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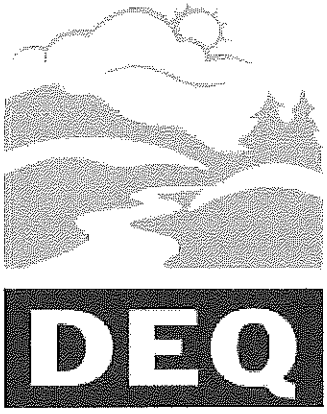
OREGON
ENVIRONMENTAL QUALITY
COMMISSION MEETING
MATERIALS 06/18/2009



State of Oregon
Department of Environmental Quality

EQC Meeting Agenda
June 18 and 19, 2009
DEQ Headquarters, Room EQC-A
811 SW 6th Ave, Portland

Thursday, June 18 -- *Regular Meeting*

Time	Item	Topic	Presenter/Status	Background
8:30 a.m. 15 min	A	Preliminary Commission Business: Adopt minutes of the April 17, 2009, regular meeting		
8:45 30 min	B	Informational Item: Update on the status of the Umatilla Chemical Agent Disposal Facility	Joni Hammond, Rich Duval	
9:15 60 min	C	Informational item: Director's Dialogue	Dick Pedersen	
10:15 15 min		BREAK		
10:30 60 min	D	Action Item: Ross contested case	Jane Hickman, Courtney Brown	
11:30 75 min		Lunch break and executive session	Larry Knudsen	Discuss current and pending litigation with counsel.
12:45 p.m 15 min	* green clip	Action item: Potential case settlements	Larry Knudsen	Possible approval of settlement in *NEDC et al v. DEQ et al* Multnomah Circuit Court case no. 070303342 and *NEDC et al v. DEQ et al,* Multnomah County Circuit Court case no. 080100974
1:00 90 min	E	Action Item: Morsman contested case	Jane Hickman, Leah Koss	
2:30 15 min		BREAK		
2:45 30 min	F	Action Item: City of Coburg waiver request	Neil Mullane, Mark Hamlin	
3:15 5 min	** yellow clip	Informational Item: City of Coburg petition	Representatives from the city of Coburg	
3:20 30 min	O	Informational Item: Recycled water internal management directive	Neil Mullane, Judy Johndohl and Ron Doughten	***Note: This item was swapped with Item G*
3:50 45 min	H	Action Item: Total dissolved gas waiver request	Neil Mullane, Gene Foster and Agnes Lut	
4:35		Recess until Friday morning		

Contact: Stephanie Clark (503) 229-5301
6/30/2009

Friday, June 19 -- *Regular Meeting*

Time	Item	Topic	Presenter/Status	Background
9:00 30 min	I	Public forum		
9:30 90 min	J	Action Item: PGE Boardman BART and regional haze rulemaking	Andy Ginsburg, Brian Finneran	
11:00 15 min		BREAK		
10:15 60 min	K	Informational Item: Update on budget and legislation	Greg Aldrich	
12:15 60 min	L	Lunch break		
1:15 45 min	M	Informational item: Composting Rules	Wendy Wiles, Charlie Landman	
2:00 30 min	N	Action Item: Hazardous waste omnibus rulemaking	Wendy Wiles, Scott Latham	
2:30 45 min	G	Action Item: Updates to CAFO memorandum of understanding	Neil Mullane and Ranei Nomura, DEQ, and Wym Matthews, ODA	***Note: This item was swapped with Item O*
3:15 30 min		Commissioner Reports	EQC members	
3:45		Adjourn		

THURSDAY - 6/18/09

(1)

Oregon Environmental Quality Commission

Public Forum
Request to Present Information

Agenda Item O or
Topic of Presentation RECYCLED WATER

JANET GILLASPIE - ACWA + DAN HANTHORN - CORVALLIS CITY OF
Name (Please print clearly)

537 SE. ASH SUITE 12 - PORTLAND. OR
Address

Affiliation | Email (optional) | Phone (optional)

(1)

Oregon Environmental Quality Commission

Public Forum
Request to Present Information

Agenda Item J or
Topic of Presentation

AUBREY BALDWIN, PEAC
Name (Please print clearly)

10015 SW Terwilliger Blvd
Address

PEAC | abaldwin@lclark.edu | 503-768-6924
Affiliation | Email (optional) | Phone (optional)

(2)

Oregon Environmental Quality Commission

Public Forum
Request to Present Information

Agenda Item J or
Topic of Presentation Deq decision on Boardman

Robin Everett
Name (Please print clearly)

1230 SE 26th Ave #6 Portland OR 97214
Address

Sierra Club robin.everett@sierraclub.org 503-238-0442x307
Affiliation Email (optional) Phone (optional)

(3)

Oregon Environmental Quality Commission

Public Forum
Request to Present Information

Agenda Item J or
Topic of Presentation

Jennifer Jones
Name (Please print clearly)

417 Lake Bay Ct. Lake Oswego, OR 97034
Address

Sierra Club
Affiliation Email (optional) Phone (optional)

(4)

Oregon Environmental Quality Commission

Public Forum
Request to Present Information

Agenda Item 1 or
Topic of Presentation Boardman

Sabine Hilding
Name (Please print clearly)

3311 S.W. Fairmount Blvd. PDX 97239
Address

Public
Affiliation | Email (optional) | Phone (optional)

(5)

Oregon Environmental Quality Commission

Public Forum
Request to Present Information

Agenda Item ____ or
Topic of Presentation

Roger Cole
Name (Please print clearly)

5505 E Evergreen Blvd Vancouver, WA 98661
Address

Sierra Club rogersail@comcast.net
Affiliation | Email (optional) | Phone (optional)

(6)

Oregon Environmental Quality Commission

Public Forum
Request to Present Information

Agenda Item J or
Topic of Presentation BOARDMAN POLLUTION

CESIA KEARNS
Name (Please print clearly)

113 NE THOMPSON ST. PORTLAND, OR 97212
Address

Affiliation | Email (optional) | Phone (optional)

(7)

Oregon Environmental Quality Commission

Public Forum
Request to Present Information

Agenda Item J or
Topic of Presentation Boardman BART rulemaking

Sarah Semon
Name (Please print clearly)

3203 SE Woodstock Blvd MS#902
Address

Citizen
Affiliation | Email (optional) | Phone (optional)

Please Sign In

Environmental Quality Commission Meeting
Portland, Oregon – Department of Environmental Quality
June 18-19, 2009

Name	Organization	Phone
Kaylin Burnett	Umatilla Chem Agent Disp Fac	(541) 564-7069
Anthony Barber	EPA	503-326-6890
Mark E. Hamlin	DEQ	503-378-5319
Mike Sheehan	for Mossmans	503-543-7172
Phil & Brigitte Mossman		
[illegible]	DEQ	
Dan Hanthorn	City of Corvallis	541-754-1757
Dan Feil	USACE	503 808-3943
Doug Baus	USACE	503 808-3995
David Wills	USFWS	360-604-2500
John Piccininni	BPA	503-230-7641
Ritchie Graves	NOAA Fisheries	503-231-6891
Shane Scott	Northwest River Partners	360 576-4830
Rudd Turner	USACE	503-808-3727
Kim Johnson	USACE	503-808-4060
Steve King	Power Resources Co-op	541-745-3812
Arya Behbehani-Divers	PGE	503-464-8141
Jim Trost	ODF	503-945-7448
Aubrey Baldwin	PEAC	503-768-6929
Michael Early	ICNU	503 239-9169
Jaren Mody	PGE	503-464-8156
Robin Bellanca	Cable Huston	503-224-3092
Mark Riskedahl	NEDC	503-750-5533
Sabine Hilding	public	503 226-2870
Roger Cole	Sierra Club	360-693-9131
Sarah Semon	student	

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Please Sign In

Environmental Quality Commission Meeting
Portland, Oregon – Department of Environmental Quality
June 18-19, 2009

Name	Organization	Phone

Please Sign In

Environmental Quality Commission Meeting
Portland, Oregon – Department of Environmental Quality
June 18-19, 2009

Name	Organization	Phone
Jennifer Jones	Sierra Club	
STEVE CORSO	PGE	
Rose Vickery	Sierra Club	
Nancy Hatch	myself	
Rachel Carson	Oregon PSR	
Allison LaPlante	PEAC	
Sara Gunderson	PEAC	
Robin Everett	Sierra Club	503-238-0442
Catherine Thomas	PSR	503-819-1170
Rick Ihnen	US Forest Service	
Anthony Barber	EPA	
Carla McLane	Morrow County	541 922 4624
Ray Jacobsen	ODA	
Wym Matthews	ODA	
CECIA KEARNS	SIERRA CLUB	503 238 0442 OR 303
ELIZABETH KAPLAN	SIERRA CLUB	503-841-5056
Rumi Nomura	DEQ	541-686-7799
Jim Krahn	Oregon Dairy Farmers Assn	503-780-9456

Please Sign In

Environmental Quality Commission Meeting
Portland, Oregon – Department of Environmental Quality
June 18-19, 2009

Name	Organization	Phone

Draft _X_
Approved ___
Approved with Corrections ___

Minutes are not final until approved by commission.

Oregon Environmental Quality Commission
Minutes of the Three Hundred and Forty-ninth Meeting

April 17, 2009

The Environmental Quality Commission held a public meeting beginning at 8:32 a.m. on April 17, 2009, at the Department of Environmental Quality Headquarters in Portland, Oregon.

The following members of the Environmental Quality Commission were present:

Bill Blosser, Chair
Kenneth Williamson, Vice Chair
Donalda Dodson, Member
Judy Uherbelau, Member
Jane O'Keeffe, Member

Item A: Adoption of the February 26, 2009, EQC meeting minutes
The commission thanked Stephanie Clark, assistant to the commission, and noted that the minutes have been very complete, detailed, easy-to-read with good information.
Moved: Vice Chair Williamson
Seconded: Commissioner O'Keeffe
The February 26, 2009, meeting minutes were adopted unanimously

Item B: Updates on the Umatilla Munitions Chemical Disposal Facility
Joni Hammond and Rich Duval, Department of Environmental Quality

Mr. Duval, DEQ chemical demilitarization program administrator, explained that this update is very similar to the February 2009, update, and the Umatilla facility is gathering the materials and data necessary to start its mustard agent disposal campaign. The facility has received many comments on the proposed campaign, and expects to receive more before the end of the first public comment period next week. At the close of the public comment period, DEQ will make a tentative decision on the direction of the mustard campaign and submit that information for an additional public comment period. Mr. Duval explained that the facility is prepared to start the mustard campaign as soon as all public comments are reviewed and addressed and the permit process has been finalized. This will likely occur in June 2009.

The commissioners asked what some of the most significant issues are in the context of the public comment period, and Mr. Duval answered that the concern of mercury emissions and the loss of an economic base are the major concerns being submitted at this time. Mr. Duval explained that the Army has a very good mercury emissions management system and there is not a risk for the community, and agreed that with the closure of the facility scheduled as soon as June 2010 the loss of an employer in this region is an issue. The Umatilla facility has been a major economic generator for the town, and when the facility is closed it will likely require an employment transition depending on who might purchase the location. The Army is responsible for the buildings on site, but does not intend to remove them after the facility's closure.

Commissioner Uherbelau noted that Morrow County recently contacted DEQ and the EQC regarding the Umatilla facility, and wondered what had happened from that initial correspondence. Deputy Director Hammond responded that Morrow County asked for an extension on the public comment period, but that it is the permitee's, not DEQ's, 60 day public comment period and DEQ will make a decision on how to proceed with the mustard campaign and submit that information for an additional 45 day public comment period, consistent with prior campaigns at the facility. She noted that DEQ met with Morrow County representatives last week who were satisfied with DEQ's response.

Mr. Duval said that the Morrow County letter also expressed concern that the Amy was not planning to test and characterize all agent containers, only the first 60, and that there might be a second type of mustard gas present that was a more significant health and exposure risk for the community. Mr. Duval explained that DEQ has been guaranteed that there is only one type of mustard agent in all of the containers, so the additional tests and characterizations of the agent are unnecessary and there is no increased risk to the community.

Item C: Director's Dialogue

Dick Pedersen, Department of Environmental Quality

Director Pedersen gave a verbal update to the commissioners regarding recent items of interest.

- The Pacific Environmental Advocacy Center has served a number of sources with an intent to sue notice regarding a federally-vacated boiler standard. The group states that this requires the sources to file individual applications to DEQ, but there is a lack of clarity at this time and the EPA is scheduled to release a new federal boiler standard to replace the one in question. This situation is not unique to Oregon, and DEQ is working with the sources on a best plan of action.
- The EPA has identified a number of schools across the country at which to conduct air toxics monitoring, and two are in Oregon. DEQ, while happy to see EPA focusing on this issue, has concerns regarding siting the monitoring locations as well as the short

timeframe, 60 days, in which the monitoring will be done. DEQ staff have talked to the schools, EPA and other stakeholders and will be helping to coordinate outreach and education opportunities as well as data.

- DEQ continues to work with stakeholders on three liquefied natural gas projects, but little has changed since February. The Bradwood landing project has suspended their process until a full resolution has been reached on several land use issues. There is a bill before the Oregon Legislature that would require a finding of need for natural gas and no adverse impacts before any liquefied natural gas projects could be started in Oregon. If passed, this bill would require EQC to do some rulemaking and is connected to other policy questions at the state level. The Jordan Cove project has not yet applied for any permits but is working with DEQ on possible land use issues.
- The Riverbend landfill has become a local debate in Yamhill County, as many neighbors oppose expansion and prefer a waste-to-energy option. The landfill's owner has presented a need for expansion and has demonstrated compliance with DEQ permit in the past, and we are working with county commissioners for any necessary permit modifications and to maintain good communications between all stakeholders.
- The port of Astoria has an annual need to dredge contaminated sediment as it flows to them from other communities and has previously been in violation of rules of where they are allowed to relocate the sediment. A recent decision to use the city of Warrenton's unused wastewater lagoon will convert this location into a regional facility without significant associated costs and the opportunity to apply for federal money. This will bring the port into compliance and solve their issue of where to locate the dredged sediment.
- The E-Cycles program has been very successful and will likely exceed its target of 12 million pounds of waste collected in 2009. The ban on e-waste going to landfills starts in 2010, so we are ramping up our outreach and will continue to provide technical assistance. There has been a lot of legislative interest in the program and it has launched more discussion around product stewardship bills and programs.
- DEQ's number one priority is responding to emergency spills, and we get about 2300 notifications from the Oregon emergency response system every year. Only a small percentage of these notifications require a full-scale mobilization, and most require smaller follow-up by staff. We recently updated our emergency response contracts and are moving toward increased environmental protection with this program.
- DEQ received a request from the Army Corps of Engineers for a waiver of the total dissolved gas standard. Their current waiver expires August 31, 2009, and they would like a new waiver to cover the fish passage season on 2009 through 2012. All public comments have been reviewed and DEQ water quality staff will submit a report for EQC review and decision at the June, 2009, meeting.
- The DEQ lab received funding in 2007 to monitor for toxics in the Willamette River through in-stream and fish tissue sampling. This project greatly expanded the lab's

technical abilities and staff were able to monitor for over 250 pollutants. This is a great benefit to DEQ and the state of Oregon.

- The Office of Compliance and Enforcement offers some violators the option to complete supplemental environmental projects in addition to a reduced fine. These projects are only available for lower risk violations and are meant to improve the environment in the violator's community. It is also a great way for smaller projects to leverage matching funds. Vice Chair Williamson commented that OWEB has a small grants fund that could match up to $5000 for stream repair projects.
- Lehman Hot Springs, a private resort near the Blue Mountains, had an overflow of its wastewater lagoon, and is working to pump out the lagoon to prevent total failure. This facility has had other wastewater issues in recent years but has not sufficiently responded to DEQ's requests and orders to properly fix the lagoon. The lagoon overflow is not a health issue, and much of the effluent is runoff from the snow melting in the area, but it is a concern and DEQ is working with local and federal officials to solve the problem.
- Director Pedersen is the co-chair of the new Oregon Way advisory group, which will advise the governor on finding ways to leverage federal stimulus money to create innovative, green and sustainable jobs through new projects across Oregon. There are over 500 different streams of funding through the federal stimulus package, and so the group is working to investigate and implement projects and coordinating state agencies to disperse money as soon as it is available and otherwise expedite the process.
- DEQ is received several pots of money from the federal stimulus package to distribute to local communities. The most significant grants came through the Clean Water Act state revolving fund. The program has received over $700 million worth of project applications for $45 million available. Staff have been in close communication with federal congressional staff and local communities and are prepared to disperse the money as soon as it is available. Other smaller amounts of federal stimulus money will go towards water planning projects, clean diesel retrofits and leaking underground storage tanks.
- The Office of Communications and Outreach launched a new e-newsletter called "Oregon Environment", and this has led to a big jump in visits to our Web site and subscribers to our listserv.
- There are many updates on climate change legislation at the national and state level.
    - EPA plans to announce an endangerment finding for carbon dioxide today, which could make CO2 a regulated pollutant under the Clean Air Act.
    - The federal Clean Energy and Security Act has generated a lot of interest and many states are providing comments.
    - Oregon's cap and trade bill has changed significantly since it was first introduced, and has a second hearing scheduled for next week. Various stakeholder groups have forwarded many options regarding the cap element of the bill, which remains very controversial.

- A greenhouse gas reductions bill includes a new low-carbon fuel standard, and Andy Ginsburg, Air Quality Division administrator, is working with legislators to make sure they understand the full scope of the bill.

The commission took a recess for approximately 20 minutes.
Upon returning from their recess, Director Pedersen noted that the EPA just announced its endangerment finding for greenhouse gas, and that it will now regulate greenhouse gases under the Clean Air Act.

Item D – Budget and legislative update
Greg Aldrich and Jim Roys, Department of Environmental Quality

Mr. Aldrich, DEQ government relations manager, gave an overview of the Oregon Legislature's timeline and presented information on bills and policy option packages of interest to DEQ. He noted that the state's budget deficit continues to grow, and that the May 15th budget forecast will be the starting point for the Legislature to draft its budget in early June and close the session by June 30th.

Mr. Aldrich also covered the 30 percent reduction options requested by Legislative Fiscal Office. The Legislative Fiscal Office asked all state agencies to prepare and present their reduction option lists as part of their Ways and Means committee meetings.

Chair Blosser asked what process and philosophies were applied for the reduction options, and Director Pedersen explained that all programs were ranked by their level of effectiveness in protecting environmental and public health, whether the program is federally mandated and designated, and programs that provide the best outcomes. Then programs were also assessed in light of cross-program priorities and implications. Director Pedersen also noted that the reduction options only refer to general and lottery funds, and some programs would not be affected since they do not use any of these funds. Others, like many water programs, are largely funded by general and lottery monies and would appear to be disproportionately affected without a cross-program understanding.

Commissioner Uherbelau asked if the 30 percent reduction options were based on past revenue forecasts or were projections. Mr. Aldrich and Mr. Roys explained that the reduction options represented a worst case scenario, and that it would be very unlikely for the Legislative Fiscal Office to adopt all the proposed reduction options. Director Pedersen added that that office has the option to take up to 30 percent but does not have to do so equally across all agencies, so they may elect to adopt five percent from one agency and 30 percent from another agency.

Commissioner Dodson noted that some reductions would be necessary and it seems like the staff will feel the pressure of doing the same work with fewer resources. Director Pedersen agreed that this is a major concern, and many reduction options were chosen to make sure that programs are sufficiently staffed and able to effectively do their work.

Mr. Aldrich stated that the Ways and Means presentation was a positive experience, with four days of testimony from Director Pedersen and one day of public comment. Nineteen people commented, and others sent letters to the committee, with the majority of comments in support for some or all of DEQ's work. Mr. Aldrich explained that the Ways and Means committee members will now hold statewide public meetings to gather feedback, and we will notify our stakeholders of these dates and locations. A work session will follow these meetings and inform the draft budget, expected in June.

Mr. Aldrich spoke about several House and Senate bills of interest to DEQ, and noted that the legislative team is currently tracking over 200 bills that would have some connection to DEQ. He also noted that several bills that were introduced by DEQ, like the product stewardship bill, have stalled in committee but industry and political representatives are introducing similar bills that are likely to pass. This means that DEQ could have new roles and responsibilities or otherwise feel the effects of these bills.

Director Pedersen added that Senate Bill 30 has been signed and is an ethics reform bill that would require annual, instead of quarterly, disclosure reports from commissioners and state agency directors.

Mr. Aldrich closed by saying that he would return for the June meeting with a much more concrete understanding of what legislation has passed and the status of the state budget.

Commissioner Dodson noted that the acknowledgement from the Ways and Means committee indicate that the presentation was very well-organized and the content of the presentation was terrific. Director Pedersen thanked her for this comment, and specifically thanked Greg Aldrich, Melissa Aerne, Christine Svethkovich and Margaret Oliphant as representatives of the legislative team for their hard work in crafting the Ways and Means presentation documents.

Mr. Roys, DEQ budget manager, presented the first annual financial report, as requested by the commission to assist in meeting key performance measures related to finance. He stated that he will present to the commission at least four times in each biennium, and hopes to gather feedback to improve the annual financial report.

Mr. Roys explained that the report has three sections: audits, compliance and key financial information. He stated that the audits are generally good, with no programs needing corrective

action or reportable conditions. Mr. Roys also stated that a series of audits is planned for 2010 and beyond, and he will bring information from those processes to commission meetings as they occur.

Mr. Roys said that compliance and monitoring is done by several staff members in the Business Services Division, and their day-to-day work makes it possible for DEQ to operate successfully.

Mr. Roys explained key financial information, as represented by various stoplight charts. A red stoplight requires immediate corrective action and reporting every three months to assess the success of the corrective actions, yellow is caution and green is good to continue. Director Pedersen commented that the Onsite program is a good example of this system working, and it has helped DEQ to manage staff resources to avoid a financially precarious situation after a downturn in construction in Oregon.

Commissioners asked specific questions about the report and the meaning of the data, and Mr. Roys noted that a number of programs could be ranked as yellow and red in the next few years because of larger budget and economic concerns that require careful watching and corrective actions.

Director Pedersen added that he would like to spend time with the commission after the end of the legislative session to discuss the future challenges for DEQ and what role the commission will play in those conversations and actions. Vice Chair Williamson and Commissioner Uherbelau agreed, and noted that future financial reports should reflect the he fundamental shifts in thinking and operations that will be required of DEQ, and all other governmental agencies, in order to thrive.

The commission recessed for lunch and executive session at approximately 12:10 p.m. and returned to the public meeting at approximately 1:10 p.m.

Item E: Public Forum

The commission announced its intent to hear public comment on the state revolving fund temporary rulemaking and Wapato Lake during their respective agenda times, and members of the public agreed to comment at those times rather than during public forum.

- **Karyn Jones – representing self, GASP, the Oregon Wildlife Federation, Sierra Club and the Government Accountability Project.**
    - Ms. Jones presented information regarding the Umatilla disposal facility, noting that a consultant evaluated the stockpile of mustard agent ton containers and believes that 79 percent of the mustard agent ton containers at Umatilla appear to be at risk for mercury contamination. She expressed her concern related to this

finding, and also that the Army has submitted requests for proposals to investigate alternative disposal technologies at other disposal facilities with similar issues to Umatilla but none have been submitted in Oregon. Commissioner Uherbelau asked for clarification, and Ms. Jones explained that her main concern is that the Umatilla facility will incinerate the mustard agent ton containers that could be contaminated with mercury and not evaluate alternative technologies that are being used at other disposal facilities.

- **Kathryn VanNatta – representing the Northwest Pulp and Paper Association.**
  - Ms. VanNatta provided a written copy of her testimony given during the DEQ Ways and Means meetings last week. She highlighted the notes for the committee and discussed the Northwest Pulp and Paper Association's positions related to the 2009-11 budget and DEQ's work, mostly related to their opposition of fees related to air quality programs and cap-and-trade or climate change programs. Ms. VanNatta stated that the proposed fees should not be charged on biomass created from wood waste and DEQ should try to incentivize businesses, organizations and people who use non-fossil fuel sources and that forest products are biomass and non-fossil fuels. She stated that the pulp and paper industry is ready to engage in conversations how the industry will evolve and how the industry will do business as the economic conditions in Oregon worsen.

Item F: Clean Water Action state revolving fund temporary rulemaking
Neil Mullane, Judy Johndol and Rick Watters, Department of Environmental Quality

With agreement from the commission, members of the public interested in commenting on the temporary rulemaking were invited to be part of the item rather than speak during public forum.

