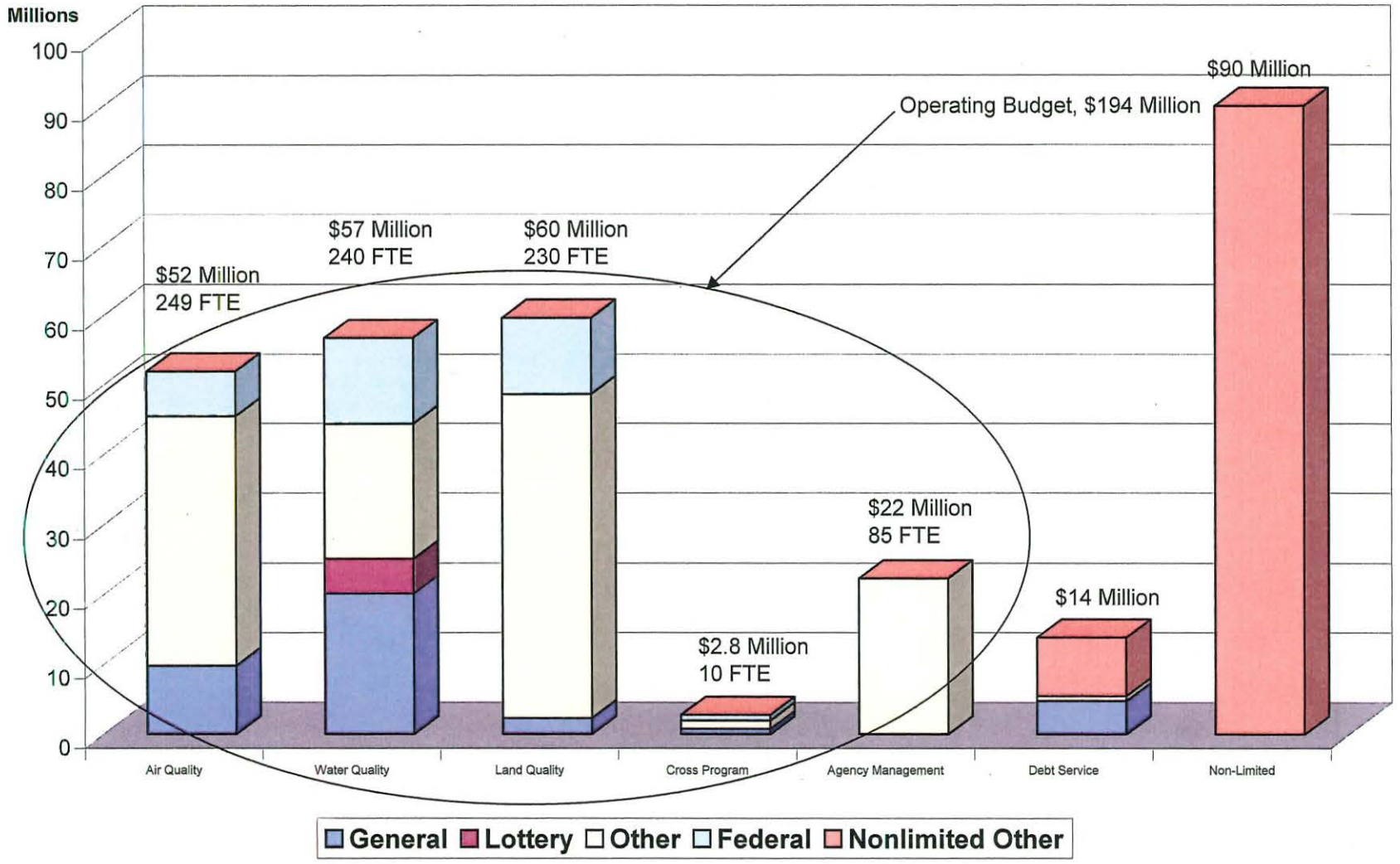
Highlights:

- Fee increases will maintain sufficient staff to protect the environment in three programs: **Underground storage tank compliance** work will continue, funded by an increase of $50 per tank. An 18% increase in hazardous waste generator fees, along with a restoration of General Funds, will maintain **hazardous waste compliance** efforts. An increase in fees charged to users of major waterways supports **marine spill prevention**.
- **Orphan Site Cleanups** – $4.4 million in bond funding will pay for continuing investigation and cleanup work at about 40 contaminated sites where there is no responsible party to fund the cleanup.
- **Heating Oil Tanks** – Adds one new position funded by increased fees (ranging from $75 to $200) to audit contractors, protecting homeowners from fraud.
- **Electronics Recycling** – Adds 3 new positions to implement HB 2626, which establishes a statewide system to collect and recycle electronic devices, funded by fees charged to product manufacturers.
- **Ballast Water Regulation** – One new General Funded position for reporting and regulating ballast water discharges.