Janet Gillespie, representing the Oregon Association of Clean Water Agencies, spoke first and noted that the Oregon Association of Clean Water Agencies supports the rulemaking. She invited Eric Quinn, the public works director for the city of Riddle, to speak. Mr. Riddle explained that he was a member of the total maximum daily load standards advisory group for the Umpquaa basin four years ago, and used that opportunity to gain knowledge that would help Riddle. The city, in an attempt to increase water quality, developed some solutions, but found that they that would be prohibitively expensive for their very small community. The federal stimulus package offers a 75 percent forgiveness option for small communities, which provides Riddle the opportunity to pursue the project and survive economically. Ms. Gillespie stated that the Oregon Association of Clean Water Agencies supports sustainable wastewater infrastructure and will partner with several organizations for planning and best practices, and urges the commission to adopt these temporary rules proposed by DEQ.

Milo Mecham, representing the city of Coburg, presented the commission with an amendment to the proposed rules that would allow Coburg to access the federal stimulus money through the state revolving fund. Mr. Mecham explained that Coburg is believed to be the largest community along I5 without sewers, and has about 1000 people all on septic tanks. The city would like to create a new system that would reuse water for beneficial use in agricultural applications. The system would cost about $24 million for their community of 1000 residents and the city needs financial assistance to make this happen. Mr. Mecham explained that the federal act stipulated that the stimulus money could not be used for projects that had been started before Oct 1, 2008, which would unfortunately exclude Coburg. The city of Coburg was able to secure a loan for a small portion of the system's full costs, and would use the additional stimulus money to complete the project based on the gap in loan funding. The commissioners asked Mr. Mecham questions regarding some technical uses of language within the proposed amendment and engaged in a brief discussion regarding the legality and possibility of funding Coburg with stimulus money.

Larry Knudsen, DEQ's legal counsel, suggested that the commission hear from DEQ staff on this issue, since they might be able to clarify Coburg's eligibility based on the act's criteria.

Neil Mullane, DEQ Water Quality Division administrator, gave an overview of the federal Clean Water Act and its relation to the state revolving fund, as well as the additional stimulus money available through the state revolving fund in 2009. He explained that DEQ traditionally receives about $10 million annually in capitalization grant from EPA for the state revolving fund, and that we will receive approximately $44 million in additional stimulus funds for the state revolving fund this year but this additional funding has specific requirements that would preclude Coburg from applying. Mr. Mullane explained that Coburg's loans were signed prior to October 1, 2008, which was the cutoff date established in the federal act that controls the stimulus money. Mr. Mullane also explained that water quality staff have been working with communities since the announcement of this potential money in December, 2008, and are now preparing the intended use plan with a list of prioritized projects that will be sent to the EPA. With their conditional approval, loans using stimulus money could be disbursed in June.

Judy Johndohl, DEQ Water Quality Division community and program assistance manager, explained that the proposed temporary rulemaking would also reduce the public comment period from 30 to 14 days to expedite the dispersal of stimulus funds. This is a DEQ requirement, not a federal requirement, so there is no conflict with EPA regulations. Ms. Johndohl also explained that the current state revolving fund program does not allow for grants and principal forgiveness provisions outlined in the federal act, so this temporary rulemaking would also establish principal forgiveness for either 75 or 50 percent of a loan based on the size of the applicant community. Ms. Johndohl stated that a workgroup met to decide the best use of the stimulus funds, and determined that small communities of fewer than 5000 residents would be eligible for

75 percent principal forgiveness on a zero percent interest loan and all other communities would be eligible for 50 percent principal forgiveness on a zero percent interest loan. She noted that the act dictates all loans made before September 1, 2009, have a cap of $5 million, but that amount could increase if other funds are still available. Ms. Johndohl also stated that 20 percent, or about $8 million, of the stimulus money must be used for green and environmentally innovative projects.

Mr. Mullane explained the next steps for the commission, and asked that they approve the staff recommendation to adopt the temporary rules for the state revolving fund. He noted that temporary rules expire in six months, so he and the staff would return at a later meeting to inform the commission on the approved projects, pass additional rules if necessary and follow through on all state and federal reporting requirements.

The commissioners discussed the proposed temporary rules and asked for clarification on several points. Commissioner Uherbelau expressed hesitancy in adopting the temporary rules as proposed due to some inconsistency in rule language and the possibility it contradicts with existing rules in division 54.

Motion: Adopt the proposed temporary rule revisions to OAR Chapter 340, Division 54, as presented in attachment A and the findings in attachment B.
Moved: Vice Chair Williamson
Seconded: Commissioner O'Keeffe
Commissioner Uherbelau abstained, with all other commissioners voting to support the motion. The motion passed.

Item G: Compost update
With agreement from the presenters, the commission tabled this item to a later meeting.

The commission recessed for approximately 15 minutes.

Item J: Informational update on Senate Bill 737
Neil Mullane, Jennifer Wigal and Cheryl Grabham, Department of Environmental Quality

Cheryl Grabham, DEQ water quality standards and assessment staff, gave an update on the progress and content of the project mandated by the 2007 Oregon Senate Bill 737. Ms. Grabham explained that the project, known as P3 for persistent priority pollutants, has been developed by a collaborative group of stakeholders and extensive public involvement at all steps of the process.

Ms. Grabham explained that the original draft list had over 1000 pollutants, and the current draft list has been narrowed to fewer than 200 and is organized by type. These pollutants will be

monitored by testing the effluent from the 52 largest municipal wastewater treatment plants in Oregon and managed if found in concentrations above a determined level. The commissioners discussed some details of the list and DEQ's role in monitoring and treatment with Ms. Grabham.

Jennifer Wigal, water quality standards and assessment manager, noted that the comments are in general support of the project and for toxics reduction and there is some misunderstanding of the purpose of the draft list. She said that there is also some criticism of the membership of the science and methodology workgroup, mostly from industry representatives commenting on a lack of pesticide experts. Ms. Wigal explained that many comments requested the addition or deletion of specific pollutants from the draft list and that the draft list and other elements of the project will likely be modified after review from the Legislature in June and before the project development is completed in June 2011.

Ms. Grabham and Ms. Wigal stressed that the project is for toxics reduction, and is not a complete ban or elimination of the pollutants and products identified in the draft list.

Commissioner Dodson noted that this project is an opportunity for the commission and DEQ to be more proactive regarding human health concerns and evaluate upstream actions that could reduce the toxics found in wastewater effluent as well as working closely with the public health agencies. Ms. Wigal agreed and commented that with the draft list it gives DEQ the opportunity to do outreach on consumer choices that would affect what pollutants are found in wastewater effluent. Director Pedersen also stated that the Oregon Department of Human Services and the Oregon Environmental Council are working on opposite ends of this issue and DEQ is essentially in the middle with policy development and educational opportunities for all Oregonians. Mr. Mullane and Director Pedersen both acknowledged the Oregon Association of Clean Water Agencies and the 52 affected wastewater treatment plants for their active cooperation and role in this project beyond the scope of Senate Bill 737.

Chair Blosser left the meeting and assigned Chair duties to Vice Chair Williamson at 3:40 p.m.

Item K: Wapato Lake and blue-green algae blooms update
Neil Mullane and Gene Foster, Department of Environmental Quality; Ray Jaindl, Department of Agriculture; and Gail Shibley, Department of Human Services

Neil Mullane, DEQ water quality administrator, gave background information on the Wapato Improvement District and the blue-green algae bloom observed at Wapato Lake in July 2008. He noted that no water quality violations were found, and that low oxygen levels and high temperatures as well as high phosphorus levels in the Tualatin River likely caused the bloom.

Mr. Mullane also explained the U.S. Geological Survey is analyzing summer 2008 data from this basin and will prepare a report that DEQ will use to assess what happened.

The commissioners discussed the information presented by Mr. Mullane, and he clarified that DEQ does not require the Wapato Improvement District to hold a water quality permit based on several exemptions under the federal Clean Water Act. As such, he explained, this was not an issue that DEQ was able to respond to with enforcement or other actions.

Gail Shibley, Oregon Department of Human Services Office of Public Health Systems administrator, distributed a handout with additional information related to the algae bloom and discussed her department's current and future algae bloom management plans. She explained that the Oregon Department of Human Services received a grant from the Center for Disease Control and will take the lead on coordination campaigns for algae blooms in the 2009 season.

Mr. Mullane stated that DEQ also plans to follow up with the Wapato Improvement District and is working with them on a management plan which would include strong communications and outreach connections in case other unusual algae events are seen. The Joint Water Commission has agreed to do some sampling in this basin area and will give the data to DEQ. Mr. Mullane added that the district was developed for agricultural use, and farmers have struggled to remain viable and successful in the area. The U.S. Fish and Wildlife Service began buying land from farmers in 2000 and plans to continue this practice of buying land and reverting it back to wetlands.

Commissioner Uherbelau urged DEQ to be proactive on algae blooms and possibly partner with educational facilities for increased monitoring in this, and similar, situations.

Gene Foster, DEQ watershed manager, explained the science behind algae blooms. He also explained that DEQ works to identify where algae blooms are occurring on an annual basis and create coordinated responses to manage and reduce the frequency and severity of the blooms when possible. Part of DEQ's responsibility is to take control of water quality management issues and violations and it is often unclear what the causes of the blooms are and if there are natural or external factors that are causing increased temperatures and nutrient loading that produce blooms.

Ray Jaindl, Oregon Department of Agriculture Natural Resources Division administrator, stated that his department is working with DEQ to identify who is the primary authority in evens like algae blooms. He explained that the farm-based issues are definitely related to agriculture and fall to his authority, but the district is unclear if this is a strictly agricultural issue. A major concern is preventing duplication of services, and ensuring cost-effective uses of state agencies and their funding. Commissioner Dodson noted that a farmer testified that he saw changes in his

crops due to the suspected algae bloom, and asked who would be responsible for the viability and food safety of the crops. Mr. Jaindl responded that it would be the responsibility of the farmer and distributor to ensure quality of product, and that the Oregon Department of Agriculture does provide crop protection and food safety guidance to farmers through the Food Safety Division.

The commission invited Brian Waganer, representing the Tualatin Riverkeeper organization, to provide public comment. Mr. Waganer noted that some bodies of water in Oregon are very well managed, but this is not one of them. He stated the question of statutory authority is not applicable, and that DEQ has a regulatory obligation to intervene in this type of event based on laws that prevent anyone from discharging pollution into any water source in the state. He explained that the Tualatin Riverkeepers see the blue-green algae bloom at Wapato Lake in June 2008 as a failure of the Department of Agriculture to enforce the water quality standard for the Tualatin River and would like the commission to state it as such and note the responsibility of the Department of Agriculture to protect downstream agricultural interests in this district.

The commission thanked Mr. Waganer for his comment, and Ms. Shibley noted that the Oregon Department of Human Services is working to convene a joint meeting for the involved parties and develop better understanding and solutions for similar algae bloom events. Vice Chair Williamson noted his support for an inter-agency workgroup on the issue of blue-green algae.

Item L: Commissioner Reports

- Commissioner Uherbelau inquired about the coal ash pond at the PGE Boardman plant, changes to the Onsite program and the status of the Oregon pharmaceutical take-back program.
    - Director Pedersen responded that staff will research and respond to the inquiries about the coal ash pond and the Onsite program, and that the drug take-back bill is in process with the Oregon Legislature.
- Commissioner O'Keeffe noted her apologies if anyone received a recent spam email from her address, the issue has been fixed. She also thanked Vice Chair Williamson for his email forwards of useful articles regarding climate change.
- Vice Chair Williamson noted that OWEB is facing the same budget issues as the state of Oregon, and will likely support fewer watershed councils but do so at a higher monetary level and encourage smaller councils to combine into larger collective councils.

Vice Chair Williamson adjourned the meeting at 4:54 p.m.

State of Oregon
Department of
Environmental
Quality

Umatilla Chemical Demilitarization Program
Status Update
Environmental Quality Commission
June 18, 2009

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

As of May 19, 2009, 217,969 munitions have been destroyed, which represents 99% of all Umatilla munitions and bulk containers and 37% percent of the original Umatilla stockpile by agent weight, and 100% of the nerve agents.

HD Operations

The UMCDF began the VX-to-HD changeover activities for the start of Mustard ton container operations on November 6, 2008. There are 2,635 HD ton containers in the UMCD stockpile. This represents 1 percent of all UMCD muntions and bulk containers and 63 percent (by agent weight) of the original stockpile.

The permit modifications necessary for HD processing are nearing completion. The agent trial burn remains to be completed, and should be issued before the end of May.

At the April Commission meeting, testimony was received during Open Forum regarding alternative treatment technologies being considered for munitions at the Utah and Alabama demilitarization facilities due to their high mercury content. Our investigation has confirmed the solicitation of alternate technologies for leaking and highly degraded projectiles and mortar rounds that the Army has deemed to exhibit an excessive risk to plant personnel and not suitable for manual processing. The mercury content of these munitions is not known. Additional information will be available during the June Commission meeting.

GB Operations:

GB munitions/bulk items processing was completed July 2007. GB munitions/bulk items comprised 21.4% of the total Umatilla stockpile (by agent weight). The UMCDF destroyed 155,539 munitions and bulk containers filled with 2,028,020 pounds of GB nerve agent. This represented 70.5% of all Umatilla munitions and bulk containers and 21.4% of the original Umatilla stockpile (by agent weight)

The only remaining GB-related waste is used PFS carbon. All other GB secondary wastes have been treated.

VX Operations:

VX munitions processing was completed November 5, 2008. VX munitions/bulk items comprised 9.8% of the total Umatilla stockpile (by agent weight). The UMCDF destroyed 14,519 VX rockets and warheads, 1 VX ton container, 156 VX spray tanks, 32,313 155mm VX projectiles, 3,752 8" VX projectiles, and 11,685 VX mines filled with over 720,000 pounds of agent.

Except for carbon, all VX-related wastes previously stored in J-Block igloos have been treated. Secondary wastes produced during changeover are being treated as generated.

Other UMCDF Chemical Demilitarization Program News

UMCDF PMR Activity (March 23, 2009, through May 20, 2009):

SUBMITTALS *(09-014 was also approved during this period)*		
PMR#	**Title**	**Submitted**
UMCDF-09-014-PFS(1R)	PFS Operating Condition for Sulfur-Impregnated Carbon (SIC) (a/k/a Mercury Monitoring)	03/23/09
UMCDF-09-018-PAS(1N)	High-Moisture Automatic Waste Feed Cut-Off	04/21/09

APPROVALS/ACCEPTANCES			
PMR#	**Title**	**Received**	**Decn**
UMCDF-09-015-WAST(1N)	Application Clarification for Brine Management	03/05/09	03/25/09
UMCDF-08-010-DMIL(3TA)	Depressurization Glove Box Miscellaneous Unit	08/19/08	04/22/09
UMCDF-08-031-PFS(2)	PFS Carbon Filter Media (a/k/a use of SIC in PFS)	11/26/08	04/16/09
UMCDF-08-036-WAP(2)	Mustard (HD) Waste Analysis Plan (WAP) Update	12/17/08	04/30/09
UMCDF-09-014-PFS(1R)	PFS Operating Condition for SIC (a/k/a Hg Monitoring)	03/23/09	05/14/09
UMCDF-08-030-DMIL(3TA)	Bulk Drain Station Modifications	11/26/08	05/20/09
UMCDF-09-013-WAP(2)	Analysis of HD Ton Container Heel	02/25/09	05/20/09

IN PROCESS: The following PMNs and PMRs are under Department review *(includes 09-018, which was also submitted during this period)*				
PMR#	**Title**	**Received**	**Public Comment Period Close**	**Target Decision/ Review Date**
UMCDF-05-034-WAST(3)	Deletion of the DUN and Addition of the CMS	10/25/05	12/24/05[1]	TBD
UMCDF-07-006-DFS(3TA)	Minimum Temperature Limit Change on the DFS	01/16/07	04/25/08[3]	TBD
UMCDF-07-005-MISC(2)	Condition II.M-Liability Insurance Requirement Changes	01/30/07	04/02/07	07/15/09
UMCDF-08-037-MISC(1N)	Annual Procedures Update	05/29/08	N/A	TBD
UMCDF-08-025-MISC(1N)	Redline Annual Update-DMIL/MDB/ Misc Systems	09/08/08	N/A	TBD
UMCDF-08-028-MISC(1N)	Redline Annual Update for General/ PAS Systems	11/26/08	N/A	TBD

IN PROCESS: The following PMNs and PMRs are under Department review *(includes 09-018, which was also submitted during this period)*				
PMR#	Title	Received	Public Comment Period Close	Target Decision/ Review Date
UMCDF-09-001-MISC(1N)	Redline Annual Update-Furnace System	01/21/09	N/A	TBD
UMCDF-09-003-MISC(3)	Resubmittal of HD ATBP	02/26/09	04/21/09[1]	05/26/09
UMCDF-09-010-MISC(1N)	Redline Annual Update for the BRA, Tank, and MISC Systems	03/17/09	N/A	TBD
UMCDF-09-018-PAS(1N)	High-Moisture Automatic Waste Feed Cut-Off	04/21/09	N/A	06/01/09

[1] Initial (permittee) public comment period.
[2] Additional public comment period required/opened due to incompleteness of original PMR submittal
[3] Department (draft permit) public comment period.

UMCD PMR Activity: None for the period January 28, 2009, through March 23, 2009

Significant Events at Other Demilitarization Facilities

The CMA marked the final destruction of all VX nerve agent to be destroyed by CMA disposal sites on December 24, 2008, with the elimination of ANCDF's final land mine. The remaining VX at Blue Grass will be destroyed by ACWA. To date, 58.9 percent of the national chemical agent stockpile tonnage has been destroyed.

Anniston Chemical Agent Disposal Facility (ANCDF), Alabama
The ANCDF has destroyed 56.2 percent of its total stockpile (by agent weight) and is currently undergoing agent changeover activities for the HT/HD 4.2-inch mortars.

A ten-person delegation from Colorado visited May 19 to view a simulated demonstration of a linear projectile mortar disassembly machine, a series of robotic arms that unpack explosives from live rounds. Collected data and experience from testing and evaluation in Anniston will help Pueblo Chemical Depot safely process the mustard-filled munitions there.

Pine Bluff Chemical Agent Disposal Facility (PBCDF), Arkansas
The PBCDF has destroyed 27.1 percent of its total stockpile (by agent weight). The PBCDF started HD ton container processing December 7, 2008, and had processed 494 ton containers as of May 18, 2009. PBCDF was authorized May 15, 2009, to increase its agent feed rates from 50 to 75 percent of the permitted maximum for each furnace.

Tooele Chemical Agent Disposal Facility (TOCDF), Utah

TOCDF agent disposal is 79.6-percent complete.

Processing of low-heel, low-mercury (≤ 1 ppm of mercury) ton containers resumed August 25, 2008. High-heel ton container operations utilizing the heel transfer system began October 3, 2008. As of May 17, 2009, 3,484 ton containers had been treated.

Three sulfur-impregnated carbon (SIC) filters are being installed as part of an expansion to the existing pollution abatement system. The SIC filters will be used to capture mercury that may remain after incineration of high-mercury (> 1 ppm mercury) mustard mortars and ton containers. Because the PFS has not been completed and the TOCDF has nearly completed its low-mercury ton container processing, it is preparing to change over to processing mustard mortars.

Newport Chemical Agent Disposal Facility (NECDF), Indiana

Newport has completed agent disposal operations. It is the third site to complete operations, following JACADS in 2000 and ABCDF in 2006. Closure activities will occur over an 18- to 24-month period. NECDF is still in Phase 1 closure activities, which includes demolition of the chemical agent transfer system glove boxes and flushing hydrolysate tank. In-place decontamination of the reactor bay equipment is essentially complete and removal of agent piping has started.

Pueblo Chemical Agent Destruction Pilot Plant (PCAPP), Colorado

Neutralization followed by biotreatment will be used to destroy the Pueblo 2,611-ton HD stockpile (artillery and mortar projectiles). The overall design is complete and some construction is under way, but site-specific equipment (e.g., munitions treatment unit, projectile mortar disassembly machine) is still being designed and fabricated in preparation for testing this fall. Target date for startup is 2014.

Because of continuing schedule delays, the State of Colorado issued a hazardous waste compliance order in June 2008 mandating the destruction of chemical weapons at Pueblo by 2017, which is four years ahead of the Department of Defense's latest schedule for destruction at the site, but matches congressional mandates that were put in force less than a year ago. The order indicates the Pueblo Chemical Depot has long been out of compliance with state hazardous waste regulations that limit the amount of time hazardous waste may be stored. The Army is disputing the order.

The permit issued by the state October 17, 2008, allows the project to build the remainder of the plant.

Blue Grass Chemical Agent Destruction Pilot Plant (BGCAPP), Kentucky
Neutralization followed by supercritical water oxidation (SCWO) will be used to destroy the Blue Grass 523-ton stockpile or nerve and mustard agents. Chemical agent operations are slated to begin 2017 and to be completed by 2023.

The design work is 93-percent complete and should be final in 2010.

Blue Grass Chemical Activity has had two leaking mustard projectiles in separate igloo magazines.

Three GB ton containers (Operation Swift Solution), representing 0.2% of the stockpile have been neutralized. When completed, the operational facilities will be shut down and the temporary structures and equipment will be shipped back to APG.

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

ACWA –Assembled Chemical Weapons Alternatives, agency of the Army overseeing operations at Pueblo, CO (PCAPP) and Bluegrass, Kentucky (BGCAPP)

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

APG–Aberdeen Proving Grounds, Edgewood, Maryland

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

BDS – Bulk Drain Station – the used in the Munitions Demilitarization Building to weigh, hole punch and drain liquid HD from ton containers

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

BGCAPP – Blue Grass Chemical Agent Destruction Pilot Plant, new designation for BGCA.

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/)

CMP – comprehensive monitoring program – a program designed to conduct sampling of various environmental media (air, water, soil and biota) required by the EQC in 1997 to confirm the projections of the Pre-Trial Burn Health and Ecological Risk Assessment.

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/)

CWC Treaty – Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction. Ratified by the U.S. Senate on April 24, 1997.

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

DAL – discharge airlock – a chamber at the end of MPF used to monitor treated waste residues prior to release.

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

HTS – Heel Transfer Station – the part of the HD bulk drain station that contains the water and air sprays that used to solubilize solid heels in ton containers for purposes of sampling and meeting waste feed limitations

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

NECDF – Newport Chemical Agent Disposal Facility, located at the Newport Chemical Depot in Indiana

NRC – National Research Council

ORR – operational readiness review – a formal documented review process by internal and external agencies to assess the overall readiness of UMCDF to begin a new agent or munitions processing campaign.

PBCDF – Pine Bluff Chemical Agent Disposal Facility, located at the Pine Bluff Arsenal in Arkansas

PCAPP – Pueblo Chemical Agent Destruction Pilot Plant, new designation for PUCDF.

PFS – the carbon filter system installed on the pollution abatement systems of the incinerators used for chemical agent destruction

PICs – products of incomplete combustion – by-product emissions generated from processing waste materials in an incinerator

PMR – permit modification request

PMN – permit modification notice

PUCDF – Pueblo Chemical Agent Disposal Facility, located at the Pueblo Chemical Depot in Colorado

SAP – sampling and analysis plan

SETH – simulated equipment test hardware – "dummy" munitions used by UMCDF to test processing systems and train operators before the processing of a new munitions type. SETH munitions are often filled with ethylene glycol to simulate the liquid chemical agent so that all components of the system, including the agent draining process, can be tested.

TAR – Temporary Authorization Request

TOCDF – the Tooele Chemical Agent Disposal Facility, located at the Deseret Chemical Depot in Utah

UMCD – Umatilla Chemical Depot

UMCDF – Umatilla Chemical Agent Disposal Facility

WAP – waste analysis plan –a plan required for every RCRA permit which describes the methodology that will be used to characterize wastes generated and/or managed at the facility.

WDC – Washington Demilitarization Company, LLC – the Systems Contractor for the U.S. Army at UMCDF.

VX – a nerve agent

State of Oregon
Department of Environmental Quality Memorandum

Date: June 17, 2009

To: Environmental Quality Commission

From: Dick Pedersen, Director

Subject: Agenda Item C, Informational Item: Director's Dialogue
June 18-19, 2009 EQC meeting

Grand Opening of the Clean Water Services' Nutrient Recovery Facility
Last week, I attended the grand opening of a new facility in Tigard that is the first in the nation to recycle wastewater into commercial fertilizer. The technology was developed by OSTARA Nutrient Recovery Technologies Inc. and is being used at Clean Water Services' Durham Advanced Wastewater Treatment Facility to create fertilizer as a value-added product after treatment at the facility. Robert F. Kennedy Jr., board member of OSTARA, also attended, and the event was a successful demonstration of innovative technologies being developed and implemented here in Oregon.

Oregon E-Cycles
Oregon E-Cycles collected 4.94 million pounds of TVs, computers and monitors for recycling since January 1, 2009. 55.7 percent were TVs, 33.3 percent monitors and 11 percent computers. 8,938 units were diverted for reuse instead of recycling. Although all three manufacturer-run programs and the state contractor program are expected to exceed their respective shares of the minimum12.2 million pounds of recycling required statewide in 2009, they all must continue to collect and recycle electronics year-round. DEQ is working with manufacturers to ensure ongoing service and to address questions about disparities in collections among programs. DEQ has established 21.46 million pounds of electronics as the minimum statewide collection required for Oregon E-Cycles in 2010, which is an increase to 5.8 pounds per capita instead of 2009's 3.3 pounds per capita. Manufacturer-run programs must submit plans to DEQ for approval by July 1 of this year.

DEQ is also working with landfill operators and other stakeholders to implement the ban on disposal of TVs, computers and monitors that takes effect January 1, 2010. Permitted transfer stations, material recovery facilities and landfills will need to develop programs to prevent accepting these electronics for disposal.

Stimulus Funds
The Water Quality Division received $45 million in a stimulus-funded conditional grant from EPA for the Clean Water Act State Revolving Fund. Neil Mullane and the entire water quality staff have been working to complete and submit the intended use plan to EPA, which would then

review the plan and give approval for us to disperse funds. With EPA approval, we expect to begin granting the money to successful applicants within two weeks. DEQ has also been working closely with the applicants and stakeholders to make sure that all administrative conditions have been met and that communications with communities and stakeholders are consistent and thorough.

Oregon was awarded $1.7 million through the Clean Diesel Grant Program in April 2009, and DEQ began developing grant agreements with sub-recipients for installing verified retrofit exhaust emission control technologies on 200 to 280 heavy-duty diesel engines. On April 28, 2009, DEQ also submitted an application for competitive Diesel Emission Reduction Act funds. The application requests an additional $1.3 million to retrofit vehicles of residential and commercial refuse haulers in Klamath Falls, Bend, and Salem. As of June 11, 2009, DEQ and others are still awaiting a decision from EPA on projects that are to be funded.

A weekly report of all stimulus funding at DEQ is attached for your reference, and we will be sure to inform the commission of any updates at future meetings.

Lakeside Landfill

Lakeside Landfill must stop accepting solid waste by June 30. After that date, the landfill may accept clean fill only for the purposes of meeting final design grades and must complete all closure activities by October 1, 2010.

DEQ is currently reviewing Lakeside Landfill's annual financial assurance plan update received in February 2009. DEQ requested clarification on cost assumptions and recognition of ongoing cleanup activities which will affect the amount of funding needed for closure and post-closure costs. We have determined that the post-closure funds are insufficient.

DEQ is also currently evaluating whether an alternative method is needed to calculate the future costs of closing and conducting long-term monitoring for non-municipal solid waste landfills such as Lakeside Landfill. We plan to assemble a group of stakeholders during the next few weeks and hold at least one public meeting sometime in late July or early August. The stakeholder group will likely consist of landfill owners, individuals from the general public, environmental groups, a trade association and local government.

Lakeside Landfill also operates a compost facility which is regulated by a recently-expired permit. We expect to bring new compost rules to EQC in August, at which time we will evaluate Lakeside Landfill's compost operations against the new compost rules and identify what requirements will apply to this facility.

Lakeside Landfill is required to submit a final work plan to DEQ in July 2009 and is preparing a final remedial investigation report for DEQ by August 1, 2009. Once DEQ approves the work plan, we will establish a compliance date for implementation. The report incorporates monitoring results for Tualatin River sediment samples collected last fall by Lakeside Landfill as part of voluntary cleanup activities.

DEQ issued Lakeside Landfill a mutual agreement and order on April 20, 2009 that requires them to retain all stormwater on site by October 1, 2009. DEQ's approval of the work plan requires Lakeside Landfill to obtain all necessary permits for construction, including a NPDES 1200-C stormwater permit. However, Washington County will not issue a land use compatibility statement for the permit so we are requiring Lakeside Landfill to meet the substantive requirements of the 1200-C permit through the agreement.

In addition to constructing stormwater retention facilities, DEQ is requiring Lakeside Landfillto meet the substantive requirements of the 1200-Z permit for stormwater during the 2008-2009 wet season, including collecting stormwater samples and reporting the results to DEQ by July 31, 2009.

Desler Asbestos Violations

On May 11, 2009, Daniel Desler of Linn County was arrested in connection with felony air pollution charges. On April 22, 2009, Mr. Desler was indicted on seven counts of air pollution in the first degree, three counts of air pollution in the second degree, one count of providing false information to an agency and one count of reckless endangerment. The criminal charges were the result of extensive asbestos violations on the former Sweet Home Plywood and Sawmill site in the town of Sweet Home in Linn County. Mr. Desler, the owner and operator of the site, demolished several of the old buildings used in the mill operation without first surveying the property for asbestos and without having the asbestos properly removed by a licensed abatement contractor. The demolition resulted in over 200,000 square feet of asbestos-containing demolition debris accumulating at the property. The inspections and investigation leading to the prosecution by Linn County Assistant District Attorney Heidi Sternhagen was a collaborative effort by DEQ, Oregon State Police and EPA. Mr. Desler has recently signed an access agreement allowing EPA to begin sampling, assessment and removal of the asbestos-containing waste material.

Lehman Hot Springs

Lehman Hot Springs is a recreational hot springs resort located near Ukiah in Umatilla County. The owners and operators, John Patrick Lucas, Lehman Development Corp. and Lehman Hot Springs, LLC, have been violating environmental regulations related to water quality for many years and the resort does not have the required wastewater permits. In recent weeks, the resort's sewage lagoons have illegally discharged wastewater into Warm Spring Creek, a salmon-bearing tributary of the North Fork of the John Day River. Through a combined effort by the Oregon Departments of Environmental Quality and Justice, the Umatilla County Circuit Court issued a temporary restraining order requiring the owners and operators to immediately cease all discharges to the creek, to reduce the level of the lagoons, and to cease all operation of the lagoons.

In August 2008, Mr. Lucas, Lehman Development Corp. and Lehman Hot Springs, LLC were indicted on four counts of water pollution in the first degree for discharges that occurred in 2005 and 2006. The trial for these criminal charges was originally to start on June 15, 2009, but it has

been postponed until mid July and the parties agreed to extend the temporary restraining order until the hearing date. Further agreements were made to allow DEQ to continue to get on the site with appropriate notice, and to let Water Resources Department staff on the site for additional dam safety inspection.

Federal Motor Vehicle Greenhouse Gas and Fuel Economy Standards

EPA, California and automobile manufacturers have reached agreement to establish nationwide standards to regulate motor vehicle greenhouse gas emissions and fuel economy. Oregon's decision to opt-in to California's standards helped pave the way for this precedent-setting agreement. The standards will apply to new cars, light trucks and medium-duty passenger vehicles model years 2012 through 2016. The federal standard will be phased in, ramping up by 2016 to a standard that is equivalent to California's standard that was adopted by the commission in late 2005. The national fuel economy standard will also increase to 35.5 miles per gallon in 2016.

California has agreed to allow compliance with the less stringent federal standard to serve as compliance with California's requirements from 2012 through 2015. Even though the standards will be less stringent for four years, they will result in greater total reductions because they will apply to all vehicles sold in the country. In return for the phase-in, the auto makers have agreed to drop all lawsuits related to the California standards and EPA has agreed to grant California the waiver of federal preemption for its motor vehicle greenhouse gas standards. The waiver will allow Oregon and other opt-in states to enforce the standards beginning with the 2009 model year. The agreement does not prevent California and Oregon from adopting phase two of the vehicle greenhouse gas emission standards scheduled to begin in 2017.

EPA Mandatory Greenhouse Gas Reporting Rule

On June 9, EPA closed the comment period on its proposed rule for the reporting of greenhouse gases. Many organizations in which DEQ participates, including the Western Climate Initiative and the National Association of Clean Air Agencies, submitted comments on the rules. DEQ supported those comments and targeted its specific comments on three areas that directly affect Oregon. DEQ commented that the federal rule should allow for the delegation of the federal reporting program to states, and that EPA should make it explicit that the rule does not preempt or curtail state and local reporting efforts. This would ensure that the commission's greenhouse gas reporting rule enables DEQ to collect information above that required by the federal rule. DEQ also urged EPA to reconsider its recommendation on the proposed 25,000 mtCO2e reporting threshold. We believe that a reporting threshold of 10,000 mtCO2e would better support the integrity of future regulatory programs, such as national cap and trade, by gathering information on those sources that potentially could move in and out of such a program. Last, because Oregon imports a large percentage of it power, DEQ urged EPA to consider how the reporting rule can make it easier for states to calculate emissions associated with the electricity they consume that is generated in other states. EPA has indicated that it plans to finalize this rule sometime this fall.

National Climate Legislation: American Clean Energy and Security Act of 2009
An amended version of The American Climate and Energy Act of 2009 bill was approved by the House Energy and Commerce Committee on Thursday, May 21. The bill's cap will reduce emissions from covered sources to 17 percent below 2005 levels by 2020 and 83 percent below 2005 levels by 2050. The bill also contains substantial complementary requirements including emissions performance standards for uncapped sources and emission reductions from forest preservation overseas. The bill will need to pass through several more committees including the Natural Resources, Ways and Means, and the Committee on Agriculture before it can reach the floor of the House.

Air Toxics Standards for Boilers
As noted in the April Director's Dialogue, the Pacific Environmental Advocacy Center filed a 60-day notice of intent to sue many of the 33 Oregon companies that operate boilers which are major sources of hazardous air pollutants. The notices alleged that the companies failed to file applications for case-by-case standards for maximum achievable control technology within 18 months after EPA's boiler rule was vacated. In response to the notice, DEQ has received Part I applications from the majority of potentially affected boiler sources and a Part II application from one company. DEQ has provided extensions for these applications because EPA is expected to reissue the standards within the next year.

Portland Air Toxics Solutions
DEQ's Northwest Region and Air Quality Division will shortly begin the next phase of the Portland Air Toxics Solutions project by establishing the advisory committee. This project is DEQ's first effort to implement the geographic approach outlined in the air toxics rules adopted by the commission in 2003. This is significant because it is a new approach to reducing air toxics risk. Rather than focusing on individual source categories, the Portland Air Toxics Solutions team will consider the cumulative impact of all sources of air toxics in the Portland area. The advisory committee will help DEQ develop a ten year plan to reach health benchmarks. The rules also call for the reductions in the plan to be roughly commensurate with source contributions. While DEQ's work to implement the geographic approach was delayed by past budget reductions, the work is now ready to move forward with an initial meeting of the advisory committee scheduled in August.

Representative Mitch Greenlick, Chair of the Legislative Health Care Committee, recently announced his intention to convene an air quality work group after the legislative session adjourns to address concerns expressed by residents in north Portland. DEQ intends to work closely with Representative Greenlick and members of the air quality work group.

ESCO
The ESCO foundry's air quality Title V permit is up for renewal in northwest Portland. While the permit is set to expire in August of 2009, DEQ received a timely application and the current

permit conditions will remain in place until a new permit is drafted, which is expected to take six to 12 months. There was a public meeting hosted by concerned neighbors at Chapman elementary school in May 2009 where DEQ was presented with a petition with over 1,000 signatures requesting that we take a number of actions in the ESCO permit. We will address the concerns expressed in the petitions as part of the Title V permit renewal process, which will include multiple public meetings and opportunities to comment.

We have also met with ESCO representatives to review permit issues and the proposed public process. The ESCO issues will likely be a topic considered by the Portland Air Toxics Solutions project at their advisory committee meeting in August 2009.

Wapato Lake and Blue-Green Algae

The Draft Wapato Management Plan was circulated for comment and questions to interested parties in Washington County in early May. We presented a summary of the plan at an open forum hosted by the Tualatin Riverkeepers and will have a final plan soon. The Wapato Improvement District has been successfully implementing actions from the draft plan this spring. The dike did not breach this past winter, so the water quality problems that were experienced last year have not been repeated.

DEQ Issues a 401 for the PGE Clackamas Hydroelectric Project

Water Quality Division staff have successfully completed a 401 water quality certification permit and management plan for a hydroelectric project on the Clackamas River. The project, run by PGE, will be subject to the conditions of the 401 permit, and an enforceable total maximum daily load plan under a TMDL order I signed this month. This new permit is a major success for protecting the Oak Grove Fork and Clackamas River downstream of the River Mill Dam and is the resolution of settlements dating back over three years.

OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY

FEDERAL ECONOMIC RECOVERY IMPLEMENTATION

WEEKLY REPORT: JUNE 12, 2009

CUMULATIVE OVERALL FINANCIAL STATUS TO DATE

AIR QUALITY

Agy Num	Agency	Program	Competitive Opportunity	Formula Expected	Funds Applied for	Funds Awarded	Funds Committed	Funds Received	Funds Disbursed
34000	DEQ	Diesel Emission Reduction Act (DERA)	1,307,846	1,730,000	3,037,846	1,730,000	0	0	0

LAND QUALITY

Agy Num	Agency	Program	Competitive Opportunity	Formula Expected	Funds Applied for	Funds Awarded	Funds Committed	Funds Received	Funds Disbursed
34000	DEQ	Leaking Underground Storage Tank (LUST) Cleanup	0	2,694,000	2,694,000	0	0	0	0

WATER QUALITY

Agy Num	Agency	Program	Competitive Opportunity	Formula Expected	Funds Applied for	Funds Awarded	Funds Committed	Funds Received	Funds Disbursed
34000	DEQ	Water Quality – Clean Water Act Section 604(b) Water Quality Management Planning	0	447,200	447,200	447,200	0	0	0
34000	DEQ	Clean Water State Revolving Fund	0	44,271,018	44,271,018	0	0	0	0

ACTIONS TAKEN, MAJOR PROJECT UPDATES, AND OTHER MILESTONES

AIR QUALITY – Diesel Emission Reduction Act (DERA)

- State Clean Diesel Grant Program
  - The State Clean Diesel Grant Program funding was awarded in April 2009, and DEQ began developing grant agreements with sub-recipients for installing verified retrofit exhaust emission control technologies on 200-280 heavy-duty diesel engines.
    - DEQ compiled fleet information for three municipal fleets and two privately owned leased construction equipment companies, and completed evaluation of cost effectiveness for exhaust control refitting. This information is required to develop the grant agreements and to procure exhaust control equipment.
  - DEQ is working with the City of Portland on an open procurement for diesel retrofit exhaust controls which will meet ARRA funding procurement requirements.
    - The City of Portland has posted their Request for Proposal for Diesel Emission Retrofit Devices and Installation. The evaluation team met on June 8, 2009, to begin review of the 8 proposals submitted. DEQ is providing technical assistance for the reviewers, but is not on the evaluation team.
  - Clean Diesel Program staff met with representatives from DEQ's Business Office and the State's Department of Administrative Services to review procurement procedures and reporting requirements, as well as other grant award and contracting guidelines. Contract forms are being developed and reviewed internally and with the Attorney General's office. In addition, program staff are preparing a request to proceed with a direct procurement process on behalf of the sub-recipient private parties, and continue to provide advice to Tri-Met on procurement procedures that will meet ARRA requirements.
- National Clean Diesel Funding Assistance Program
  - On April 28, 2009, DEQ submitted an application for competitive DERA funds. The application requests $1,307,846 to retrofit vehicles of residential and commercial refuse haulers in Klamath Falls, Bend, and Salem. The EPA will make the funding decisions on competitive DERA grants by the end of May 2009. As of June 11, 2009, DEQ and others are awaiting a decision on projects that are to be funded.

LAND QUALITY – Leaking Underground Storage Tank Cleanup (LUST)

- DEQ continues to do preliminary planning to enable site work to begin as soon as possible after funds are awarded.

WATER QUALITY – Total Maximum Daily Load (TMDL)

- Planning efforts
  - No major updates. Continued preparations to start work, including establishing time accounting controls, developing forms to collect requisite data reporting elements from grant sub-recipients, and working with contract staff to review and revise drafts of sub-recipient agreements.
  - The five selected projects include:
    - "Watershed Project Implementation in Oregon Watersheds" (DEQ)
    - "Mercury Total Maximum Daily Load Assessment: Willamette and Umpqua Basins" (DEQ)

- "Regulatory Approach for Industrial Stormwater Discharges to TMDL approved Waterbodies: Project in Support of Reconsideration of NPDES Industrial Stormwater General Permits" (DEQ)
- "Lower Columbia River Habitat Restoration Project Development" (to be implemented by the Lower Columbia River Estuary Partnership)
- "Water Quality Planning Work to Support the Bear Creek and Rogue River Basin TMDLs" (to be implemented by the Rogue Valley Council of Governments (RVCOG))

- Implementation
  - Began work on the "Regulatory Approach for Industrial Stormwater Discharges to TMDL approved Waterbodies" project.

WATER QUALITY – State Revolving Fund (SRF)

- Planning efforts
  - Public Notice for update to current fiscal year Intended Use Plan (IUP) published May 8, 2009 ended June 8, 2009. Department will be responding to the public comments received and the IUP will be finalized after reviewing comments.
  - Development of reporting requirements for ARRA fund recipients has been drafted and is now under review by DEQ and EPA staff.
  - Coordination with DEQ's Office of Communication and Outreach on opportunities for outreach when stimulus funds become available and loans are made.
- Coordination efforts with the U.S. Environmental Protection Agency
  - Coordination of statewide workshops with OECDD and Inspector General to provide information on ARRA funding abuse and fraud for fund recipients and SRF staff. Workshops are expected to be held July 7-9, 2009.
  - Coordinated EPA HQ visit to DEQ on June 16, 2009 for discussion on ARRA implementation activities.
- ARRA capitalization grant
  - DEQ is expected to receive $44.2 million in a capitalization grant under the ARRA. 20% of this grant (about $8.8 million) will be used for the Green Project Reserve as required under the ARRA.
  - DEQ has received a conditional award from EPA for the ARRA capitalization grant. Review of the assistance agreement to ensure all administrative conditions will be met, specifically those tied to ARRA, is currently underway.

UPCOMING PLANNED ACTIONS, MAJOR PROJECTS, DEADLINES, AND GRANT OPPORTUNITIES

AIR QUALITY – Diesel Emission Reduction Act (DERA)

- State Clean Diesel Grant Program
  - The State Clean Diesel Grant Program agreements will be completed by the end of July 2009, projects will be completed by September 2010, and the EPA will receive a final report in October 2010.
- National Clean Diesel Funding Assistance Program
  - If awarded (grants awarded in June 2009), DEQ will develop grant agreements with sub-recipients in June-July 2009, projects will be completed in September 2010 and a final report to EPA in October 2010.

LAND QUALITY – Leaking Underground Storage Tank Cleanup (LUST)

- Submitted application for funding ($2,694,000) to EPA on April 16, 2009. On June 11, 2009, EPA issued their guidance to states. EPA Region 10 is now expected to receive normal funding approval from Washington in the near future, enabling application review and award processing to begin. The award date is still unknown at this time.

WATER QUALITY – Total Maximum Daily Load (TMDL)

- Establish accounting structures to track project expenditures and FTE.
- Execute pass-through agreements with grant sub-recipients within four to six weeks after the grant award is received.
- Develop a plan to staff the three internal projects.

WATER QUALITY – State Revolving Fund (SRF)

- Update of Internal Controls Checklist and development of supplemental insert for CWSRF Construction Manual outlining all ARRA specific project criteria.

State of Oregon
Department of Environmental Quality Memorandum

Date: May 22, 2009

To: Environmental Quality Commission

From: Dick Pedersen, Director

Subject: Agenda Item D, Action Item: Ross Bros. contested case

Background

The Oregon Department of Environmental Quality implements environmental protection laws. Most people voluntarily comply with the laws; however, DEQ may assess civil penalties and orders to compel compliance or create deterrence. When a person or business does not agree with DEQ's enforcement action, they have the right to an appeal and a contested case hearing before an administrative law judge.

On November 30, 2007, DEQ issued Ross Bros. Construction, Inc. a Notice of Violation, Department Order and Assessment of Civil Penalty alleging that Ross Bros. caused pollution to waters of the state on four days in early 2006 and assessing civil penalties for each of the four days of violation. On December 20, 2007, Ross Bros. appealed the Notice and Order, and a contested case hearing was held on June 13, 2008. Administrative Law Judge Terrence P. Murphey issued a Proposed Order on November 3, 2008, and on November 24, 2008, Ross Bros. petitioned the EQC for review of the Proposed Order.

Background and Findings of Fact

In the Proposed Order, Administrative Law Judge Murphey found the following:

Ross Bros. is a construction company and was the general contractor for Oregon Department of Transportation on a road project, known as the Shady Bridge Project, in Douglas County where Interstate 5 crosses the South Umpqua River and Old Highway 99.

DEQ issued a National Pollutant Discharge Elimination System Permit Number 1200-CA to ODOT for the Shady Bridge Project. The permit requires the development and implementation of an erosion and sediment control plan to prevent the discharge of significant amounts of sediment to surface waters, and turbid flows of water that are not filtered or settled to remove turbidity prior to leaving the construction site. The permit also prohibits deposits of sediment at the construction site or on public or private streets outside of the permitted construction activity when these deposits are in areas that drain to

unprotected storm water inlets or catch basins that discharge to surface waters or are likely to discharge to surface waters. The 1200-CA Permit also states that "[n]o more than a ten percent cumulative increase in natural stream turbidities shall be allowed, as measured relative to a control point immediately upstream of the turbidity causing activity." As a result of the incidents at issue here, ODOT was cited for violating the permit, and ODOT did not contest the violation.

The South Umpqua River is habitat for salmon and other aquatic life, and turbidity in the water is or can be harmful to this aquatic life.

Ross Bros. was engaged in excavation and earth moving activity at the Shady Bridge Project and had control of the site in February 2006 and March 2006. Ross Bros. had no permit covering its activities at the project.

DEQ observed turbid water discharging from the Shady Bridge into a catch basin that empties into the South Umpqua River on February 15, 16, 21 and March 10, 2006. At some point between February 21, 2006, and March 10, 2006, Ross Bros. had installed some erosion and sediment controls at the site in response to orders from DEQ, but these controls were overwhelmed by the continued flow of turbid water emanating from Ross Bros. activities at the Shady Bridge Project.

Ross Bros. derived an economic benefit, in terms of erosion and sediment control costs avoided, in the amount of $373.

Conclusions of the Administrative Law Judge

Judge Murphey's Proposed Order included two conclusions of law:

1. Ross Bros. violated ORS 468B.025(1)(a) by causing pollution to waters of the state on February 15, 2006, February 16, 2006, February 21, 2006, and March 10, 2006.

2. A penalty of $24,315 is appropriate pursuant to OAR 340-012-0055(1)(a) and OAR 340-012-0045.

In addition to the above conclusions of law, Judge Murphey wrote an opinion section in which he noted that "the facts in this case are largely undisputed." All agree that Ross Bros. was the contractor on the Shady Bridge Project, doing work on the area where the water originated, that ODOT held the permit for the project and that Ross Bros. had no permit of its own. The opinion also observed that "no one disputes" DEQ's observations regarding turbid muddy water discharges from the site into the South Umpqua and that sediment control measures were not in place on February 15, 16, and 21,

2006. Some measures were in place on or before March 10, 2006 but were insufficient to stop the turbid water runoff. Judge Murphey also stated that there was no exact measurement of how much turbid water actually went into the South Umpqua River. Judge Murphey's opinion stated that all of the above information is enough for a prima facie case that Ross Bros. committed the violations alleged by the DEQ.

Ross Bros. raised two arguments in rebuttal at the hearing. First, that the terms of ODOT's Permit excuse the discharges and DEQ cannot therefore allege a violation of ORS 468B.025(1)(a) for causing pollution without proving more than a ten percent cumulative increase turbidity. Second, Ross Bros. also argued that DEQ was required to take a measurement of the turbid water discharge in order to prove it exceeded the ten percent cumulative increase over background levels of turbidity allowed under the permit. This second argument is based on the provision of ODOT's 1200-CA Permit that states, "No more than a ten percent cumulative increase in natural stream turbidities shall be allowed, as measured relative to a control point immediately upstream of the turbidity causing activity."

The opinion rejects Ross Bros.' rebuttal arguments because Ross Bros. did not "establish that its activities were covered by the permit and that its activities were not in violation of the terms of the permit."