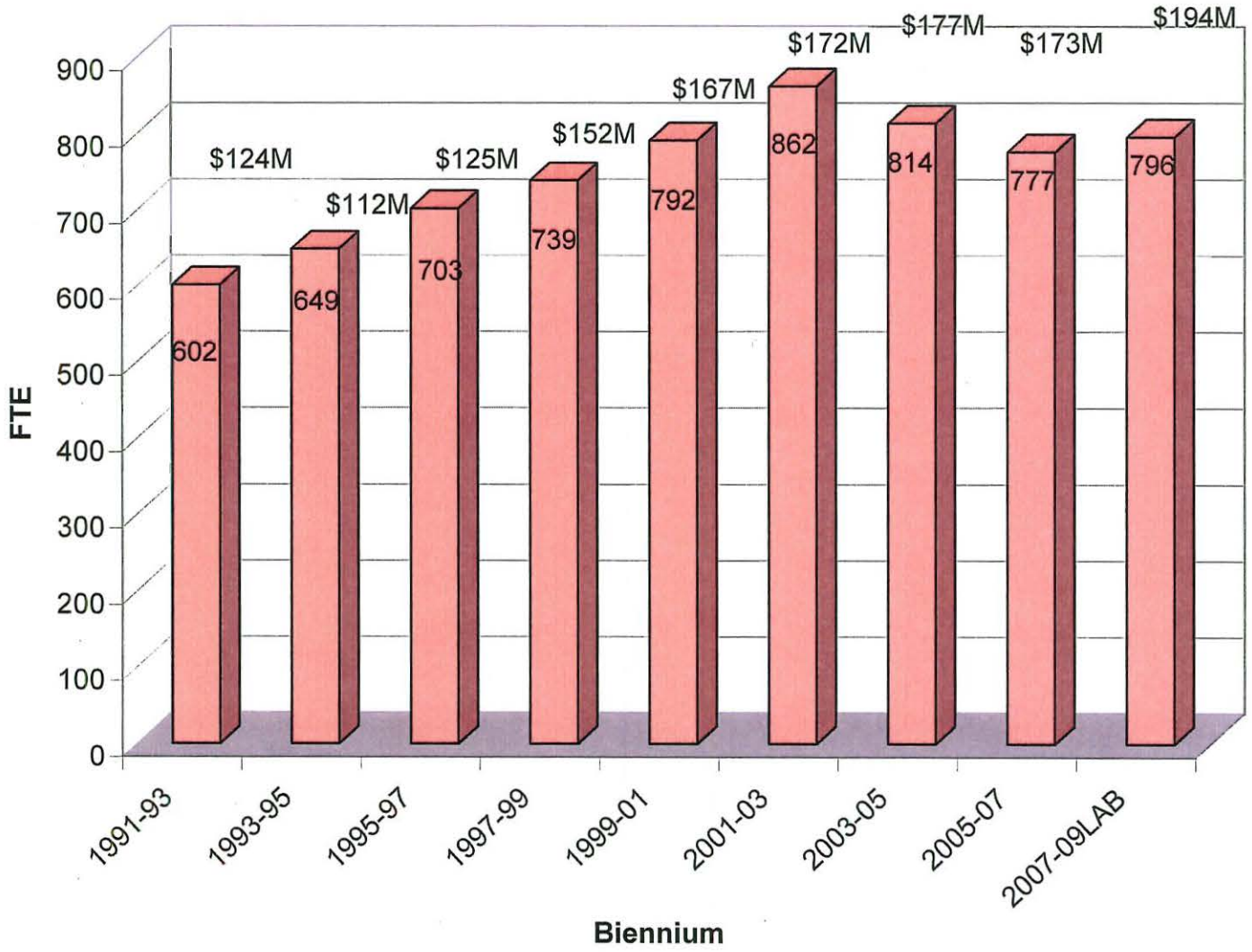
Agency-wide highlights:

- Liquefied Natural Gas (LNG) Facilities Planning – (air, water & land) 2 fee-funded staff for permitting, inspections and compliance for applications to site LNG facilities in Oregon.
- After 25 years in below-market rent space at Portland State University in Portland, DEQ's **Laboratory** will move to its new location in Hillsboro this summer. The budget includes the final costs of relocation.
- **Infrastructure at DEQ** has not kept pace with increasing business demands for many years. The 2007-09 budget adds an internal auditor, continuous process improvement, grants management, workforce succession planning and training, improved access to public documents, and formalized strategic planning. **Agency Management** staffing totals 85, a net increase of 7 from 2005-07, and a net increase of 1 since 2001-03. Agency Management is funded by a surcharge on the air, water and land quality budgets.

2007-2009 Legislatively Adopted Budget, By Program
$298,023,148



AGENCY STAFFING AND OPERATING BUDGET OVER TIME



KELLY Toneasha

From: HALLOCK Stephanie [Stephanie.Hallock@state.or.us]
Sent: Wednesday, June 20, 2007 10:10 AM
To: LOTTRIDGE Helen; KELLY Toneasha
Subject: FW:

Please attached this and another email I am going to send from Andy to my Director's Dialogue for EQC. I want to mention both and have email copies for the EQC. Thanks.

-----Original Message-----
From: GINSBURG Andy [mailto:Andy.Ginsburg@state.or.us]
Sent: Tuesday, June 19, 2007 6:21 PM
To: lynn_hampton@hotmail.com; billblosserpr@yahoo.com; RepJudyU@aol.com; Donalda.dodson@ocdc.net; kenneth.williamson@orst.edu
Cc: HALLOCK Stephanie; CARRIER Michael; LOTTRIDGE Helen
Subject:

Commissioners -

This is a quick heads up that you may see an air permitting issue in the news tomorrow. The federal courts have overturned part of an EPA rule that limits emissions of hazardous air pollutants from wood products facilities. This could have a significant impact on emissions, costs, compliance and agency work load.

If you are interested, details are below. Please let me know if you have any questions.

Andy

Andy Ginsburg
Air Quality Administrator
Oregon Department of Environmental Quality
ginsburg.andy@deq.state.or.us
503/229-5397

-----Original Message-----
From: GINSBURG Andy
Sent: Tuesday, June 19, 2007 5:59 PM
To: (All DEQ) Executive Management Team; [OD] Office of Communications and Outreach
Cc: [All DEQ] AQ RMT
Subject: Heads up on significant air permit issue

Today, the DC Circuit court invalidated part of EPA's rule to reduce hazardous air pollutants (HAP) from wood products facilities (known as the wood products MACT). EPA's rule had allowed sources to avoid putting on controls if they showed through modeling that they had low risk. EPA had also allowed them an extra year for compliance. The court threw out both of these features. As a result, the sources have to install controls by October 1 of this year and we expect that several will not be ready.

The risk modeling issue is significant beyond this MACT standard. When Congress adopted the 1990 Clean Air Act Amendments, they specifically said that MACT would be technology-based, not risk-based, because the risk-based approach had resulted in gridlock up until then. When EPA proposed the risk exemption, DEQ opposed that because it turned the whole MACT process on its head (this was included in Stephanie's first letter to then EPA Administrator Mike Leavitt). At the same time, we were concerned that the technology-based MACT standard would require many companies to install incinerators to reduce HAPs, thereby generating a lot of NOx (bad for ozone) and CO2 (bad for global warming), and possibly put smaller wood products companies out of business. The requirement for incintators, in turn, came from an EPA enforcement case against the wood products industry due to New Source Review violations. We did not support that enforcement case because we

didn't agree with the basis for the case nor the remedy (incineration). Today's court ruling reignites (pun intended) all of those issues.

All of this comes on top of a recent court ruling that vacated EPA's boiler MACT. Without going into detail, that ruling could mean that some sources with large boilers could be retroactively in violation, that DEQ may need to do rulemaking to fill the gap, and that there could be new barriers to burning biomass in boilers to offset fossil fuel use.