Issues On Appeal

Ross Bros. raises four issues for EQC review of Judge Murphey's Proposed Order.

1. Whether or not the National Pollutant Discharge Elimination System (NPDES) General Permit Number 1200-CA assigned to ODOT for the Shady Bridge Project applies to and covers Ross Bros.' activities:

Ross Bros.' argument:
The NPDES 1200-CA Permit states that "sources covered by this permit" include "all construction activities including clearing, grading, excavation, and stockpiling activities under the authority or jurisdiction of a public agency." Ross Bros. argues that because it was ODOT's general contractor engaged in construction activities for the Shady Bridge project, they were covered by the NPDES 1200-CA Permit issued to ODOT. Since ODOT performs no construction activities of its own, Ross Bros. states that the permit must cover the activities of the general contractor who performs the work as ODOT's agent.

In support of this argument Ross Bros. cites a DEQ rule that states:
"(1) without first obtaining a permit [from DEQ]... a person may not (d) Construct, install, operate, or conduct any industrial, commercial, or other

establishment or activity or any extension or modification thereof or additional thereto if the operation or conduct would cause an increase in the discharge of wastes into the waters of the state or would otherwise unlawfully alter the physical, chemical, or biological properties or any waters of the state." OAR 340-045-0015.

Ross Bros. argues that if NPDES permits obtained for a bridge project do not apply to and cover activities of the general contractor who performs the work, then every general contractor violates this rule in every instance that ODOT, not the general contractor, obtains the NPDES permit. In further support of this argument, Ross Bros. relies on a provision in a biological assessment that ODOT commissioned with a private entity to evaluate the potential environmental impacts of the Shady bridge project that states, "Be fully informed of the conditions of the General Conditions in the NPDES permit, which governs operations, and conduct construction operations accordingly." Ross Bros. argues that if the permit did not apply to and cover Ross Bros.' activities they would have no reason to be informed of its conditions, no reason to "conduct construction operations accordingly," and no reason to make the permit available "during construction activities."

Ross Bros. also identifies other aspects of its bridge building activities at the Shady Bridge that constituted "in water work" and, according to Ross Bros.[1], would have required a permit pursuant to OAR 340-045-0015(1)(d).

DEQ's argument:
The NPDES 1200-CA Permit is a permit DEQ may issue only to public agencies. To obtain its coverage a public agency must submit an application, pay permit fees, and develop an erosion and sediment control plan. These are all prerequisites to obtaining permit coverage. Ross Bros. is not a public agency, so DEQ would not have been able to grant it coverage under the permit, even if Ross Bros. had submitted the requisite application, fees and erosion and sediment control plan.

Even if Ross Bros. could claim indirect coverage under ODOT's 1200-CA Permit, Ross Bros.' discharges that caused pollution to the South Umpqua River would not have been lawful, permitted discharges. The1200-CA Permit prohibits discharges to the river absent compliance with a multi-page, detailed list of requirements regarding mandatory erosion and sediment controls and inspections – none of which Ross Bros. followed during February 2006 and early March 2006.

[1] DEQ did not address this argument in our briefs as the type of "in water work" described by Ross Bros., work that includes dredging and filling riverbanks and bottoms, is not regulated by DEQ NPDES permits or subject to OAR 340-045-0015(1)(d).

2. Whether DEQ had to prove, by measurement, a ten percent increase in natural stream turbidities:

Ross Bros.' argument:
A provision in the 1200-CA Permit states that "no more than a ten percent cumulative increase in natural stream turbidities shall be allowed, as measured relative to a control point immediately upstream of the turbidity causing activity." Based on this provision and its argument that the permit applies to its Shady Bridge construction activities, Ross Bros. claims that the permit allows a ten percent cumulative increase in turbidity and that DEQ was required to measure the turbidity using some kind of a turbidity meter or other device and that DEQ failed to prove the discharges caused more than a ten percent cumulative increase in natural stream turbidities.

DEQ's argument:
The 1200-CA Permit does not apply to Ross Bros.' activities. DEQ issued a Notice of Violation and Civil Penalty Assessment to ODOT for violating conditions of the 1200-CA that resulted in the discharges to the South Umpqua at issue in this case. ODOT did not appeal the violation.

DEQ alleged that Ross Bros. caused pollution to waters of the state, violations of ORS 468B.025(1)(a). To sustain the burden of proof for a causing pollution violation, DEQ need not prove the turbidity met any minimum level. The definition of pollution requires no measurement of any kind. Any level of turbidity "which will or tends to, either by itself or in connection with any other substance, create a public nuisance or render such waters harmful, detrimental or injurious to … legitimate beneficial uses or to … wildlife, fish or other aquatic life or habitat" is considered "pollution" under ORS 468B.005(5). Judge Murphey found that the South Umpqua River is habitat for salmon and other aquatic life and turbidity in the water is or can be harmful to this aquatic life. Judge Murphey concluded that DEQ met its burden of proof to show that the turbid water discharges from the Shady Bridge project constituted pollution and were illegal discharges.

3. Whether DEQ can allege a violation of ORS 468B.025 in this case:

Ross Bros.' argument:
Ross Bros. argues that DEQ cannot allege a violation of "causing pollution" and assess penalties under ORS 468B.025(1)(a) because the 1200-CA Permit applies to and covers Ross Bros.' activities and that permit allows some pollution. Ross Bros. claims that ORS 468B.025(2), which provides that "[n]o person shall violate the conditions of any waste discharge permit issued under ORS 468B.050," applies and DEQ was therefore required to give notice of, and allege, a violation of the 1200-CA Permit.

DEQ's argument:
As discussed above, Ross Bros. did not submit an application for coverage under the 1200-CA Permit for the Shady Bridge project. It paid no application fees and developed no erosion and sediment control plan. In short, Ross Bros. was not a permittee under the 1200-CA Permit or any other stormwater permit for the Shady Bridge project. DEQ could not give Notice of a Violation for a permit which did not cover Ross Bros. As noted above, DEQ did issue a civil penalty assessment to ODOT, the 1200-CA permittee in this case, for violating conditions of the permit arising from the same discharges that were the subject of DEQ's causing pollution action against Ross. Bros.

4. Whether the penalty of $24,315 was correctly calculated pursuant to DEQ's Division 12 enforcement rules:

Ross Bros.' argument regarding the violation and penalty matrix:
Ross Bros. claims that it did not commit a causing pollution violation, which is a Class I violation under OAR 340-012-055(1)(a). The company states that the violation was, instead, "placing wastes such that the wastes are likely to enter public waters by any means," which is a Class II violation under OAR 340-012-055(2)(c). They also argue the $2,500 penalty matrix in OAR 340-012-0140(4) should apply, instead of the $8,000 penalty matrix (OAR 340-012-0140(2)) DEQ used to calculate Ross Bros.' penalty. The $2,500 penalty matrix applies to a "person that has or should have applied for coverage under an NPDES stormwater discharge 1200-C General Permit for a construction site that is more than one, but less than five acres." In its reply brief, Ross Bros. states that "[i]t is not clear what the significance of the 'A' is in the 1200-CA Permit" and argues that since the penalty matrix rules do not refer to a NPDES 1200-CA Permit, and because the Shady Bridge project was a construction project, the $2,500 matrix applies.

DEQ's argument:
DEQ's Division 12 enforcement rules state that "[a]ny violation of ORS 468B.025(1)(a) by a person without an [NPDES] permit" is a Class I violation. The Class II placing wastes classification is applicable in situations where there was no actual discharge but merely a risk of discharge. Ross Bros.' activities and its failure to perform mitigation or corrective action resulted in a continuous and actual discharge of pollution to the South Umpqua River.

The $2,500 penalty matrix applies when a person has applied for coverage under the NPDES stormwater discharge 1200-C General Permit. The NPDES 1200-C Permit is a wholly separate permit that is unrelated to the NPDES 1200-CA permit and this case. The applicable matrix is the $8,000 matrix,

which applies to "[a]ny violation of 468B.025(1)(a) ... by a person without a National Pollutant Discharge Elimination System (NPDES) permit." Since Ross Bros. did not have any NPDES permit, the $8,000 penalty matrix applies to its violations.

Ross Bros.' argument regarding the applicable mental state:
Ross Bros. argues that it was not reckless as alleged by DEQ, because there was a 100-year flood that caused wet weather and unanticipated flows of water from the portion of the Shady Bridge project that flowed into the South Umpqua River. Ross Bros. also stated that it was responding to a traffic accident on the day DEQ first noticed the discharge to the river, and took corrective measures "very shortly" after DEQ brought the discharge to Ross Bros.' attention, eventually installing additional erosion and sediment control measures when the first measures were not fully effective. Ross Bros argues that it was at most negligent, a lesser mental state under DEQ's Division 12 enforcement rules.

DEQ's argument regarding the applicable mental state:
DEQ alleged that Ross Bros. was reckless because turbid water was easily observed discharging from the site and that by failing to install adequate erosion and sediment controls, and failing to maintain erosion and sediment controls in place, Ross Bros. consciously disregarded a substantial and unjustifiable risk that it would cause pollution to waters of the state. This conscious disregard for the substantial and unjustifiable risk of water pollution was reckless under that definition in DEQ's Division 12 enforcement rules.

Ross Bros.' statement that there was a 100-year flood that caused unanticipated flows is unsubstantiated by the evidence and testimony presented at hearing. Ross Bros. also offered no proof of any automobile accident or any proof that any such accident left Ross Bros. unable to act to correct the violations DEQ observed. Ross Bros. admitted at hearing that they did not place any erosion and sediment controls at the site until February 27, 2006 – well after the discharges were first observed by DEQ on February 15th. By March 10, 2006, Ross Bros. had installed some hay bales at the site in an attempt to control erosion and sediment but those were in disrepair, malfunctioning and ineffective. By failing to install adequate erosion and sediment controls until after March 10, 2006, Ross Bros. acted recklessly and with a conscious disregard of the risk that it would cause pollution to the South Umpqua.

EQC Authority

EQC has the authority to hear this appeal under OAR 340-011-0575.

DEQ's contested case hearings must be conducted by an administrative law judge.[2] The Proposed Order was issued under current statutes and rules governing the Administrative Law Judge Panel.[3]

Under ORS 183.600 to 183.690, EQC's authority to change or reverse an administrative law judge's Proposed Order is limited, as follows:

1. The EQC may not modify the form of the administrative law judge's Proposed Order in any substantial manner without identifying and explaining the modifications.[4]
2. The EQC 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 EQC 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 EQC may not consider any new or additional evidence, but may only remand the matter to the administrative law judge 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 EQC will not consider matters not raised before the administrative law judge unless it is necessary to prevent a manifest injustice.[8] The EQC will not remand a matter to the administrative law judge 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]

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[2] ORS 183.635.
[3] ORS 183.600 to 183.690 and OAR 137-003-0501 to 137-003-0700.
[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).

Alternatives

The EQC may:

1. As requested by DEQ, issue a Final Order adopting Judge Murphey's Proposed Order.
2. Issue a Final Order determining that the findings of fact were not based on a preponderance of the evidence, explain why and amend Judge Murphey's Proposed Order accordingly.
3. Issue a Final Order determining that the civil penalty should be calculated as a class II, under the $2,500 penalty matrix, and/or reduce the M factor from 6 for reckless to 2 for negligent. Doing all of these would result in a reduction of the civil penalty for one violation from $6,000 to $1,875, plus one-time economic benefit of $315. The new total civil penalty for all four days of violations would be $7,811.

Attachments

A. DEQ's Notice of Violation and Civil Penalty Assessment, dated November 30, 2007
B. Ross Bros.' Answer to DEQ's Notice, dated December 19, 2007
C. Office of Administrative Hearings, Corrected Proposed and Final Order, dated November 3, 2008
D. Ross Bros.' Petition for Commission Review
E. NPDES 1200-CA General Permit
F. Ross Bros. Exceptions and Brief
G. Ross Bros Reply in Support of its Exceptions
H. DEQ's Answering Brief

Approved:

Jane K. Hickman, Administrator
DEQ's Office of Compliance and Enforcement

Report Prepared by: Courtney Brown
Environmental Law Specialist
Phone: (503) 229-6839

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 30, 2007

CERTIFIED MAIL No. 7006 0100 0002 8262 2268

Robert Coleman
Stewart Sokol & Gray LLC
Portland, OR 97201-5047

Re: Notice of Violation and Civil Penalty Assessment
In re: Ross Bros. Construction, Inc. No. WQ/SW-WR-06-257
Douglas County

On February 15, 2006, Department of Environmental Quality (Department) staff inspected Oregon Department of Transportation's (ODOT) Shady Bridge project located where Interstate-5 (I-5) crosses the South Umpqua River and Old Highway 99. ODOT contracted with Ross Bros. Construction, Inc. (Ross Bros.) to remove and replace a bridge at the site. Ross Bros.' work included cut bank excavation and stabilization activities, as well as grading and paving and constructing work access to the site.

During the Department's inspection, staff observed there were no erosion and sediment controls in place on the section of the Shady Bridge project that ran along the eastern side of I-5 and that there were no erosion and sediment controls in the cut bank excavation area. In addition, construction truck traffic at the site had broken down the soil along an approximately quarter mile section along I-5. Staff observed muddy water running off the Shady Bridge site and into a storm drain partially covered with mud, which eventually drained into the South Umpqua River. There was a visible plume of turbid water discharging from the storm drain into the South Umpqua River extending to a distance of approximately 25 feet.

On the morning of February 16, 2006, Department staff came to the project site and informed Ross Bros. about the need for erosion and sediment controls at the site. Department staff returned to the site that evening and found that there were still no erosion and sediment controls in place. On February 21, 2006, Department staff inspected the site and again observed turbid water discharging from the site. On March 10, 2006, Department staff inspected the site and found that erosion and sediment controls had been installed, but were not being maintained, resulting in turbid water continuing to discharge into the South Umpqua River. Subsequent inspections on April 5, 2006, and April 21, 2006, revealed that installed erosion and sediment controls still were not being maintained and that the turbid water discharges were on-going.

Turbidity in the water column and deposition of sediments can degrade water quality and may harm aquatic life by covering up food sources, abrading fish gills, and smothering fish eggs and invertebrate organisms living in the river. The South Umpqua is habitat for Coho, Spring Chinook, and other aquatic life. Turbidity also tends to create a public nuisance and harm other

beneficial uses of public waters of the state. Such turbid water discharges are included in the definition of pollution under Oregon environmental law. Causing pollution to waters of the state is a Class I violation of Oregon environmental law.

In the enclosed Notice, the Department has assessed a civil penalty of $24,315 for causing pollution to waters of the state on February 15, February 16, February 21, and March 10, 2006. The penalty was determined as set forth in Oregon Administrative Rule (OAR) 340-012-0045. The Department's findings and civil penalty determination are attached to the Notice as Amended Exhibit No. 1. The Department appreciates the steps Ross Bros. took to correct the violation by eventually installing erosion and sediment controls at the site to control the discharges of turbid water to the South Umpqua River.

The steps Ross Bros. must follow to request a review of the Department's allegations and determinations in this matter are set forth in Section IV of the enclosed Notice and in OAR 340-011-0530 and OAR 137-003-0528 (copy enclosed). Ross Bros. needs to follow the rules to ensure it does not lose the opportunity to dispute the Department's findings.

If Ross Bros. wishes to dispute the Notice, it must file a written request for a hearing, including a written response that admits or denies all of the facts alleged in Section II of the enclosed Notice. In the request for hearing, Ross Bros. should also allege all affirmative defenses and provide reasons why they apply in this matter. Ross Bros. will not be allowed to raise these issues at a later time, unless it can show good cause for that failure.

If the Department does not receive a request for a hearing and answer within **twenty calendar days** from the date that Ross Bros. receives the enclosed documents, the Department will issue a Default Order and the civil penalty assessment will become final and enforceable. Ross Bros. can fax its request for hearing to the Department at 503-229-5100 or mail it to the address stated in Section VI of the Notice.

If Ross Bros. wishes to discuss this matter, or believes there are mitigating factors the Department might not have considered in assessing the civil penalty, Ross Bros. may include a request for an informal discussion in its request for hearing. A request to discuss this matter with the Department does not waive the right to a contested case hearing.

I look forward to Ross Bros.' cooperation in complying with Oregon environmental law in the future. If, however, any additional violations occur, Ross Bros. may be assessed additional civil penalties.

Copies of referenced rules are enclosed. Also enclosed is a copy of the Department's internal management directive regarding civil penalty mitigation for Supplemental Environmental Projects (SEPs). If Ross Bros. is interested in having a portion of the civil penalty fund an SEP, it should review the enclosed SEP directive.

If Ross Bros. has any questions about the Notice, please contact Courtney Brown with the Department's Office of Compliance and Enforcement in Portland at 503-229-6839 or toll-free at 1-800-452-4011, extension 6839.

Sincerely,

Dick Pedersen
Deputy Director

Enclosures

cc: Paul Kennedy, Western Region, Roseburg Office, DEQ
Water Quality, HQ, DEQ
Larry Knudsen, Department of Justice, Portland Office
Environmental Protection Agency
Douglas County District Attorney

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION

OF THE STATE OF OREGON

IN THE MATTER OF: ROSS BROS. CONSTRUCTION, INC., an Oregon corporation, Respondent.	))))))	NOTICE OF VIOLATION AND CIVIL PENALTY ASSESSMENT No. WQ/SW-WR-06-257 DOUGLAS COUNTY

I. AUTHORITY

This Notice of Violation and Civil Penalty Assessment (Notice) is issued to Respondent, Ross Bros. Construction, Inc., an Oregon corporation, by the Department of Environmental Quality (Department) pursuant to Oregon Revised Statutes (ORS) 468.100 and 468.126 through 468.140, ORS Chapter 183 and Oregon Administrative Rules (OAR) Chapter 340, Divisions 011 and 012.

II. VIOLATIONS

On or about February 15, February 16, February 21, and March 10, 2006, Respondent violated ORS 468B.025(1)(a) by causing pollution to waters of the state. Specifically, Respondent caused muddy water and sediment from the Shady Bridge Project, located where Interstate 5 (I-5) crosses over the South Umpqua River and Old Highway 99, to drain into a catch basin which discharges to the South Umpqua River, waters of the state. The discharges altered the physical properties of the South Umpqua River, including its color and turbidity. The South Umpqua River is habitat for Coho, Spring Chinook and other aquatic life. Turbid and muddy water discharges tend to render waters harmful, detrimental or injurious to fish or aquatic life or the habitat thereof and to other legitimate beneficial uses of the waters of the state. According to OAR 340-012-0055(1)(a), these are Class I violations.

III. ASSESSMENT OF CIVIL PENALTIES

The Department imposes a civil penalty of $24,315 for the violations in Section II, above. The findings and determination of Respondent's civil penalty, pursuant to OAR 340-012-0045, are attached and incorporated as Amended Exhibit No. 1.

///

IV. 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, 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.** 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. In the written answer, Respondent must admit or deny each allegation of fact contained in this Notice, 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 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.

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 was issued may serve as the record for purposes of entering a Default Order.

V. 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.

VI. 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 $24,315 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.**

11-30-07
Date

Dick Pedersen
Deputy Director

AMENDED EXHIBIT 1

FINDINGS AND DETERMINATION OF RESPONDENT'S CIVIL PENALTY PURSUANT TO OREGON ADMINISTRATIVE RULE (OAR) 340-012-0045

VIOLATION 1: Causing pollution to waters of the state, in violation of ORS 468B.025(1)(a), on or about February 15, 16, and 21, 2006, and March 10, 2006.

CLASSIFICATION: These are Class I violations pursuant to OAR 340-012-0055(1)(a).

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 $4,000 for a Class I moderate magnitude violation in the matrix listed in OAR 340-012-0140(2)(b)(A)(ii) and applicable pursuant to OAR 340-012-0140(2)(a)(C).

"P" is whether Respondent has any prior significant actions, as defined in OAR 340-012-0030(16), in the same media as the violation at issue that occurred at a facility owned or operated by the same Respondent, and receives a value of 0 according to OAR 340-012-0145(2)(a)(A) because Respondent has no prior significant actions.

"H" is Respondent's history of correcting prior significant action(s) and receives a value of 0 according to OAR 340-012-0145(3)(a)(C), because there is no prior history.

"O" is whether the violation was repeated or ongoing and receives a value of 0 according to OAR 340-012-0145(4)(a)(B) because Respondent is being assessed a separate penalty for multiple occurrences of the violation.

"M" is the mental state of the Respondent and receives a value of 6 according to OAR 340-012-0145(5)(a)(C), because Respondent was reckless. During February of 2006 turbid water was easily observed discharging from the site. By failing to install adequate erosion and sediment controls, and by failing to maintain erosion and sediment controls in place, Respondent consciously disregarded a substantial and unjustifiable risk that it would cause pollution to waters of the state.

"C" is Respondent's efforts to correct the violation and receives a value of -1 according to OAR 340-012-0145(6)(a)(C), because Respondent eventually made efforts to correct the violation. Respondent eventually installed and maintained erosion and sediment control measures at the site.

"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 $315. This is the amount Respondent

gained by delaying spei. .ıg approximately $20,450 from May 16,)05, until March 10, 2006, to install erosion and sediment controls at the Shady Bridge project site.

PENALTY CALCULATION:

Penalty= BP + [(0.1 x BP) x (P + H + O + M + C)] + EB
= $4,000 + [(0.1 x $4,000) x (0 + 0 + 0 + 6 + -1)] + EB
= $4,000 + [($400) x (5)] + EB
= $4,000 + $2,000 + EB
= $6,000*

* Pursuant to ORS 468.140(2) each day of violation constitutes a separate violation. Of the violations cited in the Notice of Violation, the Department elects to assess separate penalties for the violations observed during Department inspections on February 15, February 16, February 21, and March 10, 2006 for a total of 4 penalties. Respondent's final civil penalty is calculated by multiplying the amount of penalty for a single violation, $6,000, by the number of observed violations (4), plus the "EB" Respondent gained through its violation, $315, for a final penalty of $24,315.

STEWART SOKOL & GRAY LLC

ATTORNEYS AT LAW

John Spencer Stewart PC *†◊▫
Jan D. Sokol*†▫
Arnold L. Gray †
Susan Z. Whitney*
H. Lee Cook*◊
Thomas A. Larkin*◊▫

2300 SW FIRST AVENUE
SUITE 200
PORTLAND, OREGON 97201-5047
(503) 221-0699
FAX (503) 223-5706
www.lawssg.com

Angela M. Otto*
Robert B. Coleman*
Lawrence A. Wagner*
Tyler J. Storti
Neil N. Olsen
Scott D. Schnuck
Joseph A. Rohner IV
Aaron M. Hessel

All Members of Oregon Bar
* Washington Bar
† District of Columbia Bar
◊ Alaska Bar
▫ Idaho Bar

December 19, 2007

Via Fax and Regular Mail

Deborah Nesbit
Oregon Department of
Environmental Quality
811 S.W. 6th Ave.
Portland, Oregon 97204

Re: Ross/Notice of Violation dated November 30, 2007
WQ/SW-WR-06-257

Dear Ms. Nesbit:

This firm represents Ross Bros. & Company with respect to the above-referenced matter. The following is Ross' request for a contested case hearing regarding the above-referenced Notice of Violation No. WQ/SW-WR-06-257 (the "Notice").

With respect to the facts alleged in Paragraphs II and III of the Notice, Ross admits that discharges into the water of the South Umpqua River occurred on the dates alleged from the I-5 Shady Bridge Construction Project near Roseburg. Ross denies that it violated ORS 468B.025(1)(a). Ross denies that any discharges from the I-5 Shady Bridge project rendered any waters harmful, detrimental or injurious to fish or aquatic life or their habitat, or were harmful, detrimental or injurious to any beneficial uses of the waters of Oregon. The remainder of Paragraphs II and III do not allege facts, so Ross believes no response is required; to the extent the remainder of Paragraphs II and III are deemed to allege facts, they are denied.

As its first affirmative defense, Ross alleges that the State of Oregon, acting through the Oregon Department of Transportation, caused the discharges that occurred by changing the work of the Shady Bridge project in a manner that caused the discharges, without allowing Ross to take actions necessary to prevent the discharges given the changes ordered. As its second affirmative defense, Ross alleges that at

least some portions of the discharges alleged to have occurred may have been caused by still other third parties.

Ross Bros. objects to the DEQ's untimely amendment and/or supplement of its original notice of violation, which contains new allegations and an increased calculation of damages.

Ross does not request an informal discussion, as one was had in response to the original notice of violation. Ross will continue to consider a mitigation project in lieu of the penalty assessed in the original notice of violation.