Jerry Ebersole is on point for the media. His number is 503-229-6974. Jerry was already interviewed by Michael Milstein, and there could be an Oregonian story as soon as tomorrow. As you can see from the e-mail below, the Air Quality Regional Managers (and LRAPA) are working on this issue, and will coordinate with DOJ and OCE. Also, Jerry is compiling a list of effected sources and their location so we can notify legislators who may be interested.

Please let me know if you have any questions.

Andy

Andy Ginsburg
Air Quality Administrator
Oregon Department of Environmental Quality
ginsburg.andy@deq.state.or.us
503/229-5397

-----Original Message-----
From: GINSBURG Andy
Sent: Tuesday, June 19, 2007 3:26 PM
To: [All DEQ] AQ PMT; 'Logan Paul S'; HICKMAN Jane
Subject: Attention: Wood MACT Decision

This is really significant. The courts threw out the risk-based off ramp to the wood products MACT and also killed the 1-year compliance extension. The court found that the CAA does not allow risk to be used for a subcategory (i.e. the "low-risk" subcategory) and that EPA can't extend compliance beyond 3 years. That means MACT is due on 10/1, and we will likely have sources who are not ready. I'd like to have a conference call with the RMT, Paul and someone from OCE to discuss this ASAP - Emma can you set it up. Tom Wood is expert on this, and is willing to share what he knows. Let's try to have him join the second half of the call.

While we're at it, let's discuss the boiler MACT decision. That is a somewhat different case since the courts vacated the entire rule. The issue had to do with the definition of a boiler - anything that burns waste must be regulated under Section 129 vs. Section 112, and the two must be mutually exclusive. This raises several issues: 1) is hog fuel a waste and, if so, does it need to be regulated under Section 129? How does that affect the use of biomass and solid waste disposal? 2) What happens to the new boilers that are major sources that have been built in the last few years - technically, they should have gone through
112(g) if there is no MACT. 3) Do we need a case-by-case MACT for existing sources until EPA readopts MACT?

Andy

Andy Ginsburg
Air Quality Administrator
Oregon Department of Environmental Quality
ginsburg.andy@deq.state.or.us
503/229-5397

-----Original Message-----
From: Wood, Thomas [mailto:TRWOOD@stoel.com]
Sent: Tuesday, June 19, 2007 2:38 PM

To: GINSBURG Andy
Subject: FW: Wood MACT Decision

I thought you might be interested in this email I sent out to a few clients before lunch. This should make the next few months rather interesting.

Tom

Thomas R. Wood
Stoel Rives LLP
Desk: (503) 294-9396
Cell: (503) 349-4845
Fax: (503) 220-2480

> _____
> From: Wood, Thomas
> Sent: Tuesday, June 19, 2007 11:56 AM
> To: Wood, Thomas
> Cc: Morford, J. Mark; McIntyre, Krista K.; Banks, Martin K.
> Subject: Wood MACT Decision
>
> I just got word that the one-year compliance extension and the
> risk-out option of the MACT standard applicable to wood products
> facilities (Wood MACT) was vacated today by the DC Circuit. More news

> to follow, but I thought persons involved in that standard would want
> to know ASAP.
>
> Tom
>
> Thomas R. Wood
> Stoel Rives LLP
> Desk: (503) 294-9396
> Cell: (503) 349-4845
> Fax: (503) 220-2480
>
>

KELLY Toneasha

From: HALLOCK Stephanie [Stephanie.Hallock@state.or.us]
Sent: Wednesday, June 20, 2007 10:11 AM
To: LOTTRIDGE Helen; KELLY Toneasha
Subject: FW: EPA Proposal for new Ozone Standard.
Importance: High

Here is the other email that gets attached to the Director's Dialogue. Thanks.

-----Original Message-----
From: GINSBURG Andy [mailto:Andy.Ginsburg@state.or.us]
Sent: Tuesday, June 19, 2007 6:31 PM
To: HALLOCK Stephanie
Subject: FW: EPA Proposal for new Ozone Standard.
Importance: High

Another big air day tomorrow! EPA plans to propose the new ozone standard. Within the range being considered, Eugene, Medford, Portland and Salem could all violate. From what I hear, the most likely number they will pick is 0.070. As you can see from the chart below, all of our areas are just below that.

I didn't forward this to Mike Carrier or EQC since I just sent a long e-mail on MACT and I don't want to overwhelm them. You can forward, or I can after it hits the news.

Andy

Andy Ginsburg
Air Quality Administrator
Oregon Department of Environmental Quality
ginsburg.andy@deq.state.or.us
503/229-5397

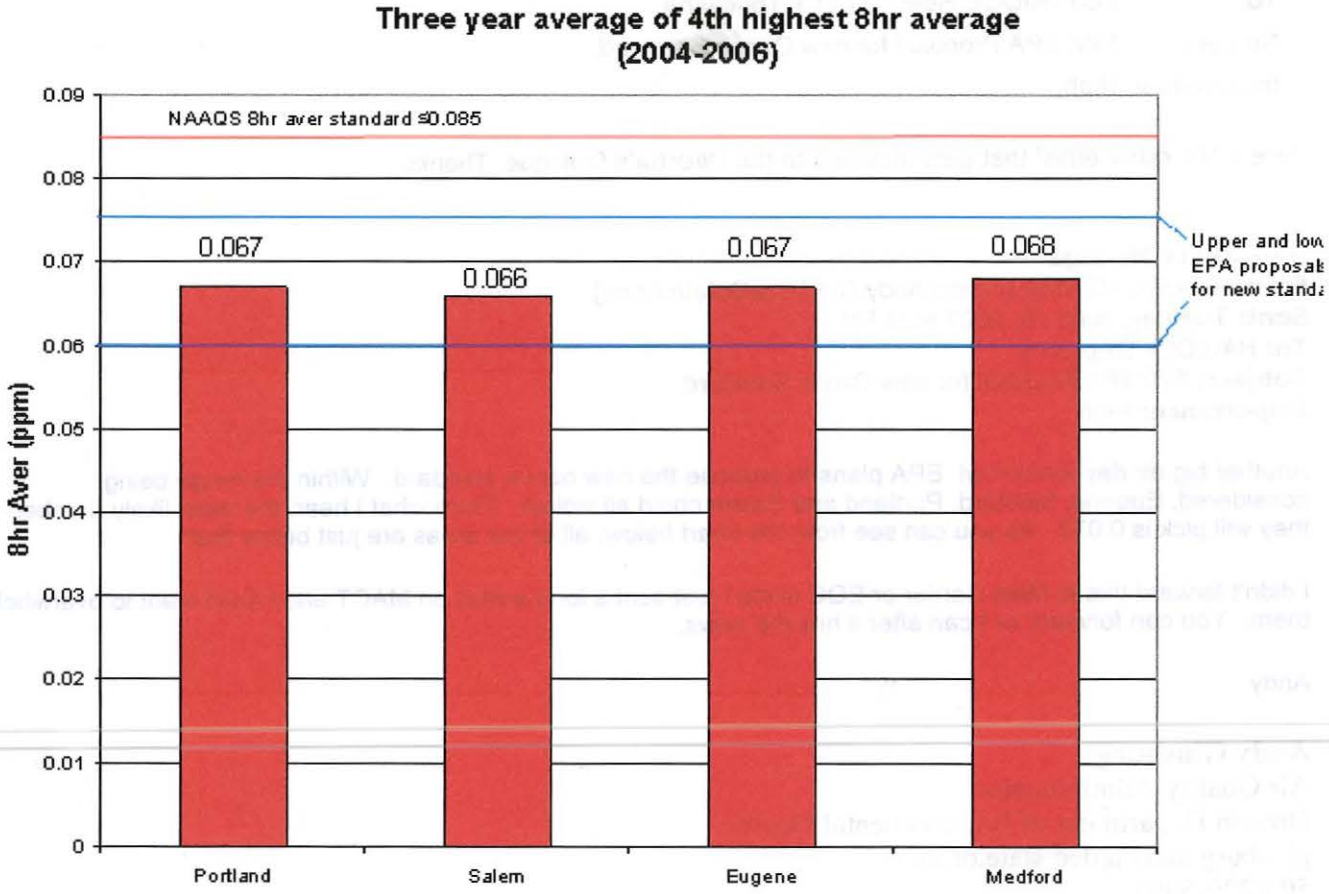
-----Original Message-----
From: COLLIER David
Sent: Tuesday, June 19, 2007 9:42 AM
To: [All DEQ] AQ PMT; GINSBURG Andy; DECONCINI Nina; HAMMOND Joni; NELSON Kerri; DANAB Marcia; LANDE Gregg; KNIGHT William; BARNACK Anthony; EPA: Paul Koprowski
Subject: EPA Proposal for new Ozone Standard.
Importance: High

Tomorrow, July 20th, we're expecting EPA to announce their Notice of Proposed Rulemaking for a new Ozone NAAQS. EPA is expected to propose a new primary standard somewhere between 0.075 and 0.060 ppm (the current standard is 0.085 ppm, rounded to 0.08ppm), and (this is new) an additional secondary welfare standard to protect ecosystems, crops, etc. Gregg Lande, William Knight, and Anthony Barnack are coordinating this for us and are our main points of contact. Please let them know if you need any information. Gregg & Co will be assessing what EPA's proposal means for Oregon, and evaluating options for Oregon to comment on the new proposal. EPA's final decision on a new standard will be made by March 12, 2008.

Please let us know if you need anything.

Thanks
dc

Recent Ozone Chart



Oregon Department of Environmental Quality

2007-09 Legislative Proposals and Governor's Recommended Budget

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

Strategic Directions: Promote sustainable practices; Improve Oregonian's air and water; Protect people and the environment from toxics; Involve Oregonians in solving problems.

LEGISLATIVE PROPOSALS

Bill #	Purpose
SB103	Increase generator fees to partially support hazardous waste compliance assurance. (pkg. 131)
SB104	Reinstate and increase fee to maintain underground storage tank assistance and oversight. (pkg. 130)
SB105	Increase fees to maintain marine oil spill prevention and preparedness. (pkg. 134)
SB106	Increase filing fees for heating oil tank cleanup and decommissioning to allow adequate oversight of licensed contractors performing these services to homeowners. (pkg. 132)
SB107	Fee increase to continue the Title V air permitting program. (pkg. 112)
SB235	Allows regulation of agriculture to the extent necessary to comply with the federal Clean Air Act. (ODA/DEQ bill)
SB338	Heat Smart: Reduce public health risks from wood stove emissions. (Senate Environment and Natural Resources bill)
HB2118	Provides authority to DEQ to charge fees to administer the underground injection control program. (pkg. 160)
HB2172	Provides loans, grants and tax credits to reduce diesel engine exhaust. (pkg. 119)
HB2272	Require proof of compliance with low emission vehicle standards to register new vehicles in Oregon. (DMV/DEQ bill) (pkg. 118)
HB5005	Establishes amounts authorized for issuance of general obligation bonds.
HB5022	Appropriates moneys from General Fund to DEQ for biennial expenses. Limits expenditures from other funds & federal funds.
HB5023	Approves certain new or increased fees adopted by Department of Environmental Quality.

POLICY PACKAGES

#	Purpose	Cost	FTE
110	**Meet Federal Air Quality Health Standards:** Prevent health risks from fine particulate and ozone air pollution.	GF $2,369,244*	8.1 FTE
111	**Reduce Health Risks from Toxic Air Pollution:** Reduce health risks to Oregonians from toxic air pollution.	GF $1,842,301	7 FTE
112	**Meet Clean Air Act Requirements for Title V Permitting:** Ensure compliance with air pollution requirements at Oregon's largest industrial facilities. (SB107)	OF $609,450 (+Indirect: $104,117)	3.5 FTE
113	**Maintain Asbestos Health Protection Program:** Reduce health risks to Oregonians from exposure to asbestos during building renovation, repair and demolition.	OF $454,037 (+Indirect: $75,316)	2.5 FTE
114	**Maintain an Effective ACDP Permit Program:** Maintain an Air Contaminant Discharge Permit Program that ensures effective compliance with air pollution requirements.	OF $358,156 (+Indirect: $61,479)	2 FTE
115	**Protect Columbia River Gorge Air Quality:** Develop and implement a policy and technical air quality plan for the Columbia River Gorge and implement the visibility monitoring network.	GF $571,047	2 FTE
117	**Implement Advanced Technology Vehicle Inspection:** Improve service and reduce costs by continuing the migration of the Vehicle Inspection Program to advanced technology.	OF $525,576 (+Indirect: $105,321)	6 FTE
118	**Implement Oregon Low Emission Vehicle Program:** Reduce Oregon's emissions of greenhouse gases that contribute to global warming. (HB2272)	OF $410,296 (+Indirect: $40,433)	1.5 FTE
119	**Clean Diesel:** Reduce public health risks from diesel emissions by providing grants and loans. (HB2172)	GF $3,000,000 FF $1,500,000	
120	**Enhance Wastewater Program:** Support development of up-to-date and consistent permits and improve timeliness of compliance and enforcement for permit violations.	GF $126,459 OF $162,937 (+Indirect: $26,761) FF $250,000	1.5 FTE