Thank you in advance for your professional courtesies.

Very truly yours,

STEWART SOKOL & GRAY, LLC

Robert B. Coleman

RBC:la

cc: Steve Ross (via facsimile)
Jan Sokol

 The only correction is the Agency Case No. - it was wrong on the original order.

BEFORE THE OFFICE OF ADMINISTRATIVE HEARINGS
STATE OF OREGON
for the
ENVIRONMENTAL QUALITY COMMISSION

IN THE MATTER OF :	) **CORRECTED PROPOSED AND FINAL**) **ORDER**)
ROSS BROTHERS CONSTRUCTION, INC., **Respondent**	) OAH Case No.: 700281) Agency Case No.: WQ/SW-WR-06-257

HISTORY OF THE CASE

On May 10, 2007, the Department of Environmental Quality for the State of Oregon (DEQ) issued a Notice of Violation, Department Order, and Assessment of Civil Penalty (the Notice) to Ross Brothers Construction, Inc. (Respondent). The DEQ asserted that Respondent caused pollution to waters of the state on four dates in early 2006. Respondent, through counsel, requested a hearing on June 18, 2007.

On October 29, 2007, the DEQ referred the hearing request to the Office of Administrative Hearings (OAH). Administrative Law Judge Terrence P. Murphey was assigned to preside at hearing.

On November 30, 2007, the Department of Environmental Quality for the State of Oregon (DEQ) issued a second Notice of Violation, Department Order, and Assessment of Civil Penalty (the second Notice) to Ross Brothers Construction, Inc. (Respondent). The DEQ sought a civil penalty of $24,315. On December 20, 2007, Respondent again requested a hearing.

A hearing was held on June 13, 2008 in Salem, Oregon, with Administrative Law Judge Terrence P. Murphey presiding. Respondent appeared and was represented by counsel, Robert B. Coleman. Todd Ross testified as a witness for Respondent. The DEQ was represented by Courtney Brown, Environmental Law Specialist. Thomas Rosetta, a Water Quality Specialist from the DEQ, Paul Kennedy of the DEQ's Roseburg office, Herb Shaw of David Evans & Associates, Chris Hunter of the Oregon Department of Transportation (ODOT), and Art Martin of the Oregon Department of Fish and Wildlife (ODFW), testified as witnesses on behalf of the DEQ. The record closed after the date for closing briefs, June 27, 2008.

ISSUES

(1) Whether Respondent violated ORS 468b.025(1)(a) by causing pollution to waters of the state on February 15, 2006, February 21, 2006, February 21, 2006, March 10, 2006, on any combination of these dates, or at all.

(2) What penalty, if any, is appropriate pursuant to OAR 340-012-0055(1)(a) and OAR 340-012-0045.

EVIDENTIARY RULINGS

DEQ's Exhibits D1-D19 and Respondent's Exhibits R1-R6 were admitted into evidence without objections.

FINDINGS OF FACT

(1) Respondent, a corporation, is a construction company and was the general contractor on a road project for ODOT in Douglas County where Interstate 5 crosses the South Umpqua River and Old Highway 99, known as the Shady Bridge Project. (Test. of Kennedy, Test. of Ross, Ex. D1.)

(2) The Shady Bridge Project was covered by Permit Number 1200-CA, General Permit, National Pollutant Discharge Elimination System, Storm Water Discharge Permit ("the Permit"), which had been issued by the DEQ to ODOT. The Permit provides, in a section captioned "performance limitations," that an erosion and sediment control plan (ESCP) was to be developed and implemented to "prevent the discharge of significant amounts of sediment" to surface waters and that conditions which were to be "prevented from occurring" included "turbid flows of water that are not filtered or settled to remove turbidity prior to leaving the construction site" and "deposits of sediment at the construction site" or "on public or private streets outside of the permitted construction activity" when these were in "areas that drain to unprotected storm water inlets or catch basins that discharge to surface waters" or are "likely to discharge to surface waters." The Permit further provides, in a section captioned "additional requirements," that "No more than a ten percent cumulative increase in natural stream turbidities shall be allowed, as measured relative to a control point immediately upstream of the turbidity causing activity." (Ex. D18, p.6.) As a result of the incidents at issue here and described below, ODOT was cited for violating the Permit, and ODOT did not contest the citation. (Test. of Kennedy, Test. of Hunter; Test. of Ross, Ex. D18.)

(3) The South Umpqua River is habitat for salmon and other aquatic life, and turbidity in the water is or can be harmful to this aquatic life. (Test of Rosetta; Test. of Martin; Ex. D4.)

(4) Respondent was engaged in excavation and earth moving activity at the Shady Bridge Project and had control of the site in February 2006 and March 2006. Respondent had no National Pollutant Discharge Elimination System, Storm Water Discharge Permit covering Respondent's activities at the Shady Bridge Project. (Test. of Kennedy; Test. of Ross.)

(5) On February 15, 2006, there was turbid water discharging from the Shady Bridge Project into a catch basin that empties into the South Umpqua River. There were no erosion and sediment controls in place on the section of the Shady Bridge Project that ran along the eastern side of Interstate 5 or in the cut bank excavation area. The discharge created a plume of turbid water that extended at least 20 feet into the South Umpqua and some distance downstream. (Test. of Kennedy; Ex. R1, R4, R5.)

(6) On the morning of February 16, 2006, a DEQ employee advised Respondent about the discharge and the resulting need for erosion and sediment controls at the site. No such erosion and sediment controls were in place that day, and there was still turbid water discharging from the Shady Bridge Project into a catch basin that empties into the South Umpqua River at the end of that day. (Test. of Kennedy; Ex. R1.)

(7) On February 21, 2006 a DEQ employee observed additional turbid water discharging from the Shady Bridge Project. (Test. of Kennedy.)

(8) On March 10, 2006, there was additional turbid water discharging from the Shady Bridge Project into a catch basin that empties into the South Umpqua River. Although some erosion and sediment controls had been installed, they were not being maintained, and had been overwhelmed by the continued flow of turbid water emanating from Respondent's activities at the Shady Bridge Project. (Test. of Kennedy; Exs. R1 and D6.)

(9) Respondent derived an economic benefit from the, in terms of costs avoided, in the amount of $373. The economic benefit amounts were determined using the U.S. Environmental Protection Agency's BEN computer model, as permitted by OAR 340-012-0150(1). (Test. of Rosetta; Ex. D12.)

(10) On December 20, 2007, Respondent made a timely hearing request.

CONCLUSIONS OF LAW

(1) Respondent violated ORS 468b.025(1)(a) by causing pollution to waters of the state on February 15, 2006, February 21, 2006, February 21, 2006, March 10, 2006.

(2) A penalty of $24,315 is appropriate pursuant to OAR 340-012-0055(1)(a) and OAR 340-012-0045.

OPINION

The facts in this case are largely undisputed. All agree that Respondent was the contractor on the Shady Bridge Project, and was doing the work on the hillside from which the turbid water originated. All agree that ODOT had obtained the Permit for the Shady Bridge Project, and on what the Permit says, and that Respondent had no permit of its own. No one disputes the observations of the DEQ employee (and the photographs

taken by that employee) who observed turbid, muddy water flowing from the project down the side of a roadway, into a catch basin, through a culvert, and into the South Umpqua River, and no one disputes the fact that sediment control measures were not in place on February 15, 2006, February 16, 2006 or February 21, 2006 but that those measures were in place on or before March 10, 2006 (although perhaps not sufficiently to stop the runoff of turbid water).

No one asserts that there was any exact measurement of how much turbid water actually went into the South Umpqua River; the only direct evidence is a visual observation by a DEQ employee who scrambled down the blackberry filled riverbank and looked over the river on one occasion. ODOT and Respondent made no measurements at all.

As is seen below, this is enough for a prima facie case that Respondent committed the violations alleged by the DEQ. Respondent raises two arguments in rebuttal. First, Respondent asserts that DEQ's "look" over the river is insufficient to confirm discharge of turbid water into the river, and that more comprehensive and exact measurements were required. Second, Respondent suggests that the terms of ODOT's Permit excuse any discharge, and that the DEQ cannot invoke any statutory provision not involving a permit.

This opinion will address the alleged violations in terms of the appropriate statutes and rules. Then, the appropriate penalties under the rules will be considered, including the many subparts of the rules which determine the amount of any penalties.

The pollution violations

ORS 468B.025 provides that:

(1) Except as provided in ORS 468B.050 or 468B.053, no person shall:

> (a) Cause pollution of any waters of the state or place or cause to be placed any wastes in a location where such wastes are likely to escape or be carried into the waters of the state by any means.
>
> (b) Discharge any wastes into the waters of the state if the discharge reduces the quality of such waters below the water quality standards established by rule for such waters by the Environmental Quality Commission.

(2) No person shall violate the conditions of any waste discharge permit issued under ORS 468B.050.

ORS 468B.005(5) defines "pollution" as follows:

(5) "Pollution" or "water pollution" means such alteration of the physical, chemical or biological properties of any waters of the state, including change in * * * turbidity * * * of the waters * * * which will or tends to render such waters harmful, detrimental or injurious to * * * * * fish or other aquatic life or the habitat thereof.

ORS 468B.005(9) defines "wastes" as follows:

(9) "Wastes" means sewage, industrial wastes, and all other liquid, gaseous, solid, radioactive or other substances which will or may cause pollution or tend to cause pollution of any waters of the state.

OAR 340-045-0045 governs any transfer of the Permit, and provides as follows:

(1) No NPDES or WPCF permit will be transferred to a third party without prior written approval from the Department. Such approval may be granted 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 the NPDES or WPCF permit and the rules of the Commission.

When DEQ observed the flow of turbid water from the Shady Bridge Project into the South Umpqua River on February 15, 2006, and noted that turbid water was moving from the Shady Bridge Project into the same catch basin leading to the South Umpqua River on February 16, 2006, February 21, 2006 and March 10, 2006, its observations (and the testimony based on those observations) were sufficient to establish that turbid water was moving from the Shady Bridge Project into the South Umpqua River on all four days. This conclusion is due in part to the complete absence of contrary evidence or testimony. The DEQ testimony also established that there were no erosion and sediment control measures in place on the relevant dates except on March 10, 2006, and that the measures in place on March 10, 2006 were inadequate and overwhelmed by the movement of turbid water. Finally, the DEQ testimony established that the sediment coming from the Shady Bridge Project had been created or disturbed by Respondent, and that some of it had been deposited onto a public roadway by Respondent's construction equipment as the equipment moved onto and off the construction site.

Respondent correctly argues that DEQ offered too little evidence to establish that the flow of turbid water into the South Umpqua River which resulted caused "more than a ten percent cumulative increase in natural stream turbidities" on any of the dates in issue. Respondent cites the Permit in defense of its contention that more exact measurements were required, but the citation is not persuasive because the terms of the Permit, taken as a whole, make clear that Respondent (if anyone) had the responsibility for making any such measurements. The absence of measurements beyond those taken cannot prevent a finding that turbid water flowed from the Shady Bridge Project into the South Umpqua River on all four of the dates in issue as a result of Respondent's activities.

To avail itself of the language in the Permit concerning an increase of ten percent or less in turbidity, Respondent needed to establish that its activities were covered by the Permit and that its activities were not in violation of the terms of the Permit. Respondent cannot establish either of these things. There was no evidence that Respondent applied for its own permit, no evidence that Respondent applied for transfer of ODOT's Permit, no evidence that the terms of the Permit either expressly or impliedly covered Respondent's activities, and no authority or evidence establishing that Respondent "stood in the shoes" of ODOT as a holder of the Permit as a matter of law or at all. Finally, the Permit expressly required measures to control and prevent turbid discharges into the South Umpqua River (the ESCP). Respondent had no ESCP, and also violated the terms of the Permit by causing and allowing conditions that were to be "prevented from occurring." The Permit is not a defense for Respondent.

Respondent violated ORS 468B.025(1)(a) on each of the four date in issue.

The civil penalties for the pollution violations

In Oregon, DEQ, pursuant to its statutory authority, has promulgated rules to apply civil penalties for water pollution violations. Initially, DEQ classifies the violation and determines a base penalty. Then, DEQ considers various aggravating and mitigating factors and assigns a numeric value is assigned to each. Finally, DEQ uses a formula to set the penalty by considering the base penalty, the values assigned to aggravating and mitigating factors, and the economic benefit derived by the Respondent from the violation as determined by a computer program created by the federal Environmental Protection Agency (the BEN computer model).

Classification and magnitude of the violations

Classification of water quality violations is discussed in former OAR 340-012-0055, which defined "Class I" and "Class II" violations and provided, in pertinent part:

(1) **Class I:**

(a) Causing pollution of waters of the state;

* * * * *

(2) **Class II:**

(c) Placing wastes such that the wastes are likely to be enter public waters by any means * * * * *

At the hearing and in its closing brief, Respondent argues that it did not "cause pollution" because it did not pour material directly into the South Umpqua River, but merely placed it in a location where rain water or runoff carried it into the South Umpqua

River. The problem with this analysis is that it ignores the undisputed fact that the material actually entered the South Umpqua River, thus causing "pollution" and making the violations Class I violations.

Former OAR 340-012-0130(1) states that, to determine the magnitude of a violation, "For each civil penalty assessed, the magnitude will be moderate unless [one of a list of specified circumstances exists]" Since neither the DEQ nor Respondent assert that any of the specified conditions exist, and there is no evidence suggesting that any of the listed conditions is met, the magnitude of the violations is moderate, as provided for by the rule and as determined by DEQ.

The base penalty for the violation

The appropriate base penalty (BP) for each violation is determined by applying the classification and magnitude of each violation to the matrices in OAR 340-012-0140.

Former OAR 340-012-140(2)(a)(C) provides, in pertinent part, that:

(a) The $8,000 penalty matrix applies to the following:

* * * * *

(C) Any violation of 468B.025(1)(a) by a person without a National Pollutant Discharge Elimination System (NPDES) permit.

The $8,000 penalty matrix applies to these violations, since Respondent did not have an NPDES permit.

Former OAR 340-012-140(2)(b)(A)(ii) establishes base penalty values under the $8,000 penalty matrix and provides that the base penalty for a Class I moderate violation is $4,000, which is the applicable penalty here.

The base penalty for Respondent's violations here was correctly found by DEQ to be $3,000.

Aggravating and mitigating factors applicable to the violation

OAR 340-012-0045(2)(d) lists the aggravating and mitigating factors to be considered, and provides as follows:

(d) The base penalty is adjusted by the application of aggravating or mitigating factors (P = prior significant actions, H = history in correcting prior significant actions, O = repeated or ongoing violation, M = mental state of the violator and C = efforts to correct) as set forth in OAR 340-012-0145.

OAR 340-012-0145 provides direction on the assignment of a numeric value to each of the aggravating and mitigating factors listed above. It provides that "P" is whether the respondent has any prior significant actions (PSAs)" and that "P" shall have a value of "0 if no PSAs or there is insufficient information on which to base a finding under this section." The DEQ concedes that Respondent had no prior significant actions, and correctly assigned a value of zero to "P." On similar grounds, a value of zero was correctly assigned to "H" by the DEQ because absent any history of violations by Respondent, Respondent could have no history of correcting violations.

OAR 340-012-0145 provides that the value of "O" shall be "0 if the violation existed for one day or less and did not recur on the same day." The DEQ correctly takes the position that since Respondent's violations are being assessed for each of four different days, that no single violation continued for more than a day and assigned a value of zero to "O."

OAR 340-012-0145 provides (in part) that the value of "M" is based on "the mental state of the violator" and that the value of "M" shall be six if :

> [T]he respondent's conduct was reckless, or the respondent had actual knowledge that its conduct would be a violation and respondent's conduct was intentional. A respondent that previously received a Notice of Noncompliance, WL, PEN or any FEA for the same violation is presumed to have actual knowledge. Holding a permit that prohibits or requires conduct may be actual knowledge depending on the specific facts of the case.

Setting aside the inherent problems in determining the mental state of a corporation, the evidence here supports the DEQ's finding that the Respondent's conduct warranted setting the value of "M" at six.

The DEQ found, in the second Notice, that "Respondent acted recklessly" for two reasons: that "turbid water was "easily observed discharging from the site" and that Respondent's failure to install and maintain "adequate erosion and sediment controls" Respondent "consciously disregarded a substantial and unjustifiable risk that it would cause pollution to the waters of the state."

Against this, Respondent offered the argument that the waters entering the South Umpqua River from the Shady Bridge Construction Site were the result of "a 100-year flood," that Respondent "thought" the materials would not run off into the South Umpqua River, that one of its managers was responding to an automobile accident the day that the DEQ advised Respondent that Respondent was causing pollution to the South Umpqua River, and that it took corrective measures "very shortly" after the violation was pointed out by the DEQ. These arguments are not persuasive.

First, the "100-year flood" argument is unsupported by weather or other records showing that the rainfall (even assuming that it was the sole cause of the pollution) was

so extraordinary that the entry of the material into the South Umpqua River could be considered unanticipated. Second, no reason is offered concerning why Respondent "thought" the materials would not enter the South Umpqua River. Under OAR 340-012-0030(17);

> "Reckless" or "Recklessly" means the respondent consciously disregarded a substantial and unjustifiable risk that the result would occur or that the circumstance existed. The risk must be of such a nature and degree that disregarding that risk constituted a gross deviation from the standard of care a reasonable person would observe in that situation.

Here, Respondent cannot have it both ways. It asserts the protection of the Permit, which provided an absolute bar on discharges into the river absent compliance with an elaborate, multi-page list of precautions and inspections, all of which Respondent ignored. Respondent was not a naïve corporation but one with long experience in large construction projects, including projects involving work in and near rivers. Given Respondent's level of experience, the physical reality that Respondent was scraping dirt on a hill next to a river in the middle of the wet Oregon winter, and the detailed guidance offered by the Permit, Respondent's disregard for the possibility that materials from the Shady Bridge Project would pollute the South Umpqua River was, as the DEQ found, reckless.

Finally, Respondent offered no proof that any automobile accident left Respondent, a corporation with multiple employees at the site, unable to act to correct the violations DEQ pointed out, or that any correction "shortly" thereafter was prompt, more than minimally adequate, or monitored at intervals to assure that there would be no more pollution of the South Umpqua River.

The DEQ's assignment of a value of six to "M" was correct.

The DEQ correctly assigned a value of negative one (-1) to "C" because Respondent did eventually make efforts to correct the violations. OAR 340-012-0145(6).

The economic benefit and the penalty computation

OAR 340-012-0045(2)(e) provides that:

> (e) The appropriate economic benefit (EB) is determined as set forth in OAR 340-012-0150(2). The results of the determinations made in section (1) are applied in the following formula to calculate the penalty: BP + [(0.1 x BP) x (P + H + O + M + C)] + EB.

OAR 340-012-0150(2) provides that the DEQ may make, for use in the applicable model, a reasonable estimate of the benefits gained and the costs avoided or delayed by Respondent. Here, the DEQ reasonably estimated those costs at $315. OAR 340-012-0150(1) provides that 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. The EB may be determined using the U.S. Environmental Protection Agency's BEN computer model. When the BEN computer model was applied to the $20,450 in costs avoided, an economic benefit of $315 was correctly obtained by the DEQ.

Application of the amounts and values to the penalty computation formula in OAR 340-012-0045(2)(e) supports the DEQ's decision to set the civil penalty for Respondent's violations at $24,315 (four violations at $6000 each plus the $315 economic benefit).

ORDER

I propose the DEQ issue the following order:

Respondent is hereby ORDERED TO:

Pay civil penalties of $24,315 for the violations set forth above.

Terrence Murphey
Administrative Law Judge
Office of Administrative Hearings

ISSUANCE AND MAILING DATE: November 3, 2008

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 (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. Service, as defined in Oregon Administrative Rule (OAR) 340-011-0525, means the date that the decision is **mailed** to you, and not the date that you receive it.

The Petition for Review must comply with OAR 340-011-0575 and must be **received** by the Commission within 30 days of the date the Proposed and Final Order was mailed to you. You should mail your Petition for Review to:

Environmental Quality Commission
c/o Dick Pedersen, Director, DEQ
811 SW Sixth Avenue
Portland, OR 97204.

You may also fax your Petition for Review to (503) 229-6762 (the Director's Office).

Within 30 days of filing the Petition for Review, you must also file exceptions and a brief as provided in OAR 340-011-0575. The exceptions and brief must be **received** by the Commission within 30 days from the date the Commission received your Petition for Review. If you file a Petition but not a brief with exceptions, the Environmental Quality Commission may dismiss your Petition for Review.

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 340-011-0575.

Unless you timely file a Petition for Review as set forth above, this Proposed Order becomes the Final Order of the Commission 30 days from the date this Proposed Order is mailed to you. 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 183.480 et. seq.

APPENDIX A
LIST OF EXHIBITS CITED

Ex. D1:	Photographs of Shady Bridge Project site and environs
Ex. D2:	Topographic map of Shady Bridge Project site and environs
Ex. D3:	Drawings of Shady Bridge Project site and environs
Ex. D4:	DEQ's "Technical Basis for Revising Turbidity Criteria" 2005 draft report
Ex. D5:	Report concerning the effects of turbidity on salmon and related fish
Ex. D6:	Designated beneficial uses of the Umpqua basis
Ex. D7:	Chart showing salmon and steelhead spawning locations in and near the South Umpqua River
Ex. D8:	Chart showing Umpqua Basis fish use designations
Ex. D9:	Chart of Endangered Species Act status of west coast salmon and steelhead
Ex. D10:	Chart showing critical habitat areas for salmon and steelhead in Oregon
Ex. D11:	Chart showing land ownership in coastal Oregon
Ex. D12:	Memorandum describing the BEN computer model
Ex. D13:	Erosion and sediment control requirements
Ex. D14:	Excerpt from the Permit
Ex. D15:	Erosion control plan drawings
Ex. D16:	Quality control report and diary
Ex. D17:	February 22, 2006 memo from Construction Manager to Respondent
Ex. D18:	Copy of the Permit
Ex. D19:	April 13, 2006 memo to Respondent from Chris Hunter
Ex. R1:	January 5, 2007 memo from Construction Manager to DEQ
Ex. R2:	Excerpts from the Permit

Ex. R3: Biological assessment report for the Shady Bridge Project

Ex. R4: Aerial photograph of the Shady Bridge Project and environs

Ex. R5: Aerial photograph of the Shady Bridge Project and environs

Ex. R6: Respondent's April 28, 2006 letter to the DEQ

CERTIFICATE OF MAILING

On November 3, 2008, I mailed the foregoing Proposed and Final Order in OAH Case No.700281.

By: First Class and Certified Mail
Certified Mail Receipt #7008 1300 0000 4648 4166

Robert Coleman
Attorney at Law
2300 SW First Ave Ste 200
Portland OR 97201-5047

By: First Class Mail

Courtney Brown
Dept. of Environmental Quality
811 SW 6th Ave
Portland OR 97204

Carol Buntjer for Lucy Garcia
Administrative Specialist
Hearing Coordinator

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
STATE OF OREGON

IN THE MATTER OF:	**ROSS BROTHERS CONSTRUCTION, INC.'S PETITION FOR COMMISSION REVIEW**
ROSS BROTHERS CONSTRUCTION, INC., Respondent	OAH Case No. 700281 Agency Case No.: WQ/SW-WR-06-257 Commission Case No.

PETITION FOR COMMISSION REVIEW

Pursuant to OAR 340-011-0575, Petitioner, Ross Bros. & Company, Inc. ("Ross Bros.") seeks review by the Oregon Environmental Quality Commission of the Corrected Proposed Order of the Office of Administrative Hearings State of Oregon for the Environmental Quality Commission case number SH-07107, dated November 3, 2008.

Attached to this petition as **Exhibit A** is a copy of the proposed order for which commission review is sought.

DATED this 24th day of November, 2008.

STEWART SOKOL & GRAY LLC

By: _____
Robert B. Coleman, OSB # 001554
Aaron M. Hessel, OSB #074113
Of Attorneys for Ross Bros. Construction, Inc.

STEWART SOKOL & GRAY LLC
ATTORNEYS AT LAW
2300 SW FIRST AVENUE, SUITE 200
PORTLAND, OREGON 97201-5047
(503) 221-0699
FAX (503) 223-5706

Attachment D

GENERAL PERMIT
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
STORM WATER DISCHARGE PERMIT

Oregon Department of Environmental Quality
811 SW Sixth Avenue, Portland, OR 97204, (503) 229-5279
Issued pursuant to ORS 468B.050 and The Federal Clean Water Act

ISSUED TO:

All public agencies responsible for construction activities with storm water discharges that are covered by this permit. The submittal of an approved application and payment of applicable fees are required.