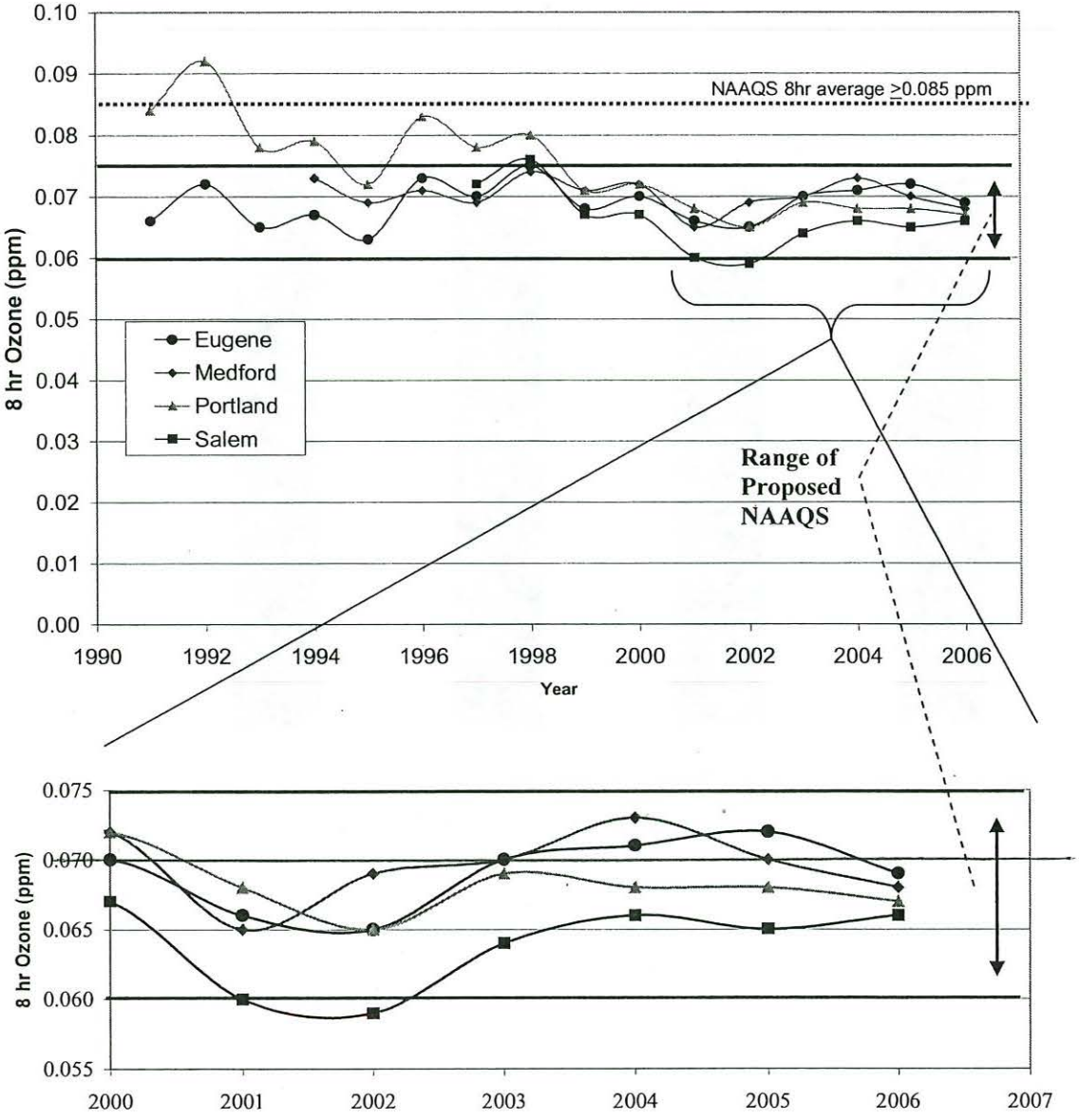
121	**Watershed-based Toxics Monitoring:** Develop a water quality toxics monitoring program for Oregon, beginning with the Willamette River.	GF $1,818,271	7.26 FTE
122	**Stormwater Control:** Ensure timely application reviews, public notice, technical assistance, integrate and streamline related programs, identify non-regulatory opportunities.	GF $1,535,559 OF $1,409,245 (+Indirect: $233,938)	17.5 FTE
123	**Drinking Water Protection:** Continue federal funds to protect drinking water in Oregon.	OF $1,014,145 (+Indirect: $172,570)	5.5 FTE
125	**Enhance Onsite Septic System Program:** Conduct audits of contract county programs to ensure onsite rules are applied correctly and provide guidance to counties to improve statewide consistency.	OF $442,504 (+Indirect: $73,044)	3 FTE
126	**Coastal Beach Bacteria Monitoring:** Continue federal funds to monitor bacteria levels at Oregon's beaches.	OF $157,541 (+Indirect: $22,352)	1 FTE
127	**Water Quality 401 Project Certification:** Support timely and protective DEQ water quality review and technical assistance for dredge and fill projects in rivers, lakes, streams, wetlands.	OF $207,361 (+Indirect: $31,037)	1.25 FTE
128	**Restore Water Quality Monitoring and TMDL Positions:** Continue assessing water samples for pollutants and help Rogue Basin communities improve water quality.	GF $344,772	1.74 FTE
130	**Maintaining Underground Storage Tank Assistance & Oversight:** Continue to protect the environment and the public from leaks of hazardous substances from underground tanks. (SB104)	OF $1,178,219 (+Indirect: $206,127)	6.65 FTE
131	**Hazardous Waste Compliance & Oversight:** Continue inspections to protect the environment and the public from exposure to hazardous wastes. (SB103)	OF $349,106 (+Indirect: $61,762)	1.65 FTE
132	**Heating Oil Tank Decommissioning & Cleanup:** Increase oversight of service providers of Heating Oil Tank cleanup and decommissioning. (SB106)	OF $131,541 (+Indirect: $22,352)	1 FTE
133	**Clean Up Contaminated Orphan Sites:** Continue to clean up contaminated orphan sites.	OF $4,800,000	
134	**Marine Spill Prevention:** Continue oversight of marine oil spill prevention and preparedness activities. (SB105)	OF $212,465 (+Indirect: $37,431)	1 FTE
140	**Business & Workforce Accountability:** Improve risk management, workforce planning, & customer service.	OF $1,257,445**	8 FTE
151	**Environmental Information Exchange Network:** Automate reporting for air quality & hazardous waste, deliver wastewater discharge data.	FF $373,718 (+Indirect: $61,592)	2 FTE
152	**Homeland Security Chemical Analysis:** Continue analysis of unknown materials associated with threats.	OF $174,575 (+Indirect: $29,256)	1 FTE
153	**Planning, Permitting & Compliance for Liquefied Natural Gas Facilities:** Provide environmental reviews required for federal siting approval.	OF $301,218 (+Indirect: $50,070)	2 FTE
160	**Underground Injection Control Program:** Develop a basic UIC program and retain primacy. (HB2118)	OF $862,104 (+Indirect: $143,159)	5.69 FTE
171	**Laboratory Rent Increase – AQ:** Continue air quality sample analyses with modern equipment.	GF $261,236 (+Indirect: $21,453***)	1 FTE
172	**Laboratory Rent Increase – WQ:** Continue stream monitoring and technical assistance to watershed councils and other agencies.	GF $503,718 (+Indirect: $29,388***)	0.56 FTE
173	**Laboratory Rent Increase – LQ:** Continue to provide equipment to detect and analyze toxic gases from landfills and spills.	GF $100,039	
181	**Clean Water State Revolving Fund Loans & Bonds**	NL $16,060,000	
183	**Clean Up Contaminated Orphan Sites:** Funds cost of issuing bonds.	NL $80,000	
191	**Clean Water State Revolving Fund Bond:** Debt Service.	NL $4,810,000	
193	**Clean Up Contaminated Orphan Sites Bond:** Debt Service.	GF $638,250	

**General Fund cost includes indirect; indirect associated with Other & Federal Funds is specified.*

***Funded by indirect provided from other packages.*

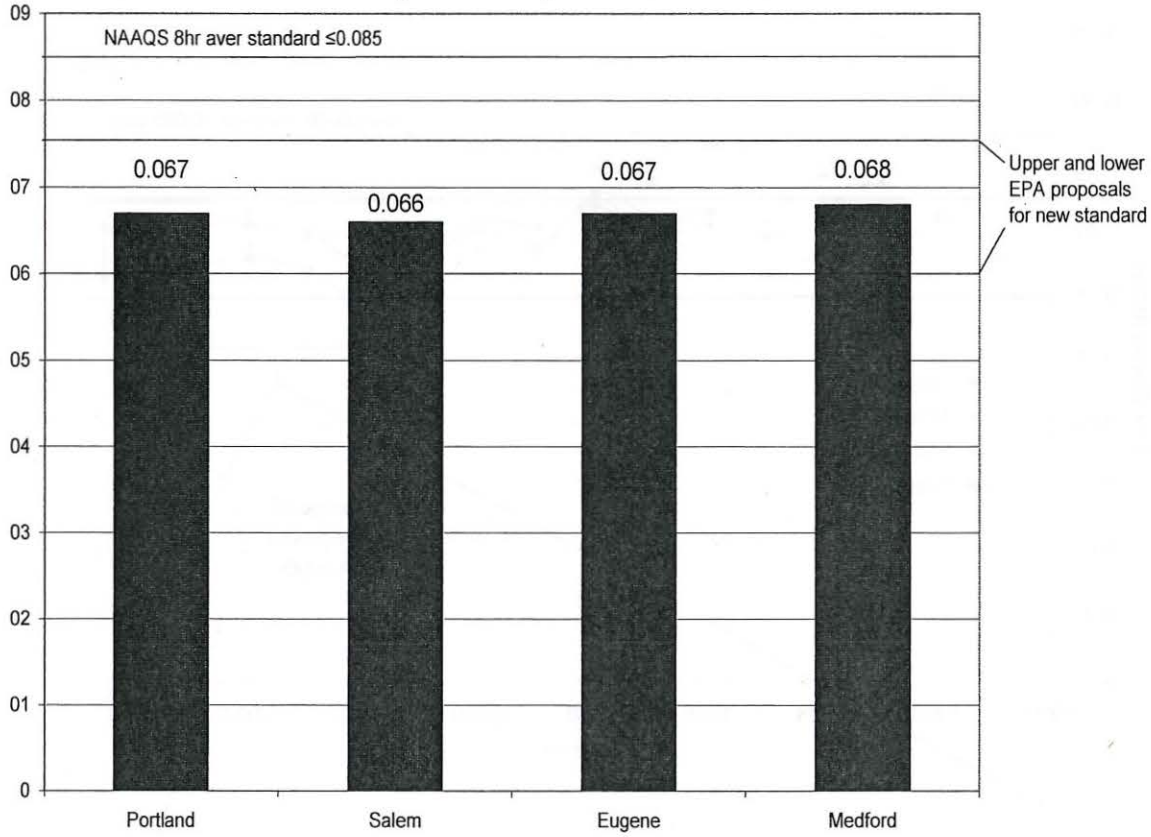
****Indirect is associated with positions on Other Funds & Federal Funds.*

Oregon Ozone Trend (1991-2006)



Ozone values are the three year average of the annual fourth highest eight hour ozone average

Oregon Ozone Comparison to the National Ambient Air Monitoring Standard (2004-2006)



es are the three year average of the annual fourth highest eight hour ozone average

Proposed revisions to the primary standard

- EPA proposes to set the primary (health) standard to a level within the range of **0.070-0.075 ppm** (70 -75 ppb)

- The Agency also requests comments on alternative levels of the 8-hour primary ozone standard, within a **range from 0.060 ppm up to and including retention of the current standard (0.084 ppm).** (EPA also proposes to specify the level of the primary standard to the third decimal place, because today's monitors can detect ozone that accurately.

Proposed revisions to the secondary standard

- EPA is proposing two options for the secondary standard:
  - One option would **establish a new form of standard designed specifically to protect sensitive plants from damage caused by repeated ozone exposure throughout the growing season.** This cumulative standard **would add daily ozone concentrations across a three-month period.** EPA is proposing to set the level of the cumulative standard within the range of 7 to 21 ppm-hours.