SOURCES COVERED BY THIS PERMIT:

All Construction activities including clearing, grading, excavation, and stockpiling activities under the authority or jurisdiction of a public agency that will result in the disturbance of five or more acres. Also included are activities that disturb a total of five or more acres if part of a larger common plan of development.

Effective December 1, 2002 the previously described construction activities will include land disturbance of one acre or more, and will also include activities that disturb a total of one or more acres if part of a larger common plan of development.

This permit does not authorize in-water or riparian work. These activities are regulated by the Oregon Division of State Lands, US Army Corp of Engineers, and/or the DEQ Section 401 certification program.

Michael T. Llewelyn, Administrator
Water Quality Division

Date

PERMITTED ACTIVITIES

Until this permit expires or is modified or revoked, the permittee is authorized to construct, install, modify, or operate erosion and sediment control measures, and storm water treatment and control facilities, and to discharge storm water to public waters in conformance with all the requirements, limitations, and conditions set forth in the attached schedules as follows:

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

SCHEDULE A
LIMITATIONS AND CONTROLS FOR STORM WATER DISCHARGES

1. **Performance Limitations** An Erosion and Sediment Control Plan (ESCP) shall be developed and implemented to prevent the discharge of significant amounts of sediment to surface waters. The following conditions describe significant amounts of sediment and shall be prevented from occurring.

   a. Earth slides or mud flows that leave the construction site and are likely to discharge to surface waters.

   b. Evidence of concentrated flows* of water causing erosion when such flows are not filtered or settled to remove sediment prior to leaving the construction site and are likely to discharge to surface waters. Evidence includes the presence of rills, rivulets or channels.

   c. Turbid flows* of water that are not filtered or settled to remove turbidity prior to leaving the construction site and are likely to discharge to surface waters.

   d. Deposits of sediment at the construction site in areas that drain to unprotected storm water inlets or catch basins that discharge to surface waters. Inlets and catch basins with failing sediment controls due to lack of maintenance or inadequate design will be considered unprotected.

   e. Deposits of sediment from the construction site on public or private streets outside of the permitted construction activity that are likely to discharge to surface waters.

   f. Deposits of sediment from the construction site on any adjacent property outside of the permitted construction activity that are likely to discharge to surface waters.

   * Flow to storm water inlets or catch basins located on the site will be considered "leaving the site" if there are no sediment control structures designed for expected construction flows downstream of the inlets or catch basins that are under the permittee's control.

2. **Erosion and Sediment Control Plan Preparation and Submittal** The permittee shall ensure that a comprehensive ESCP is prepared and implemented for the construction activity regulated by this permit.

   a. A copy of the ESCP shall be retained on-site and made available to the Department upon request. During inactive periods of greater than seven (7) consecutive calendar days, the ESCP shall be retained by the permittee.

   b. The Department may request modifications to the ESCP at any time if the ESCP is ineffective at preventing the discharge of significant amounts of sediment and turbidity to surface waters.

   c. The ESCP shall include any procedures necessary to meet local erosion and sediment control requirements or storm water management requirements.

   d. If possible, during the period of October through May, construction activities should avoid or minimize excavation and bare ground activities. If the operator chooses to continue land disturbance activities within this period, additional wet weather requirements (refer to A.3.d) are required in the ESCP. Specifically, if construction activity occurs during the winter season where slopes are greater than five (5) percent and the soils have medium to high erosion potential additional erosion controls will be required.

e. The following non-storm water discharges are allowed as long as they are identified in the ESCP and all necessary controls are implemented to minimize sediment transport. These include: firefighting activity, hydrant flushing and potable waterline flushing (DEQ guidance must be followed), air conditioning condensate, dewatering activities of uncontaminated groundwater or spring water, and uncontaminated foundation or footer drain water.

3. **Erosion and Sediment Control Plan Requirements** The ESCP shall, at a minimum, include the following elements.

a. Site Description A description of the following:
   i. Nature of the construction activity, including a proposed timetable for major activities.
   ii. Estimates of the total area of the permitted site and the area of the site that is expected to undergo clearing, grading and/or excavation.
   iii. Nature of the fill material to be used, the insitu soils, and the erosion potential of such soils.
   iv. Names of the receiving water(s) for storm water runoff.

b. Site Map Indicating the following: (Note: In order to provide all the required information, a general location map in addition to the site map is required.)
   i. Areas of total development
   ii. Drainage patterns
   iii. Areas of total soil disturbance (including, but not limited to, showing cut and fill areas and pre and post development elevation contours)
   iv. Areas used for the storage of soils or wastes
   v. Areas where vegetative practices are to be implemented. Include type of vegetation seed mix.
   vi. Location of all erosion and sediment control measures or structures
   vii. Location of impervious structures after construction is completed. Include buildings, roads, parking lots, outdoor storage areas, etc., if any.
   viii. Springs, wetlands and other surface waters located on-site
   ix. Boundaries of the 100-year flood plain if determined
   x. Location of storm drainage outfalls to receiving water(s) if applicable
   xi. Location of drinking water wells and underground injection controls
   xii. Details of sediment and erosion controls
   xiii. Details of detention ponds, storm drain piping, inflow and outflow details

c. Required Controls and Practices The following controls and practices are required:
   i. Each site shall have graveled, paved, or constructed entrances, exits and parking areas, prior to beginning any other work, to reduce the tracking of sediment onto public or private roads.
   ii. All unpaved roads located on-site shall be graveled. Other effective erosion and sediment control measures either on the road or down gradient may be used in place of graveling.
   iii. When trucking saturated soils from the site, either water-tight trucks shall be used or loads shall be drained on-site until dripping has been reduced to minimize spillage on roads.
   iv. A description of procedures that describe controls to prevent the discharge of all wash water from concrete trucks.
   v. A description of procedures for correct installation or use of all erosion and sediment control measures.
   vi. A description of procedures for prompt maintenance or repair of erosion and sediment control measures utilized on-site (refer to A.4).

d. Additional Controls and Practices Additional controls and practices shall be developed that are appropriate for the site. At a minimum the following shall be considered:

i. A description of clearing and grading practices, including a schedule of implementation, that will minimize the area of exposed soil throughout the life of the project. Whenever practicable, clearing and grading shall be done in a phased manner to prevent exposed inactive areas from becoming a source of erosion.

ii. A description of vegetative erosion control practices, including a schedule of implementation, designed to preserve existing vegetation where practicable and re-vegetate open areas when practicable after grading or construction.

In developing vegetative erosion control practices, at a minimum the following shall be considered: temporary seeding, permanent seeding, mulching, sod stabilization, vegetative buffer strips, and protection of trees with protective construction fences.

iii. A description of additional erosion control practices, including a schedule of implementation, designed to protect exposed areas and prevent soil from being eroded by storm water.

In developing additional erosion control practices, at a minimum the following shall be considered: mulching with straw or other vegetation, use of erosion control blankets, and application of soil tackifiers.

iv. A description of sediment control practices, including a schedule of implementation, that will be used to divert flows from exposed soil, store flows to allow for sedimentation, filter flows, or otherwise reduce soil laden runoff. All temporary sediment control practices shall not be removed until permanent vegetation or other cover of exposed areas is established.

In developing sediment control practices, at a minimum the following shall be considered: use of silt fences, earth dikes, brush barriers, drainage swales, check dams, subsurface drains, pipe slope drains, rock outlet protection, sediment traps, and temporary or permanent sedimentation basins.

v. A description of erosion and sediment control practices that will be used to prevent stockpiles from becoming a source of erosion. Stockpiles located away from the construction activity but still under the control of the permittee shall also be protected to prevent significant amounts of sediment from discharging to surface waters. At the end of each workday the soil stockpiles must be stabilized or covered.

In developing these practices, at a minimum the following shall be considered: diversion of uncontaminated flows around stockpiles, use of cover over stockpiles, and installation of silt fences around stockpiles.

vi. A description of the best management practices that will be used to prevent or minimize storm water from being exposed to pollutants from spills, cleaning and maintenance activities, and waste handling activities. These pollutants include fuel, hydraulic fluid, and other oils from vehicles and machinery, as well as debris, leftover paints, solvents, and glues from construction operations. The reuse and recycling of construction wastes should be promoted.

In developing these practices, at a minimum the following shall be considered: written spill prevention and response procedures; employee training on spill prevention and proper disposal procedures; regular maintenance schedule for vehicles and machinery; and covered storage areas for waste and supplies.

4. **Maintenance Requirements** The following maintenance activities shall be implemented.

   a. Significant amounts of sediment that leave the site shall be cleaned up within 24 hours and placed back on the site or properly disposed. Any in-stream clean up of sediment shall be performed according to Oregon Division of State Lands' required timeframe.

   b. Under no conditions shall sediment be intentionally washed into storm sewers or drainageways unless it is captured by a BMP before entering receiving waters.

   c. For a filter fence, the trapped sediment shall be removed before it reaches one third of the above ground fence height.

   d. For catch basin protection, cleaning must occur when design capacity has been reduced by fifty percent.

   e. For a sediment basin, removal of trapped sediments shall occur when design capacity has been reduced by fifty percent.

   f. All erosion and sediment controls not in the direct path of work shall be installed before any land disturbance.

   g. If fertilizers are used to establish vegetation, the application rates shall follow manufacture's guidelines and the application shall be done in such a way to minimize nutrient-laden runoff to receiving waters.

   h. If construction activities cease for thirty (30) days or more, the entire site must be stabilized, using vegetation or a heavy mulch layer, temporary seeding, or another method that does not require germination to control erosion.

   i. Any use of toxic or other hazardous materials shall include proper storage, application, and disposal.

   j. The permittee shall manage abandoned hazardous wastes, used oils, contaminated soils or other toxic substances discovered during construction activities in a manner approved by the Department.

   k. If a storm water treatment system for construction activities is employed, the operation and maintenance plan shall be submitted to the Department for approval.

5. **Additional Requirements**

   a. Water Quality Standards:
   The ultimate goal for permittees is to comply with water quality standards in OAR 340-41. In instances where a storm water discharge adversely impacts water quality, the Department may require the facility to implement additional management practices, apply for an individual permit, or take other appropriate action.

   b. Turbidity (Nephelometric Turbidity Units, NTU) Water Quality Standard:
   No more than a ten percent cumulative increase in natural stream turbidities shall be allowed, as measured relative to a control point immediately upstream of the turbidity causing activity. However, limited duration activities necessary to address an emergency or to accommodate essential dredging, construction or other legitimate activities and which cause the standard to be

exceeded may be authorized provided all practicable turbidity control techniques have been applied and one of the following has been granted:

(A) Emergency activities: Approval coordinated by DEQ with the Department of Fish and Wildlife under conditions they may prescribe to accommodate response to emergencies or to protect public health and welfare;

(B) Dredging, Construction or other Legitimate Activities: Permit or certification authorized under terms of Section 401 or 404 (Permits and Licenses, Federal Water Pollution Control Act) or OAR 141-085-0100 et seq. (Removal and Fill Permits, Division of State Lands), with limitations and conditions governing the activity set forth in the permit or certificate.

[see OAR 340-041-(basin)(2)(c)]

c. Water Quality Limited Streams:
The Department may establish additional controls on construction activities that discharge storm water runoff to water quality limited streams if Total Maximum Daily Loads are established and construction activities are determined to be a significant contributor to these loads. The Department may also require application for individual permit or develop a watershed-based general permit for the activity.

SCHEDULE B
MINIMUM MONITORING REQUIREMENTS

All Sites

1. A person with knowledge and experience in construction storm water controls and management practices shall conduct the inspections. The ESCP shall identify the person(s) and/or title of the personnel that will conduct the inspections and provide a contact phone number for such person(s).

Active Sites

2. Frequency of inspections shall be daily during storm water runoff or snowmelt runoff and at least once every seven (7) calendar days and within 24 hours after any storm event of greater than 0.5 inches of rain per 24-hour period.

Inactive Sites

3. During inactive periods of greater than seven (7) consecutive calendar days, inspections shall only be required once every two (2) weeks.

4. Prior to discontinuing activities at the site, any exposed area shall be stabilized to prevent erosion. Stabilization may occur by applying appropriate cover (mulch, erosion control blanket, soil tackifier, etc.) or establishing adequate vegetative cover.

5. When a site is inaccessible due to adverse weather conditions, inspections shall not be required. Adverse weather condition shall be recorded on the inspection sheet.

6. Prior to leaving an inactive site or in anticipation of site inaccessibility, existing erosion and sediment control measures shall be inspected to ensure that they are in working order. Any necessary maintenance or repair shall be made prior to leaving the site.

Written Records

7. All visual inspections must document the following information:

   a. Inspection date, inspector's name, weather conditions, and rainfall amount for past 24 hours (inches). (Rainfall information can be obtained from the nearest weather recording station.)

   b. List observations of all BMPs: erosion and sediment controls, chemical and waste controls, locations where vehicles enter and exit the site, status of areas that employ temporary or final stabilization control, soil stockpile area, and nonstormwater controls.

   c. At representative discharge location(s) from the construction site conduct observation and document the quality of the discharge for any turbidity, color, sheen, or floating materials. If possible, in the receiving stream, observe and record color and turbidity or clarity upstream and downstream within 30 feet of the discharge from the site. For example, a sheen or floating material could be noted as present/absent, if observation is yes, it could indicate concern about a possible spill and/or leakage from vehicles or materials storage. For turbidity and color an observation would describe any apparent color and the clarity of the discharge, and any apparent difference in comparison with the receiving stream.

d. If significant amounts of sediment are leaving the property, briefly explain the corrective measures taken to reduce the discharge and/or clean it up and describe efforts to prevent future releases. The ESCP shall be amended accordingly.

e. If a site is inaccessible due to inclement weather the inspection shall include observations at a relevant discharge point or downstream location, if practical.

8. All inspection records for an active site shall be kept on-site or be maintained with the permittee, and shall made available to the Department, its Agent, or local municipality upon request.

9. A written record of inspections for an inactive site shall be maintained with the permittee and made available to the Department, its Agent, or local municipality upon request.

10. Retention of all inspection records shall be for a period of one year from project completion.

SCHEDULE C
COMPLIANCE SCHEDULE

1. Registration of Underground Injection Systems (40 CFR 144 and OAR 340-044). The permittee shall submit to DEQ a registration form if construction activities include disposal of storm water or other wastewater discharges to an injection system. These types of disposal systems are classified under the Underground Injection Control Program as a Class V well, require registration, and must meet Division 44 standards.

   a. A new permittee shall register any applicable underground treatment systems **prior to** the construction of a new facility.

   b. For facilities covered by the previous 1200-CA permit the registration form is due within **thirty (30) days** after receipt of this new 1200-CA permit.

SCHEDULE D
SPECIAL CONDITIONS

1. Issuance of this permit does not relieve the permittee from all other permitting and licensing requirements. Prior to beginning construction activities, all other necessary approvals shall be obtained.

2. The permit will remain in effect after the expiration date or until another permit is issued if the permittee has paid all fees and has filed a renewal application.

3. Any permittee that does not want to be covered or limited by this general permit may make application for an individual NPDES permit in accordance with the procedures in OAR 340-45-030.

4. Permit Specific Definitions:

Best Management Practices (BMPs) Schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural and/or managerial practices to prevent or reduce the pollution of waters of the state. BMPs include treatment systems, erosion and sediment control, source control, and operating procedures and practices to control: site runoff, spillage or leaks, and waste disposal.

Dewatering The removal and disposal of surface water or groundwater for purposes of preparing a site for construction.

Erosion The movement of soil particles resulting from the tracking, flow or pressure from storm water or wind.

Grade Construction activity that causes the disturbance of the earth. This shall include but not be limited to any excavating, filling, stockpiling of earth materials, grubbing, root mat or topsoil disturbance, or any combination of them.

Hazardous Materials As defined in 40 CFR 302 Designation, Reportable Quantities, and Notification. Available on the web at http://www.epa.gov.

Phasing Clearing a parcel of land in distinct phases, with the stabilization of each phase before clearing of the next phase; including soil stockpiling.

Stabilization The completion of all soil disturbance activities at the site and the establishment of a permanent vegetative cover, or equivalent permanent stabilization measures (such as riprap, gabions, geotextiles, or bioengineering methods) that will prevent erosion.

Start of Construction The first land-disturbing activity associated with a development, including land preparation such as clearing, grading, excavation, and filling; installation of streets and walkways; erection of temporary forms; and installation of accessory buildings such as garages.

Storm Water Storm water runoff, snow melt runoff, and surface runoff associated with a storm event.

Turbidity An expression of the optical property of a sample which causes light to be scattered and absorbed rather than transmitted in a straight line through the sample. It is caused by the presence of suspended matter in a liquid.

SCHEDULE F
NPDES GENERAL CONDITIONS

SECTION A. STANDARD CONDITIONS

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

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

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

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

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

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

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

5. Permit Actions
This permit may be modified, suspended, revoked and reissued, or terminated for cause including, but not limited to, the following:

a. Violation of any term, condition, or requirement of this permit, a rule, or a statute;
b. Obtaining this permit by misrepresentation or failure to disclose fully all material facts; or
c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

The filing of a request by the permittee for a permit modification or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

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

7. Property Rights
The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.

8. Permit References
Except for effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants and standards for sewage sludge use or disposal established under Section 405(d) of the Clean Water Act, all rules and statutes referred to in this permit are those in effect on the date this permit is issued.

SECTION B. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. Proper Operation and Maintenance
The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls, and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary

facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

2. Duty to Halt or Reduce Activity
For industrial or commercial facilities, upon reduction, loss, or failure of the treatment facility, the permittee shall, to the extent necessary to maintain compliance with its permit, control production or all discharges or both until the facility is restored or an alternative method of treatment is provided. This requirement applies, for example, when the primary source of power of the treatment facility fails or is reduced or lost. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

3. Bypass of Treatment Facilities
   a. Definitions
      (1) "Bypass" means intentional diversion of waste streams from any portion of the treatment facility. The term "bypass" does not include nonuse of singular or multiple units or processes of a treatment works when the nonuse is insignificant to the quality and/or quantity of the effluent produced by the treatment works. The term "bypass" does not apply if the diversion does not cause effluent limitations to be exceeded, provided the diversion is to allow essential maintenance to assure efficient operation.
      (2) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities or treatment processes which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

   b. Prohibition of bypass.
      (1) Bypass is prohibited unless:
         (a) Bypass was necessary to prevent loss of life, personal injury, or severe property damage;
         (b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance; and
         (c) The permittee submitted notices and requests as required under General Condition B.3.c.
      (2) The Director may approve an anticipated bypass, after considering its adverse effects and any alternatives to bypassing, when the Director determines that it will meet the three conditions listed above in General Condition B.3.b.(1).

   c. Notice and request for bypass.
      (1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior written notice, if possible at least ten days before the date of the bypass.
      (2) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in General Condition D.5.

4. Upset
   a. Definition. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operation error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or careless or improper operation.

   b. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of General Condition B.4.c are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

   c. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
      (1) An upset occurred and that the permittee can identify the causes(s) of the upset;
      (2) The permitted facility was at the time being properly operated;
      (3) The permittee submitted notice of the upset as required in General Condition D.5, hereof (24-hour notice); and
      (4) The permittee complied with any remedial measures required under General Condition A.3 hereof.

   d. Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

5. Treatment of Single Operational Event
For purposes of this permit, A Single Operational Event which leads to simultaneous violations of more than one pollutant parameter shall be treated as a single violation. A single operational event is an exceptional incident which causes simultaneous, unintentional, unknowing (not the result of a knowing act or omission),

temporary noncompliance with more than one Clean Water Act effluent discharge pollutant parameter. A single operational event does not include Clean Water Act violations involving discharge without a NPDES permit or noncompliance to the extent caused by improperly designed or inadequate treatment facilities. Each day of a single operational event is a violation.

6. Overflows from Wastewater Conveyance Systems and Associated Pump Stations
   a. Definitions
      (1) "Overflow" means the diversion and discharge of waste streams from any portion of the wastewater conveyance system including pump stations, through a designed overflow device or structure, other than discharges to the wastewater treatment facility.
      (2) "Severe property damage" means substantial physical damage to property, damage to the conveyance system or pump station which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of an overflow.
      (3) "Uncontrolled overflow" means the diversion of waste streams other than through a designed overflow device or structure, for example to overflowing manholes or overflowing into residences, commercial establishments, or industries that may be connected to a conveyance system.

   b. Prohibition of overflows. Overflows are prohibited unless:
      (1) Overflows were unavoidable to prevent an uncontrolled overflow, loss of life, personal injury, or severe property damage;
      (2) There were no feasible alternatives to the overflows, such as the use of auxiliary pumping or conveyance systems, or maximization of conveyance system storage; and
      (3) The overflows are the result of an upset as defined in General Condition B.4. and meeting all requirements of this condition.

   c. Uncontrolled overflows are prohibited where wastewater is likely to escape or be carried into the waters of the State by any means.

   d. Reporting required. Unless otherwise specified in writing by the Department, all overflows and uncontrolled overflows must be reported orally to the Department within 24 hours from the time the permittee becomes aware of the overflow. Reporting procedures are described in more detail in General Condition D.5.

7. Public Notification of Effluent Violation or Overflow
   If effluent limitations specified in this permit are exceeded or an overflow occurs, upon request by the Department, the permittee shall take such steps as are necessary to alert the public about the extent and nature of the discharge. Such steps may include, but are not limited to, posting of the river at access points and other places, news releases, and paid announcements on radio and television.

8. Removed Substances
   Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in such a manner as to prevent any pollutant from such materials from entering public waters, causing nuisance conditions, or creating a public health hazard.

SECTION C. MONITORING AND RECORDS

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

SECTION D. REPORTING REQUIREMENTS

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

2. Anticipated Noncompliance

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

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

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

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

A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. If the permittee is establishing an affirmative defense of upset or bypass to any offense under ORS 468.922 to 468.946, and in which case if the original reporting notice was oral, delivered written notice must be made to the Department or other agency with regulatory jurisdiction within 4 (four) calendar days. The written submission shall contain:
a. A description of the noncompliance and its cause;
b. The period of noncompliance, including exact dates and times;
c. The estimated time noncompliance is expected to continue if it has not been corrected;
d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance; and
e. Public notification steps taken, pursuant to General Condition B.7.

The following shall be included as information which must be reported within 24 hours under this paragraph:
a. Any unanticipated bypass which exceeds any effluent limitation in this permit.
b. Any upset which exceeds any effluent limitation in this permit.
c. Violation of maximum daily discharge limitation for any of the pollutants listed by the Director in this permit.

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

6. Other Noncompliance
The permittee shall report all instances of noncompliance not reported under General Condition D.4 or D.5, at the time monitoring reports are submitted. The reports shall contain:
a. A description of the noncompliance and its cause;
b. The period of noncompliance, including exact dates and times;
c. The estimated time noncompliance is expected to continue if it has not been corrected; and
d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

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

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

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

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

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

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

11. Changes to Discharges of Toxic Pollutant - **[Applicable to existing manufacturing, commercial, mining, and silvicultural dischargers only]**
The permittee must notify the Department as soon as they know or have reason to believe of the following:

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

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

SECTION E. DEFINITIONS

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

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STEWART SOKOL & GRAY LLC

ATTORNEYS AT LAW

John Spencer Stewart PC *†◊▫
Jan D. Sokol*†▫
Arnold L. Gray †·
Thomas A. Larkin*◊▫
Angela M. Otto*

2300 SW FIRST AVENUE
SUITE 200
PORTLAND, OREGON 97201-5047
(503) 221-0699
FAX (503) 223-5706
www.lawssg.com

Robert B. Coleman*
Lawrence A. Wagner*
Tyler J. Storti▫*
Scott D. Schnuck
Aaron M. Hessel
David A. Gilbert

All Members of Oregon Bar
* Washington Bar
† District of Columbia Bar
◊ Alaska Bar
▫ Idaho Bar

Email: rcoleman@lawssg.com

February 3, 2009

Via Hand-Delivery
Stephanie Clark, Assistant to the Commission
Oregon Environmental Quality Commission
811 SW Sixth Avenue
Portland, OR 97204-1390

Re: Ross Bros./DEQ Appeal; Our File No. 7687.026
In the Matter of Ross Brothers Construction, Inc.
OAH Case No. 700281
DEQ Case No. WQ-SW-WR-06-257

Dear Ms. Clark:

In accordance with Mr. Coleman's request, enclosed please find an original and one copy of Ross Brothers Construction, Inc.'s Exceptions and Brief in the above-referenced matter. Please file the original with the Commission, and return the remaining copy (only 1st page provided) conformed as to the date of filing in the self-addressed, stamped envelope enclosed.