  - The other option would follow the current practice of making the secondary standard identical to the proposed primary 8-hour standard.

- EPA will take public comment for 90 days following publication of the proposal in the Federal Register.

ESTIMATED TIMELINE FOR IMPLEMENTING THE PROPOSED STANDARDS

- EPA will issue final standards by March 12, 2008. Based on that date, EPA estimates the following implementation schedule:
  - *By June 2009*: States make recommendations for areas to be designated attainment and nonattainment.
  - *By June 2010*: EPA makes final designations of attainment and nonattainment areas. Those designations would become effective 60 days after publication in the Federal Register.

- *2013*: State Implementation Plans, outlining how states will reduce pollution to meet the standards, are due to EPA (three years after designations).
- *2013 to 2030:* States are required to meet the standard, with deadlines depending on the severity of the problem.

Court Decision on the Plywood/Composite Wood Products NESHAP

What did the court do?

- Removed the risk-based exemption:
  - Background: EPA adopted a NESHAP exemption for a subcategory of facilities that demonstrate low-risk
  - Court ruling: Clean Air Act only allows EPA to exempt an entire source category on the basis of low-risk
  - Result: Sources no longer allowed to demonstrate low risk to avoid installing emission controls

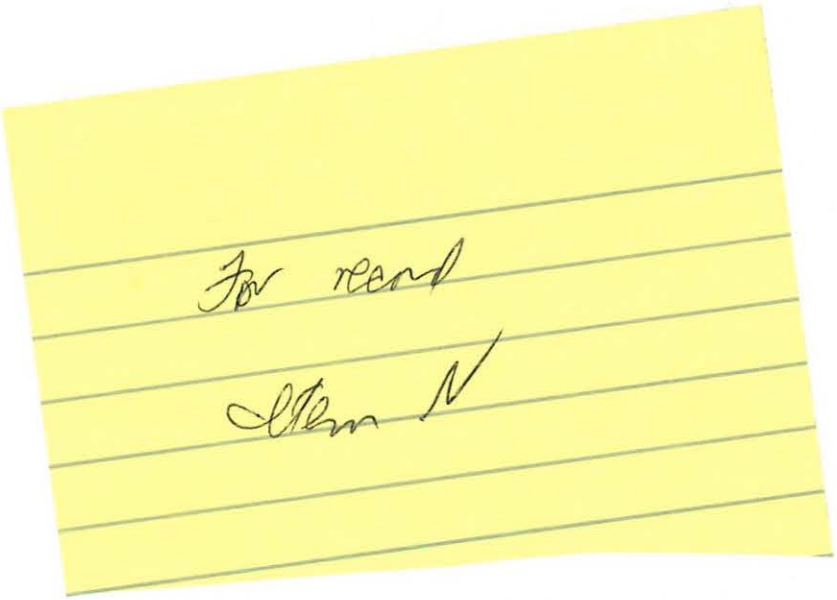
- Removed the 1-year compliance extension:
  - Background: In Feb. 2006 EPA extended the compliance date for existing sources from 3 years to 4 years
  - Court ruling: Clean Air Act requires that compliance schedule for existing sources not exceed 3 years
  - Result: Not only do sources lose the risk-based exemption, they are now required to install controls 1 year earlier (October 1, 2007)
  - Possible relief: The Department does have authority to extend compliance up to 1 year (October 1, 2008)

How many sources are affected by the court ruling?

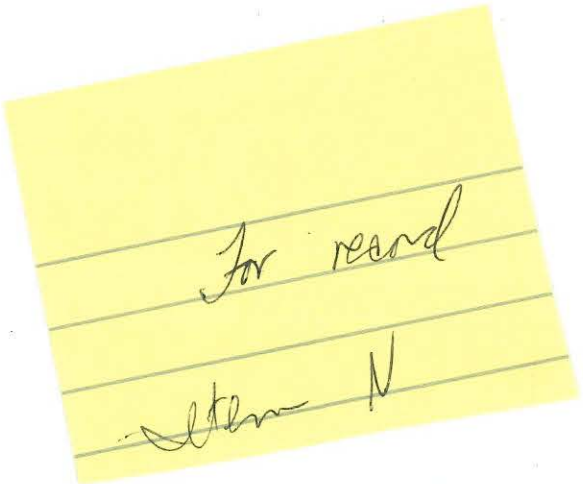
- 21 Oregon sources subject to the NESHAP in Oregon
- Many were planning on using the risk-based exemption
- Some were planning for controls at the same time they were planning for the risk-based exemption

What action is the Department planning on taking to address this issue?

- Meet with the 16 sources as soon as possible
- Advise sources that they need to submit extension requests prior to October 1, 2007
- Discuss what enforcement discretion/action to apply to facilities unable to install controls by October 1, 2008



FAC_ID	SOURCE_NAME	FAC_CITY	Planned Control Device	Installed?	Reason	Planned Risk Out
60010	Roseburg Forest Products Co.	Coquille	RCO	No		No
100013	Riddle EWP	Riddle	RCO	Yes		
100025	Roseburg Forest Products	Dillard	RTO/RCO/Biolfilter/Boiler	No		No
100078	Roseburg Forest Products	Riddle	RCO/Boiler	No		Yes
150004	Boise Cascade Corporation	Medford	RTO	Yes	Consent Decree	Yes
150020	Rogue Valley Plywood	White City	RTO	No		No
150025	Timber Products Co.	Medford	RTO or RCO	No		Yes
150073	SierraPine, A California Limited Partner	Medford	P2/Biofilter/Wet Scrubber	No		Yes
170030	Timber Products Co.	Grants Pass	RTO or RCO	No		
180006	Jeld Wen	Klamath Falls	Biofilter	Yes		No
180013	Collins Products LLC	Klamath Falls	Unknown	No		Yes
200529	Flakeboard MDF					Yes
203102	Murphy Plywood					Yes
207050	Rosboro	Springfield				
207510	McKenzie Forest Products					
208256	Veneer Technologies	Eugene				No
208866	SierraPine, A California Limited Partner		RTO or RCO or Biofilter			Yes
220143	Weyerhaeuser Company	Albany				
310002	Boise Cascade Corporation	La Grande	RTO	Yes	Consent Decree	Yes
310006	Boise Cascade	Elgin	RTO	Yes	Consent Decree	Yes
342066	Stimsom Lumber Company	Gaston				Yes


For record

THEODORE R. KULONGOSKI
Governor

Governor Kulongoski's Strategies for Meeting Water Needs in the Columbia Basin

Key Premise

There are significant water supply issues throughout areas of Oregon, none more severe than in parts of Umatilla and Morrow Counties. We've seen significant ground water declines throughout these counties (over 400 feet in some wells), and the Water Resources Department (WRD) has instituted restrictions on ground water use, with impacts on farms, people and economic vitality. I am committed to helping to resolve this important set of problems.

What are the Unmet Water Needs in Eastern Oregon?

These unmet water needs include the following high priorities:

WRD estimates that unmet water needs in Eastern Oregon total over 330,000 acre-feet (af) annually. Demand varies seasonally with peak unmet demands reaching about 945 cubic feet per second (cfs) of water in July. This estimate includes water to meet pending applications requesting new uses of Columbia River water. There is also a significant need to replace ground water in critical and restricted ground water areas that cover almost 800 square miles of the Umatilla Basin. Specific needs include:

1) Replacement water for ground water rights appropriating water from Umatilla Critical Ground Water Areas
   - Majority of ground water rights in the Umatilla critical areas not fully satisfied.
   - Includes restoring irrigation to 57,000 acres that have been curtailed.
   - Includes 42 cfs of non-irrigation uses such as municipal and industrial uses.

2) Confederated Tribes of the Umatilla Indian Reservation (CTUIR)
   - Claims federal reserved water rights to fulfill the primary purposes of their reservation.
   - Quantity of these claims is undetermined
   - Oregon Water Resources Department has reserved 75,000 acre feet of water for CTUIR in the Umatilla Basin.

3) Pending surface water applications for the mainstem Columbia River and for a hydraulically connected ground water application:
   - Six pending applications
   - Includes about 13,000 primary acres and 10,500 supplemental acres for irrigation use during the irrigation season
   - Includes 78 cfs for non-irrigation uses (primarily municipal and quasi-municipal uses) for year round uses of water

Why Don't We Just Turn to the Columbia for Additional Supply?

Oregon has *not* been issuing new water rights from the mainstem Columbia during the growing season for a number of years, largely due to flow targets established from April 15 – September 30 to protect threatened and endangered fish. While there is potential for additional withdrawals of winter flows, summer withdrawals without appropriate mitigation are a problem. Not only would such withdrawals negatively affect already imperiled fish populations, they would very likely precipitate new litigation under the Endangered Species Act. Moreover, they would set the stage for our neighbor states who share the Columbia River system to begin allowing new uses without adequate mitigation. This would result in a modern-day water war among the states who have worked hard to balance flows for fish, power, irrigation and biological benefits.

What Are My Strategies for Addressing the Need for Additional Supply?

I am implementing several strategies to secure additional water resources for Eastern Oregon. The cornerstone for these strategies is the Oregon Water Supply and Conservation Initiative and creation of a Statewide Water Development Task Force.

The State of Oregon has also joined the Westland Irrigation District and Confederated Tribes of the Umatilla Indian Reservation in a joint effort to address multiple water issues in the Umatilla Basin. A key part of my Initiative was recently approved and committed to by Secretary of the Interior, Dirk Kempthorne. Interior and the Bureau of Reclamation will immediately implement a Water Supply Study for the Umatilla River Basin which will determine which large water development projects are needed to provide new water for irrigation development and municipal supplies, new water to satisfy the needs of the Confederated Tribes of the Umatilla Indian Reservation and water to complete the restoration of the Umatilla River and its renowned salmon recovery program. I have worked closely with the Westland Irrigation District and Confederated Umatilla Tribes to implement this program and the recent commitment by Interior will provide $450,000 to initiate this important program. We will maximize the benefit to Oregon of this federal investment by integrating it with my Water Supply and Conservation Initiative.

I have included funding for the Oregon Water Supply and Conservation Initiative in my 2007-2009 recommended budget for the Water Resources Department. The Initiative is a significant step to resolving our long-term water supply needs in the Columbia and elsewhere. The Initiative would quantify our existing and future water needs and our opportunities to meet these needs through above and below ground storage, conservation, and water reuse. It would also provide match funding for communities and regions to identify ways to meet their long term water needs.

As part of a short term effort to address Columbia Basin water needs, the WRD and ODFW have jointly analyzed water available to divert from the mainstem Columbia during the winter without negatively affecting fish. Both agencies have agreed that winter water, totaling nearly 11 million acre-feet, is available to divert and store. The challenge is to find adequate and appropriate places to store this water.

Immediate Steps I Am Taking

- Assist the Lower Umatilla Critical Groundwater Area Task Force to provide alternative water supplies for farms that are affected by recent over-use of the aquifers. Also, I am directing the Department of Environmental Quality to work aggressively to address water quality issues related to the injection of river water from excess winter flows into deep underground aquifers.
- Fund and complete the Oregon Water Supply and Conservation Initiative which would quantify unmet water needs in the Columbia Basin and statewide and would create a comprehensive inventory of suitable above and below ground storage opportunities. $900,000 is budgeted.
- Create a Statewide Water Development Task Force to explore critical water needs and provide guidance to the Water Supply and Conservation Initiative. I will ask the State Water Resources Commission to work with me to form a special task force to guide the Initiative.
- Support amendments to Senate Bill 600, a bill authorizing the statewide comprehensive water supply and conservation initiative. These amendments are recommended by the Confederated Tribes of the Umatilla Indian Reservation to address targeted water supply efforts in the Umatilla and Walla Walla River basins.
- Support House Bill 3203 which would create a lottery backed funding program at the Oregon Economic and Development Department for cost share feasibility studies of storage and water reuse projects. Amount to be funded: $5,000,000.
- At my urging, the Secretary of the Interior has implemented a $450,000 study of Phase III of the Umatilla Basin Exchange Project and other large scale, new water supply projects that would address irrigation water needs of Westland Irrigation District, water needs of the Confederated Umatilla Tribes and of the lower Umatilla Basin and streamflow restoration for the Umatilla River.
- Oregon is a party to the state/federal/tribal collaboration to develop a new biological opinion for the Federal Columbia River Power System. As the collaboration explores improvements to managing the hydrosystem, I have directed that irrigation uses be fully protected and, if possible, expanded.
- Secure agreements with State of Washington to a specific quantity of water *for Oregon* as part of that state's Columbia River Water Development Program. Provide policy level representation from Oregon to the Washington Program, including assistance in working with Department of Interior and Congress.