Thank you in advance for your assistance.

Very truly yours,

STEWART SOKOL & GRAY LLC

Desiree East
Assistant to Robert B. Coleman

RECEIVED
FEB 03 2009
Oregon DEQ
Office of the Director
Item D 000050

7687.026-00209198; 1

RBC:de
Enclosure
cc: Courtney Brown (w/enc. via hand-delivery)
Robert B. Coleman (w/o enc.)
Aaron M Hessel (w/o enc.)
John Spencer Stewart (w/o enc.)

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
STATE OF OREGON

IN THE MATTER OF:	**ROSS BROTHERS CONSTRUCTION, INC.'S EXCEPTIONS AND BRIEF**
ROSS BROTHERS CONSTRUCTION, INC., **Respondent**	OAH Case No. 700281 Agency Case No.: WQ/SW-WR-06-257 Commission Case No.

EXCEPTIONS AND BRIEF

Respondent, Ross Bros. & Company, Inc. "Ross Bros." respectfully submits the following combined Exceptions and Brief for the Commission's Review under OAR 340-011-0575. Ross Bros. appreciates the Commission's granting of additional time to file this combined Exceptions and Brief while Ross Bros. obtained and had transcribed the recorded hearing. The entire transcript is attached as Exhibit A for the Commission's convenience. [1]

For the reasons that follow, the Corrected Proposed and Final Order (the "Order) dated November 3, 2008 should be rejected in its entirety, and no penalty assessed, or in the alternative, the penalty assessed should be reduced to $877.50.

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[1]The transcript is cited as "Tr." followed by page numbers and line numbers, e.g., Tr. 1:4-2:23 would refer to page one, line 4, through page 2, line 23.

STEWART SOKOL & GRAY LLC
ATTORNEYS AT LAW
2300 SW FIRST AVENUE, SUITE 200
PORTLAND, OREGON 97201-5047
(503) 221-0699
FAX (503) 223-5706

I. First Exception

A. Exception

Ross Bros. objects to the finding(s) and conclusion(s) that Permit Number 1200-CA, the National Pollutant Discharge Elimination System ("NPDES") General Permit (the "Permit") applicable to the Shady Bridge Project did not apply to and/or cover Ross Bros. activities, including those that resulted in the violations alleged by the DEQ and found in the Order.

The findings and conclusions objected to in Ross Bros.' First Exception are found at various points in the Order, including, but not limited to, at 2 ("Respondent had no [NPDES] Permit covering Respondent's activities at the Shady Bridge Project."); 3 ("Respondent had no permit of its own."); and 6 ("no evidence that the terms of the Permit either expressly or impliedly covered Respondent's activities, and no authority or evidence establishing that Respondent 'stood in the shoes' of ODOT as a holder of the Permit as a matter of law or at all."). Ross Bros. objects to all such findings and conclusions, and those related to them.

B. Alternative Finding and Conclusion

As the general contractor performing the work of the Shady Bridge Project, the Permit applies to and covers Ross Bros.' activities, including, but not limited to, those that resulted in the violations alleged by the DEQ and found in the Order.

C. Arguments Supporting Alternative Finding and Exception

Ross Bros. was the general contractor for the Shady Bridge Project. See Order at 2, Finding of Fact 1. The Shady Bridge Project was covered by the Permit. See Order at 2, Finding of Fact 2 ("The Shady Bridge Project was covered by Permit

STEWART SOKOL & GRAY LLC
ATTORNEYS AT LAW
2300 SW FIRST AVENUE, SUITE 200
PORTLAND, OREGON 97201-5047
(503) 221-0699
FAX (503) 223-5706

Number 1200-CA . . . .”). For the following reasons, these facts demonstrate that the Permit applies to and covers all of Ross Bros.' activities at the Shady Bridge Project, as a matter of law.

First, the Permit states:

SOURCES COVERED BY THIS PERMIT:

All Construction activities including clearing, grading, excavation, and stockpiling activities under the authority or jurisdiction of a public agency . . . .

Exhibit D18 at 1. Ross Bros., as general contractor, controlled the construction activities at issue under the authority or jurisdiction of ODOT. See Order at 2, Findings of Fact 4. Such “activities” ***expressly*** are “***SOURCES COVERED BY THIS PERMIT***.” ODOT performs no construction activities of its own; rather, its general contractor performs construction activities. It is unclear how the Permit could more clearly state that Ross Bros.' activities on the Shady Bridge Project are “covered” by it.

Second, OAR 340-045-0015 provides that “(1) Without first obtaining a permit from the Director, a person may not: . . . (d) Construct, install, operate, or conduct any industrial, commercial, or other establishment or activity or any extension or modification thereof or addition thereto if the operation or conduct would cause an increase in the discharge of wastes into the waters of the state or would otherwise unlawfully alter the physical, chemical, or biological properties of any waters of the state.” “Person,” is defined for permitting to include “private corporation . . . or other legal entity.” OAR 340-045-0010(15). Ross Bros. is a “person,” as are all general contractors who perform work for the Oregon Department of Transportation. ***If*** NPDES permits obtained for a bridge project such as this one do not apply to and cover the

STEWART SOKOL & GRAY LLC
ATTORNEYS AT LAW
2300 SW FIRST AVENUE, SUITE 200
PORTLAND, OREGON 97201-5047
(503) 221-0699
FAX (503) 223-5706

activities of the general contractor who performs the work, ***then*** every general contractor violates OAR 340-045-0015 in every instance that ODOT, not the general contractor, obtains the NPDES permit. This is not and could not be the law.

Third, ODOT commissioned a "Biological Assessment of I-5 Overcrossing: South Umpqua River and OR 99 (Shady) Bridge Replacement Project." Exhibit R3 ("Biological Assessment"). The Biological Assessment provides "Amendments to [ODOT's] Standard Specifications," including:

> *7.2.1 Section 00170 – Legal Relations and Responsibilities*
> 1. Be fully informed of the conditions of the General Conditions in the NPDES permit, ***which governs operations, and conduct construction operations accordingly.***
> 2. Maintain a copy of the General Conditions at the construction site. These will be made available to the operating personnel during construction activities.

Id. (emphasis by italics only in original, other emphasis added). Clearly, if the Permit did not apply to and cover Ross Bros.' activities, ODOT's standard specifications would not have been amended with a statement that the Permit "governs operations." If the Permit did not apply to and cover Ross Bros.' activities, Ross Bros.' would have no reason to be "informed of" its conditions, no reason to "conduct construction operations accordingly," and no reason to make the Permit available "during construction activities."

Fourth, the practicalities of constructing the most bridges, including the Shady Bridge, demonstrate that the Permit must apply to and cover Ross Bros.' activities. When a bridge is built, the contractor must perform "in water work" as part of the construction. The in water work includes constructing a "work bridge," usually by driving heavy steel I-beams into the river bottom, and then attaching steel supports to those

STEWART SOKOL & GRAY LLC
ATTORNEYS AT LAW
2300 SW FIRST AVENUE, SUITE 200
PORTLAND, OREGON 97201-5047
(503) 221-0699
FAX (503) 223-5706

I-beams. Construction of a new bridge span, especially for a poured in place concrete bridge like the Shady Bridge, also requires construction of "falsework." Falsework supports the wooden forms built around rebar, into which concrete is poured. Falsework usually is supported by heavy steel I-beams driven into the river bottom, like the work bridge. Bridge work also includes demolition of old bridges, which, again, usually requires a work bridge. Bridge work also includes pouring footings, frequently within the limits of the river being bridged. All of these activities require excavation, grading, and/or clearing of ground near the river, so that work bridges can be constructed, and access to the bridge work provided. See, generally, Exhibit R3 at 6-9 (Biological Assessment) (describing likely construction plan of the Shady Bridge Project).

All of these activities "would cause an increase in the discharge of wastes into waters of the state . . . ." OAR 340-045-0015(1)(d). If a permit issued to ODOT did not cover the entities that perform the construction, from the general contractor down, then those entities would violate OAR 340-045-0015 by performing contractually required work. Of course, no one suggests that Ross Bros.' violated OAR 340-045-0015 by constructing a work bridge, constructing falsework, pouring footings, excavating, cutting, grading, and/or clearing the site of work.

Accordingly, the Commission must overrule the Order's findings and conclusions, and accept Ross Bros. alternative findings and conclusions with respect to Ross Bros.' First Exception.

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STEWART SOKOL & GRAY LLC
ATTORNEYS AT LAW
2300 SW FIRST AVENUE, SUITE 200
PORTLAND, OREGON 97201-5047
(503) 221-0699
FAX (503) 223-5706

III. Second Exception

A. Exception

Ross Bros. objects to the finding and conclusion that DEQ did not have to prove, by measurement, a ten percent increase in natural stream turbidities. See Order at 5 and 6 ("To avail itself of the language in the permit concerning an increase of ten percent or less in turbidity, Respondent needed to establish that its activities were covered by the Permit and that its activities were not in violation of the Permit.").

B. Alternative Finding and Conclusion

Because, as demonstrated above, the Permit covered Ross Bros.' activities, DEQ had the burden of proving that Ross Bros.' activities caused a ten percent increase in natural stream turbidities. DEQ failed to carry its burden of proof because it failed to measure the discharges that form the basis of its enforcement action. Accordingly, Ross Bros. cannot be liable and no penalty may be assessed against Ross Bros. with respect to DEQ's allegations.

C. Arguments Supporting Alternative Finding and Conclusion

The Order correctly concludes that "DEQ offered too little evidence to establish that the flow of turbid water into the South Umpqua River which resulted caused 'more than a ten percent cumulative increase in natural stream turbidities' on any of the dates in issue." Order at 5. See also Tr. 51:22-23 (Testimony of P. Kennedy) ("I didn't have a turbidity meter with me at the time."); Tr. 95:14-16 (Testimony of P. Kennedy) ("Q. You didn't measure the turbidity of the water above the site or above the discharge, is that correct? A. I looked at the water above the site. I looked at the South Umpqua. Q. I'm asking if you measured it. A. Did I measure it, no."); Tr. 115:10-116:23 (Testimony

STEWART SOKOL & GRAY LLC
ATTORNEYS AT LAW
2300 SW FIRST AVENUE, SUITE 200
PORTLAND, OREGON 97201-5047
(503) 221-0699
FAX (503) 223-5706

of Rosetta) ("Q. That section [draft report, p 12, 2.2.1] and the whole of it speaks of measuring turbidity, including relative turbidity of two different parts of the same body of water ***using some kind of a meter***, is that correct? A. Yes, that is correct . . . . Q. In the second paragraph, there is a sentence that says typically nephelometers . . . . detect light scattered by a water sample, usually at 90 degrees to the instant beam, so that's talking about ***measuring turbidity of a sample of water with some sort of meter or device***, is that correct? A. Yes.") (emphasis added).

As demonstrated above, the Permit covered and applies to Ross Bros.' activities. The Permit provides "***No more than a ten percent cumulative increase in natural stream turbidities shall be allowed, as measured*** relative to a control point immediately upstream of the turbidity causing activity." Exhibit D18 at 6. Accordingly, the Permit allows a ten percent cumulative increase in turbidity, and requires measurement of turbidity at a "control point" and at the turbidity causing activity to establish a violation. The Permit further provides that "[u]ntil this permit expires or is modified or revoked, the permittee is authorized to . . . discharge storm water to public waters in conformance with all the requirements, limitations, and conditions set forth in the attached schedules as follows: . . . Schedule A - Limitations and Controls for Storm Water Discharges." Id. at 1. The language from page 6 of the Permit is part of "Schedule A." Accordingly, the Permit ***must*** be read to allow discharges of storm water into the South Umpqua so long as those discharges are not ***measured*** to increase the then-existing natural turbidity by ***more than 10%***.

Under OAR 340-011-0545, which applies to hearings such as the one appealed here, ***DEQ*** had the burden of proving that Ross Bros. violated the Permit by causing a

STEWART SOKOL & GRAY LLC
ATTORNEYS AT LAW
2300 SW FIRST AVENUE, SUITE 200
PORTLAND, OREGON 97201-5047
(503) 221-0699
FAX (503) 223-5706

measured, ten percent increase in the South Umpqua's turbidity. That administrative rule provides: "(1) The participant who asserts a fact or position is the proponent of that fact or position and has the burden of presenting evidence to support that fact or position. (2) All findings in a proposed or final order must be based on preponderance of evidence in the record unless another standard is specifically required by statute or rule." DEQ advanced the position that Ross Bros. impermissibly allowed turbid storm water to discharge into the South Umpqua. Since the Permit applies, DEQ had the burden of presenting evidence in support of its position, and the Order can find Ross Bros. liable only if a preponderance of the evidence in the record presented by DEQ supports the finding.

Here, the Administrative Law Judge correctly and expressly concludes that DEQ ***failed*** to prove a ten percent increase in turbidity by a preponderance of the evidence. Order at 5. The DEQ therefore failed to prove, by a preponderance of the evidence, any violation of the Permit. Accordingly, the Commission must overrule the Order's findings and conclusions, and accept Ross Bros. alternative findings and conclusions with respect to Ross Bros.' Second Exception.

III. Third Exception

A. Exception

Ross Bros. objects to the finding and conclusion that Ross Bros. violated ORS 468B.025(1)(a), and the assessment of any penalty based on that finding. See Order at 3.

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STEWART SOKOL & GRAY LLC
ATTORNEYS AT LAW
2300 SW FIRST AVENUE, SUITE 200
PORTLAND, OREGON 97201-5047
(503) 221-0699
FAX (503) 223-5706

B. Alternative Finding and Conclusion

DEQ's failure to provide notice of or allege violation of the Permit precludes assessment of any penalty against Ross Bros.

C. Arguments Supporting Alternative Finding and Conclusion

The DEQ provided notice of and alleged a violation only of ORS 468B.025(1)(a). See, e.g., DEQ's Notice of Violation and Civil Penalty Assessment (Nov. 30, 2007). That statute provides that "no person shall: (a) Cause pollution of any waters of the state or place or cause to be placed any wastes in a location where such wastes are likely to escape or be carried into the waters of the state by any means."

This provision is not applicable when a permit applies and covers the activities of the person alleged to have engaged in a violation. This is so because permits, by their nature, allow some pollution and allow some placing of wastes; that is their purpose. For that very reason, ORS 468B.025(2) provides that "No person shall violate the conditions of any waste discharge permit issued under ORS 468B.050." As demonstrated above, the Permit in this case does allow discharge of some pollution. Simply, DEQ failed, fatally, to allege a violation of the Permit.

The finding and conclusion that Ross Bros. violated ORS 468B.025(1)(a) is inappropriate, because that statute does not apply. No penalty may be assessed based on violation of an inapplicable statute. Accordingly, the Commission must overrule the Order's findings and conclusions, and accept Ross Bros. alternative findings and conclusions with respect to Ross Bros.' Third Exception.

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STEWART SOKOL & GRAY LLC
ATTORNEYS AT LAW
2300 SW FIRST AVENUE, SUITE 200
PORTLAND, OREGON 97201-5047
(503) 221-0699
FAX (503) 223-5706

IV. Fourth Exception

A. Exception

Ross Bros. objects to the finding and conclusion that "A penalty of $24,315 is appropriate pursuant to OAR 340-012-0055(1)(a) and OAR 340-012-0045."

B. Alternative Finding and Conclusion

If DEQ met its standard of proof of violations occurring on four days during the Shady Bridge Project, which it did not, the proper finding is that the correct penalty is $2,565.00 ($562.50 for each of the four alleged violations, plus an economic benefit of $315).

C. Argument Supporting Alternative Finding and Conclusion

1. Any Violation Was A Class II Violation

Assuming any penalty is proper, which none is, calculation of a proper penalty requires a determination of the Class of the violation at issue.

Under the applicable OARs, which were submitted by DEQ at the hearing, the evidence establishes without doubt that any violation was a "Class II" violation. According to the Order, Ross Bros.' violation was a "Class I" violation because Ross Bros. "caus[ed] pollution of the waters of the state." OAR 340-012-055(1)(a). However, a "Class II" violation specifically includes "[p]lacing wastes such that the wastes are likely to enter public waters by any means." OAR 340-012-055(2)(c). Ross notes that ORS 468B.025(1)(a) draws the same distinction, by providing it is a violation to: "Cause pollution of any waters of the state ***or place or cause to be placed any wastes in a location where such wastes are likely to escape or be carried into the waters of the state by any means.***" See Jordan v. SAIF Corp., 343 Or. 208 (2007) ("When

STEWART SOKOL & GRAY LLC
ATTORNEYS AT LAW
2300 SW FIRST AVENUE, SUITE 200
PORTLAND, OREGON 97201-5047
(503) 221-0699
FAX (503) 223-5706

general and particular provisions of a statue are inconsistent, the particular provision controls.").

In addition, as established above, the Permit applied to and covered Ross Bros. construction activities. Accordingly, the "$2,500 Penalty Matrix" in OAR 340-012-140(4) (at page 47 of DEQ's "old rules") applies. See OAR 340-012-140(4)(a)(E)(ii) ($2500 matrix applies when "[a] person . . . has . . . a NPDES Stormwater Discharge 1200-C General Permit for a construction site that is more than one, but less than five acres") (at page 48 of DEQ's "old rules"). Since the $2,500 matrix applies to this permit-based case, and as DEQ alleges that the violation is "Moderate," and because the violation is Class II, the base penalty can only be $625 under OAR 340-012-140(4)(b)(B)(ii).

2. Ross Was Not Reckless

Assuming any penalty is proper, which none is, calculation of a proper penalty requires a determination of the mental state of the person alleged to be in violation.

Under OAR 340-012-0030(17):

> "Reckless" or "Recklessly" means the respondent consciously disregarded a substantial or unjustifiable risk that the result would occur or that the circumstance existed. The risk must be of such a nature and degree that disregarding that risk constituted a gross deviation from the standard of care a reasonable person would observe in that situation.

(DEQ's "old rules" at page 4).

The evidence at the hearing established that just before the discharges alleged by DEQ, there was a 100-year flood caused by very wet weather in Southern Oregon. That same flood destroyed Ross Bros' work bridge, which caused significant

STEWART SOKOL & GRAY LLC
ATTORNEYS AT LAW
2300 SW FIRST AVENUE, SUITE 200
PORTLAND, OREGON 97201-5047
(503) 221-0699
FAX (503) 223-5706

environmental concerns, but no violation of any law. That same wet weather caused unanticipated flows of water from the "B line cut," of sufficient volume and intensity to wash some fines from the dirt associated with the B line cut into the hillside. Ross Bros. had previously separated the dirt and placed it where Ross Bros. reasonably thought it would not run off into the South Umpqua. The evidence at the hearing also established that on the day DEQ's Mr. Kennedy first noticed the discharge, Ross Bros. was responding to an automobile accident involving a project traffic control device that was a danger to the traveling public. The evidence at the hearing also established that Ross Bros. began to take corrective measures very shortly after Mr. Kennedy brought the discharge to Ross Bros.' attention, and, when those measures did not prove fully effective, followed Mr. Kennedy's advice in installing additional measures. See Tr. 244:14-265:13.

These facts, collectively, indicate that Ross Bros. was not "reckless." Ross Bros. did not "consciously disregard" a risk of "such a nature and degree that disregarding that risk constituted a gross deviation" from reasonable conduct. Ross acted before the water even began to flow to keep fines out of the South Umpqua, by placing dirt from the B line cut where it ***would not*** likely flow into the South Umpqua. The flow of water from the hillside was not expected, but, rather, was the result of rain events that also caused a 100-year flood and attendant environmental concerns at the Shady Project. Thus, placing the dirt where it was placed did not constitute a gross deviation from reasonable conduct. Ross justifiably dealt with life-threatening circumstances before it took action to protect the environment.

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STEWART SOKOL & GRAY LLC
ATTORNEYS AT LAW
2300 SW FIRST AVENUE, SUITE 200
PORTLAND, OREGON 97201-5047
(503) 221-0699
FAX (503) 223-5706

Accordingly, there is no basis for a multiplier of 6 in DEQ's penalty calculation. Ross is entitled and specifically requests a finding that it was not reckless, but, at most, was negligent.

3. The Proper Penalty Calculation

Assuming any penalty is proper, which none is, calculation of a proper penalty requires proper use of the penalty formula. Based on the foregoing, the proper penalty calculation, if any penalty is appropriate (which it is not), is as follows:

BP + [(.1 x BP) x (P+H+O+M+C)] + EB

The BP, i.e., "base penalty," properly is $625 as established above, not the $4,000 found by the Order. The proper multiplier for M, i.e., "mental state," is 0, not 6 as found in the Order. Ross Bros. does not dispute the "-1" multiplier employed by DEQ and the Order, and does not dispute the EB, i.e., "economic benefit," calculation of $315. Accordingly, the proper penalty, if any, is:

$625 + [$62.5 x -1] = $562.50 per violation established (if any), plus a one-time economic benefit of $315, for a penalty of $877.50.

CONCLUSION

For the foregoing reasons, either (1) no penalty should be assessed, the Order should be rejected, and DEQ's allegations dismissed, with prejudice, or (2) if any penalty is assessed, which it should not be, the penalty should be $877.50.

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STEWART SOKOL & GRAY LLC
ATTORNEYS AT LAW
2300 SW FIRST AVENUE, SUITE 200
PORTLAND, OREGON 97201-5047
(503) 221-0699
FAX (503) 223-5706

Respectfully submitted this 3rd day of February, 2009.

STEWART SOKOL & GRAY LLC

By: _____

Robert B. Coleman, OSB # 001554
Aaron M. Hessel, OSB #074113
Of Attorneys for Ross Bros. Construction, Inc.

STEWART SOKOL & GRAY LLC
ATTORNEYS AT LAW
2300 SW FIRST AVENUE, SUITE 200
PORTLAND, OREGON 97201-5047
(503) 221-0699
FAX (503) 223-5706

CERTIFICATE OF SERVICE

I hereby certify that I served the foregoing **ROSS BROTHERS CONSTRUCTION, INC.'S EXCEPTIONS AND BRIEF** on:

Courtney Brown
Department of Environmental Quality
811 SW 6th Avenue
Portland, OR 97204

by the following indicated method or methods:

____ by **mailing** a full, true and correct copy thereof in a sealed, first-class postage-paid envelope, and addressed to the attorney as shown above, the last-known office address of the attorney, and deposited with the United States Postal Service at Portland, Oregon on the date set forth below.

__✓__ by causing a full, true and correct copy thereof to be **hand-delivered** to the attorney at the attorney's last-known office address listed above on the date set forth below.

____ by sending a full, true and correct copy thereof via **overnight courier** in a sealed, prepaid envelope, addressed to the attorney as shown above, the last-known office address of the attorney, on the date set forth below.

____ by **faxing** a full, true and correct copy thereof to the attorney at the fax number shown above, which is the last-known fax number for the attorney's office, on the date set forth below.

Dated this 3rd day of February, 2009.

Robert B. Coleman, OSB # 001554
Of Attorneys for Ross Brothers Construction, Inc.

STEWART SOKOL & GRAY LLC
ATTORNEYS AT LAW
2300 SW FIRST AVENUE, SUITE 200
PORTLAND, OREGON 97201-5047
(503) 221-0699
FAX (503) 223-5706

STEWART SOKOL & GRAY LLC

ATTORNEYS AT LAW

John Spencer Stewart PC *†◊▫
Jan D. Sokol*†▫
Arnold L. Gray†
Thomas A. Larkin*◊▫
Angela M. Otto*

2300 SW FIRST AVENUE
SUITE 200
PORTLAND, OREGON 97201-5047
(503) 221-0699
FAX (503) 223-5706
www.lawssg.com

Robert B. Coleman*
Lawrence A. Wagner*
Tyler J. Storti▫*
Scott D. Schnuck
Aaron M. Hessel
David A. Gilbert

All Members of Oregon Bar
* Washington Bar
† District of Columbia Bar
◊ Alaska Bar
▫ Idaho Bar

Email: rcoleman@lawssg.com

March 24, 2009

Via Hand-Delivery
Stephanie Clark, Assistant to the Commission
Oregon Environmental Quality Commission
811 SW Sixth Avenue
Portland, OR 97204-1390

Re: Ross Bros./DEQ Appeal; Our File No. 7687.026
In the Matter of Ross Brothers Construction, Inc.
OAH Case No. 700281
DEQ Case No. WQ-SW-WR-06-257

Dear Ms. Clark:

Enclosed please find an original and one copy of Ross Brothers and Company, Inc.'s Reply in Support of Its Exceptions in the above-referenced matter. Please file the original with the Commission, and return the remaining copy (only 1st page provided) conformed as to the date of filing in the self-addressed, stamped envelope enclosed.

Thank you in advance for your assistance.

Very truly yours,

STEWART SOKOL & GRAY LLC

Robert B. Coleman

RBC:de
Enclosure
cc: Courtney Brown (w/enc. via hand-delivery)
John Spencer Stewart (w/o enc.)
Aaron M Hessel (w/o enc.)

7687.026-00233558; 1

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
STATE OF OREGON

IN THE MATTER OF:	**ROSS BROTHERS AND COMPANY, INC.'S REPLY IN SUPPORT OF ITS EXCEPTIONS**
ROSS BROTHERS CONSTRUCTION, INC.,[1] **Respondent**	OAH Case No. 700281 Agency Case No.: WQ/SW-WR-06-257 Commission Case No.

Respondent, Ross Bros. & Company, Inc. ("Ross Bros.") respectfully submits the following Reply Brief in Support of its Exceptions.

I. First Exception

Ross Bros.' First Exception is to the finding(s) and conclusion(s) that Permit Number 1200-CA, the National Pollutant Discharge Elimination System ("NPDES") General Permit (the "Permit") applicable to the Shady Bridge Project does not apply to and/or cover Ross Bros.' activities.

DEQ responds to Ross Bros.' Brief by pointing out that "the cover page [of the Permit] also expressly states that it is a permit only available to public agencies, and that the submittal of an approved application and payment of permit fees to DEQ is a pre-requisite to 1200-CA Coverage." DEQ's Answering Brief at 4:22-24. The fact that

[1]The proper name of respondent is Ross Bros. & Company, Inc., not Ross Bros. Construction, Inc.

STEWART SOKOL & GRAY LLC
ATTORNEYS AT LAW
2300 SW FIRST AVENUE, SUITE 200
PORTLAND, OREGON 97201-5047
(503) 221-0699
FAX (503) 223-5706

only a public agency can obtain a permit demonstrates that Ross Bros. is covered by the Permit.

If only ODOT can apply for and receive a permit, the Permit must cover the activities of the general contractor who performs the work as ODOT's agent. First, only the general contractor (or subcontractors as its agents) performs "Construction activities including clearing, grading, excavation, and stockpiling activities under the authority or jurisdiction of" ODOT. Exhibit D18 at 1. These construction activities expressly and unambiguously are the "SOURCES [of pollution] COVERED BY THIS PERMIT." Second, if Permit covers only the applicant, ODOT's prime contractor violates OAR 340-045-0015 on every project. Third, ODOT's own documents demonstrate that it believes that its prime contractor is covered by the Permit. See Exhibit R3 (Biological Assessment at 7.2.1). Fourth, if a permit that only ODOT may apply for does not cover the entities that actually perform the construction, from the general contractor down, then those entities would violate OAR 340-045-0015 by performing contractually required work. In sum, if the Permit covers only the activities of ODOT as the applicant agency, the Permit issued by DEQ for the Shady Bridge Projects, and others issued to ODOT for similar projects, cover no activities at all: ODOT does not self-perform the activities for which permits are obtained.

Next, DEQ asserts is that since Ross Bros. allegedly did not perform every condition set forth in the Permit, the Permit does not cover Ross Bros. DEQ's Answering Brief at 5:1-6:16. Again, DEQ's point acknowledges that the Permit covers Ross Bros. Is it DEQ's position that a general contractor cannot be cited for failing to perform the conditions of a permit? Such a position is flatly contradicted by statute:

STEWART SOKOL & GRAY LLC
ATTORNEYS AT LAW
2300 SW FIRST AVENUE, SUITE 200
PORTLAND, OREGON 97201-5047
(503) 221-0699
FAX (503) 223-5706

ORS 468B.025(2) provides that "[n]o person shall violate the conditions of any waste discharge permit issued under ORS 468B.050." Since a general contractor can be cited for violating the conditions of a permit, the permit applies to and covers the general contractor's activities.

The Permit applies to and covers Ross Bros.' activities. The Commission must accept Ross Bros.' First Exception.

II. Second Exception

Ross Bros.' Second Exception is that DEQ failed to prove a ten percent increase in natural stream turbitities by ***measurement*** of the discharge observed. DEQ does not argue with the Order's conclusion that "DEQ offered too little evidence to establish that the flow of turbid water into the South Umpqua River which resulted caused 'more than a ten percent cumulative increase in natural stream turbidities' on any of the dates in issue." Order at 5. Instead, DEQ states that "[b]ecause ODOT's 1200-CA Permit does not apply to Ross Bros., the Permit's allowance of 'no more than a 10 percent cumulative increase in natural stream turbidities' does not extend to Ross Bros." DEQ's Answering Brief at 6:19-21.

The corollary of this argument is that if the Permit ***does*** apply to Ross Bros., DEQ bears the burden of proving ***measurement*** of a 10 percent cumulative increase for Ross Bros. to be penalized. The Permit ***does*** apply to Ross Bros., for all the reasons discussed above, including the fact that only ODOT may apply for a permit. DEQ therefore failed to prove, by a preponderance of the evidence, any violation of the Permit. Accordingly, the Commission must overrule the Order's findings and conclusions, and accept Ross Bros.' Second Exception.

STEWART SOKOL & GRAY LLC
ATTORNEYS AT LAW
2300 SW FIRST AVENUE, SUITE 200
PORTLAND, OREGON 97201-5047
(503) 221-0699
FAX (503) 223-5706

III. Third Exception

Ross Bros.'s Third Exception is to the finding and conclusion that Ross Bros. violated ORS 468B.025(1)(a), and the assessment of any penalty based on that finding. See Order at 3. Simply, ORS 468B.025(2), which provides that "[n]o person shall violate the conditions of any waste discharge permit issued under ORS 468B.050" applies to this matter, not ORS 468B.025(1)(a). See Jordan v. SAIF Corp., 343 Or. 208 (2007) ("When general and particular provisions of a statue are inconsistent, the particular provision controls."). And, DEQ failed to allege a violation of the Permit.

Again, DEQ's only response is that because the Permit does not apply to Ross Bros., DEQ need not plead and prove a violation of the Permit. The corollary of this argument is that if the Permit does apply to Ross Bros., DEQ must plead and prove a violation of the Permit. The Permit ***does*** apply to Ross Bros., for all the reasons discussed above. DEQ failed to allege a violation of the Permit. Accordingly, the Commission must accept Ross Bros.' Third Exception.

IV. Fourth Exception

Ross Bros.' Fourth Exception is to the finding and conclusion that "A penalty of $24,315 is appropriate pursuant to OAR 340-012-0055(1)(a) and OAR 340-012-0045." Without abandoning any of the arguments in Ross Bros.' Brief, Ross Bros. will respond to one assertion made in DEQ's Answering Brief.

Specifically, DEQ asserts that the $2,500 Penalty Matrix does not apply because old OAR 340-012-0140(4)(a)(E)(ii) refers to a NPDES Stormwater Discharge 1200-C General Permit, not a 1200-C***A*** General Permit. It is not clear what the significance of the "A" is in the Permit. However, DEQ's Penalty Matrix rules refer repeatedly to

STEWART SOKOL & GRAY LLC
ATTORNEYS AT LAW
2300 SW FIRST AVENUE, SUITE 200
PORTLAND, OREGON 97201-5047
(503) 221-0699
FAX (503) 223-5706

various sorts of NPDES permits, including NPDES 1200-C permits. See, e.g., OAR 340-012-140(2)(a)(D), (E)(ii), (E)(iii), (3)(E)(i), and (3)(E)(iii). The Penalty Matrix rules nowhere refer to a NPDES 1200-C***A*** permit. Is it DEQ's position that no Penalty Matrix rule applies to this matter because the Permit is a 1200-C***A*** permit? This simple fact is that this was a construction project, and the $2500 Penalty Matrix applies under OAR 340-012-140(4)(a)(E)(ii) when "[a] person . . . has . . . a NPDES Stormwater Discharge 1200-C General Permit for a construction site that is more than one, but less than five acres." See page 48 of DEQ's "old rules." That is the kind of permit Ross Bros., as ODOT's prime contractor, had for the heavy highway construction project out of which this matter arises.

Since the $2,500 matrix applies to this permit-based heavy highway construction related matter, and as DEQ alleges that the violation is "Moderate," even if the violation is a Class I violation (which it is not), the proper base penalty is $1250. Thus, even assuming that Ross Bros. was reckless, which it was not, if any penalty is appropriate, which it is not, the proper calculation of a penalty in this matter would be: $1250 + [$125 x 5] = $1875 per violation established (if any), plus a one-time economic benefit of $315.

CONCLUSION

For the foregoing reasons, either (1) no penalty should be assessed, the Order should be rejected, and DEQ's allegations dismissed, with prejudice, or (2) if any penalty is assessed, which it should not be, the penalty should be – at most – $1875 per violation established (if any) plus a one-time economic benefit of $315.

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STEWART SOKOL & GRAY LLC
ATTORNEYS AT LAW
2300 SW FIRST AVENUE, SUITE 200
PORTLAND, OREGON 97201-5047
(503) 221-0699
FAX (503) 223-5706

Respectfully submitted this 24th day of March, 2009.

STEWART SOKOL & GRAY LLC

By: _____

Robert B. Coleman, OSB # 001554
Aaron M. Hessel, OSB #074113
Of Attorneys for Ross Bros. & Company, Inc.

STEWART SOKOL & GRAY LLC
ATTORNEYS AT LAW
2300 SW FIRST AVENUE, SUITE 200
PORTLAND, OREGON 97201-5047
(503) 221-0699
FAX (503) 223-5706

CERTIFICATE OF SERVICE

I hereby certify that I served the foregoing **ROSS BROTHERS CONSTRUCTION, INC.'S EXCEPTIONS AND BRIEF** on:

Courtney Brown
Department of Environmental Quality
811 SW 6th Avenue
Portland, OR 97204

by the following indicated method or methods:

____ by **mailing** a full, true and correct copy thereof in a sealed, first-class postage-paid envelope, and addressed to the attorney as shown above, the last-known office address of the attorney, and deposited with the United States Postal Service at Portland, Oregon on the date set forth below.

__✓__ by causing a full, true and correct copy thereof to be **hand-delivered** to the attorney at the attorney's last-known office address listed above on the date set forth below.

____ by sending a full, true and correct copy thereof via **overnight courier** in a sealed, prepaid envelope, addressed to the attorney as shown above, the last-known office address of the attorney, on the date set forth below.

____ by **faxing** a full, true and correct copy thereof to the attorney at the fax number shown above, which is the last-known fax number for the attorney's office, on the date set forth below.

Dated this 24th day of March, 2009.

Robert B. Coleman, OSB # 001554
Of Attorneys for Ross Brothers Construction, Inc.

STEWART SOKOL & GRAY LLC
ATTORNEYS AT LAW
2300 SW FIRST AVENUE, SUITE 200
PORTLAND, OREGON 97201-5047
(503) 221-0699
FAX (503) 223-5706

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION

OF THE STATE OF OREGON

IN THE MATTER OF: ROSS BROS. CONSTRUCTION, INC., an Oregon corporation, Respondent.	)	DEPARTMENT'S ANSWERING BRIEF No. WQ/SW-WR-06-257 DOUGLAS COUNTY

I. INTRODUCTION

On November 30, 2007, the Department of Environmental Quality (DEQ) issued a revised Notice of Violation, Department Order and Assessment of Civil Penalty (Notice) to Respondent, Ross Bros. Construction, Inc., assessing a $24,315 civil penalty for causing pollution to waters of the state[1], the South Umpqua River, on February 15, 2006, February 16, 2006, February 21, 2006, and March 10, 2006, from the Shady Bridge project site.

Respondent requested a hearing on the matter, which was held before Administrative Law Judge (ALJ) Terrence Murphey on June 13, 2008. At the hearing, DEQ Natural Resource Specialist (NRS) Paul Kennedy testified that he observed muddy water and sediment running off the portion of the Shady Bridge site known as the "B" line and into a catch basin that discharges to the South Umpqua River on the four days alleged in DEQ's Notice. He testified that he visually estimated the turbidity in the plume was at least 10%, or 10 nephelometric units (NTUs), above background and that it extended approximately 25 feet into the river and approximately 75 feet downstream. As depicted in Kennedy's inspection photos, admitted into the record at hearing, Ross Bros. did not install any erosion and sediment controls along the entire path of the discharge until shortly before March 10, 2006, when it placed several hay bales along the side of the road that were completely ineffective erosion and sediment controls.

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[1] The Department alleged that Respondent violated ORS 468B.025(1)(a) which states that: "Except as provided in ORS 468B.050 or 468B.053, no person shall: (a) Cause pollution of any waters of the state …." "'Pollution' or 'water pollution' means such alteration of the physical, chemical or biological properties of any waters of the state including change in … turbidity …. which will or tends to, either by itself or in connection with any other substance, create a public nuisance or render such waters harmful, detrimental or injurious to … legitimate beneficial uses or to …wildlife, fish or other aquatic life or the habitat thereof." ORS 468B.005(5).

DEQ presented evidence that the South Umpqua River is habitat for Oregon Coast Coho (a "threatened" species under the Endangered Species Act), spring and fall Chinook salmon, winter steelhead, cutthroat trout and other aquatic species. The South Umpqua accounts for more than 50% of the Umpqua River Basin's fall Chinook salmon population. Tr. 225:3-7 (Testimony of A. Martin). There is a large, half-mile long fall Chinook spawning gravel bar less than a half-mile downstream from the Shady Bridge project. Tr. 226:13-227 (Testimony of A. Martin).

At the hearing Art Martin, an Oregon Department of Fish and Wildlife specialist, testified that during February and March (when the illegal discharges occurred), spring Chinook salmon fry and smolts are typically migrating downstream through the Shady Bridge site and may use this area for feeding and refuge. Tr. 226:25-229:9. In February, fall Chinook salmon eggs are present in redds (salmon egg nests) at the gravel bar one half-mile downstream of the Shady Bridge site. Tr. 227:10. Mr. Martin testified that turbidity at the levels observed by Mr. Kennedy can have adverse impacts on the "energetics" of migrating salmon – which may be forced to work harder to find food and be less vigorous and fit for the remainder of their migration. Tr. 231:1-232:12. Mr. Martin also testified that redds are particularly sensitive to even small amounts of turbidity – especially if those impacts are cumulative or occur on several occasions over time. Tr. 233:3-234:11.

DEQ NRS Thomas Rosetta testified that turbidity may also be harmful to other designated beneficial uses of the South Umpqua, such as public and private domestic water supply, industrial water supply, irrigation, livestock watering, wildlife and hunting, fishing, recreation, and hydroelectric power. Tr. 109:16-110:11.

Ross Bros. presented no testimony or evidence disputing any of the above facts.

ALJ Murphey's Corrected Proposed and Final Order ("Proposed Order"), issued November 3, 2008, ruled in favor of the Department on all counts, finding that Respondent caused pollution to

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the South Umpqua River on all days alleged in the Department's Notice [2] and that the civil penalty assessed in DEQ's Notice was appropriate.

Ross Bros. has appealed the Proposed Order to the Environmental Quality Commission (EQC). In response, DEQ submits this Answering Brief to the EQC for its consideration.

II. ADMINISTRATIVE LAW JUDGE'S FINDINGS OF FACT AND CONCLUSIONS OF LAW

As stated in the Proposed Order, "[t]he facts of this case are largely undisputed." Prop. Order, p. 3. DEQ proved its prima facie pollution case against Ross Bros.

At the hearing Ross Bros. raised two arguments in rebuttal – both of which were flatly rejected by ALJ Murphey. First, it claimed that the National Pollutant Discharge Elimination System 1200-CA General Permit (the "1200-CA Permit") issued to the Oregon Department of Transportation (ODOT) for the Shady Bridge project also extended coverage to it, as ODOT's contractor on the Shady Bridge project, and excused any pollution Ross Bros. caused to the South Umpqua. Relying on a provision in the 1200-CA Permit which states: "No more than a ten percent 10% cumulative increase in natural stream turbidities shall be allowed, as measured relative to a control point immediately upstream of the turbidity causing activity," Ross Bros.' second claim at hearing was that the Department was required to take a turbidity measurement in order to prove turbidity exceeded that threshold, and that its failure to do so is fatal to DEQ's causing pollution claims.

The Proposed Order rules against Ross Bros. on both issues. "To avail itself of the language in the Permit concerning an increase of 10% or less in turbidity, Respondent needed to establish that its activities were covered by the Permit and that its activities were not in violation of the terms of

[2] ALJ Murphey's Corrected Proposed and Final Order states that the first issue presented was whether the Respondent caused pollution to waters of the state on "February 15, 2006, *February 21, 2006*, February 21, 2006, March 10, 2006." ALJ Murphey's Findings of Fact discuss turbid water discharges observed on February 15, 16, 21, and March 10, 2006. ALJ Murphey's Conclusions of Law state, however, that Respondent caused pollution to waters of the state on February 15, 2006, *February 21, 2006*, February 21, 2006, and March 10, 2006. Because ALJ's Murphey's opinion affirms DEQ's case on all counts and upholds DEQ's penalty in its entirety, DEQ believes that listing February 21, 2006 twice was an error. It should have been "February 16, 2006" as that is the date alleged in DEQ's Notice and comports with the ALJ's finding that turbid water was observed discharging on that day.

the Permit. Respondent cannot establish either of these things." Prop. Order, p.6.

Additionally, the Proposed Order found that the observations and testimony of DEQ NRS Paul Kennedy who observed the turbid, muddy water discharge from the project site were sufficient to establish that turbid water was moving from the Shady Bridge Project into the South Umpqua River on all four days – and no more exact measurement was required. Prop. Order, p. 4. Ross Bros. offered no evidence or testimony regarding the amount or turbidity of the runoff and, in fact, admitted that no one from Ross Bros. ever bothered to inspect, measure, or even look at the offending discharge. The Proposed Order correctly found that the Department's uncontroverted testimony and evidence were sufficient to establish that Ross Bros. caused pollution to the South Umpqua on all four days alleged. Prop. Order, p. 4.

III. ARGUMENT

On appeal, Respondent re-asserts the two arguments discussed above and raises additional exceptions to the Proposed Order.

1. Respondent's First Exception: Ross Bros. was "covered" by ODOT's 1200-CA Permit

Ross Bros. re-asserts the same argument rejected by ALJ Murphey in his Proposed Order--that as ODOT's contractor on the Shady Bridge project, the 1200-CA General Permit issued to ODOT extends to its activities, including those that resulted in pollution to the South Umpqua River. In support of its claim, Ross Bros. focuses narrowly on language from the cover page of the 1200-CA Permit that says "sources covered by this permit" include "construction activities ... under the authority or jurisdiction of a public agency." Respondent ignores the rest of the language on that cover page describing other prerequisites to 1200-CA permit coverage. For instance, the cover page also expressly states that it is a permit only available to public agencies, and that the submittal of an approved application and payment of permit fees to DEQ is a pre-requisite to 1200-CA coverage. Ex. D18 at p. 1. Ross Bros. is not a public agency and submitted no fees or application for coverage under the 1200-CA Permit for the Shady Bridge project; if it had, DEQ would not have been able to issue it coverage under this Permit.

Moreover, the same cover page states that the 1200-CA Permit authorizes permittees to discharge stormwater to public waters but only when done so "in conformance with all the requirements, limitations, and conditions set forth" in the Permit. Ex. D18 at p.1. Even if ODOT's 1200-CA permit coverage could have extended to Ross Bros., the discharges that are the subject of DEQ's Notice would not have been permitted, lawful discharges because Ross Bros did not act "in conformance with all the requirements, limitations, and conditions set forth" in the Permit. Ex. D18, p.1. Indeed, DEQ issued a Notice of Violation and Civil Penalty Assessment to ODOT for violating conditions of the 1200-CA that resulted in the discharges to the South Umpqua River that are issue in this appeal.

At the hearing DEQ presented exhaustive testimony from ODOT and David Evans and Associates (DEA) (ODOT's on-site agent at the Shady Bridge project) regarding the myriad of erosion and sediment control problems on the B line section of the Shady Bridge project leading up to the violations. Herb Shaw, a senior construction manager with DEA, testified that they first became aware of erosion and sediment problems on this section of the project on February 9, 2006. Tr. 167:16-168:4. Shaw testified that from the beginning, Ross Bros "did not have check dams or any way of controlling the runoff that was coming out of their work area, coming down ... the B line." Tr. 170:10-13.

ODOT's project manager, Chris Hunter, testified that in February 2006, Ross Bros. did not implement the Erosion and Sediment Control Plan (ESCP) developed for the Shady Bridge project and that there were no erosion and sediment controls in place along the B line. Tr. 124:4-10. Hunter testified that Ross Bros. was operating in violation of its contract with ODOT that required Ross Bros to implement the ESCP, as well as numerous other contract specifications regarding maintenance, repair and replacement of ineffective erosion and sediment controls, as well as monitoring erosion at the site and containing sediment-laden runoff. Tr. 134:15-25; Tr. 135:20-25, Tr.136:4-10, Tr. 136:16-18, Tr. 186:14-19.

Implementing the ESCP is a condition of the 1200-CA Permit. Specifically, Schedule A, condition 1 of the Permit requires that the ESCP be implemented to prevent the discharge of

significant amounts of sediment to surface waters. Ex D18, p.2. Schedule A, condition 1(c) states that "turbid flows of water that are not filtered or settled to remove turbidity prior to leaving the construction site" are "conditions [that] describe significant amounts of sediment and shall be prevented from occurring." *Id.* Schedule B of the 1200-CA Permit requires inspections and monitoring of the site by a designated person, with written records kept of all visual inspections that include observations of the "quality of the discharge" for any turbidity, color, sheen, or floating materials." Ex. D18, p.7,8.

Todd Ross, Ross Bros. Superintendent, was the designated Erosion and Sediment Control manager at the site yet he testified that he did not conduct any such inspections (Tr. 272:14-18), that he never saw the discharge from the site and that no one maintained any written records of visual inspections. Tr. 274:20-23.

Ross Bros. was operating so far outside the bounds of the 1200-CA Permit that it is hard to understand their argument that they deserve its protection. ALJ Murphey wrote: "Respondent cannot have it both ways. It asserts the protection of the Permit, which provided an absolute bar on discharges into the river absent compliance with an elaborate, multi-page list of precautions and inspections, all of which Respondent ignored." Prop. Order, p. 9.

2. Respondent's second exception: DEQ was required to prove by measurement a ten percent increase in turbidity.

Because ODOT's 1200-CA Permit does not apply to Ross Bros., the Permit's allowance of "no more than a ten percent cumulative increase in natural stream turbidities" does not extend to Ross Bros. DEQ did not have to prove by measuring device, or otherwise, that the turbid discharge exceeded any minimum threshold in that Permit.[3] As recognized by ALJ Murphey in his Proposed Order: "The absence of measurements beyond those taken cannot prevent a finding that turbid water flowed from the Shady Bridge Project into the South Umpqua River on all four of the dates in issue

[3] Nonetheless, at hearing DEQ offered expert testimony that any visual indication of turbidity is widely recognized as being approximately 10 NTUs or 10% above background. Tr. 50:12-21; 51:8-21 (Testimony of P. Kennedy). "[A]ny visible turbidity essentially is greater than a ten percent increase of ambient" Tr. 237:10-12 (Testimony of A. Martin). "When you can see and visually the turbidity, you're probably at ten percent or higher." Tr. 150:15-16 (Testimony of C. Hunter).

as a result of Respondent's activities." Prop. Order, p. 5.

To sustain the burden of proof for a causing pollution violation, all DEQ had to prove was that Ross Bros. caused a discharge that met the definition of "pollution" in ORS 468B.005(5)[4] – in other words, that the discharge occurred, it was turbid, and it tended to render the waters of the state harmful to aquatic life or beneficial uses of the South Umpqua River. A "causing pollution" violation requires no measurement of any kind. *See* ORS 468B.025(1)(a). Ross Bros. offered no argument, evidence or testimony that DEQ did not prove it caused pollution on February 15, 16, 21, 2006, and March 10, 2006.

3. Respondent's Third Exception: DEQ cannot allege a violation of ORS 468B.025 when there's a Permit.

Ross Bros. argues that ORS 468B.025(1)(a) "is not applicable when a permit applies and covers the activities of the person alleged to have engaged in a violation" and that because the 1200-CA allows some discharges DEQ is limited to alleging only a violation of the Permit.

ORS 468B.025(1)(a) states that "[e]xcept as provided in ORS 468B.050 … no person shall: (a) cause pollution of any waters of the state." The exception provided in ORS 468B.050 states that "*without holding a permit* from [DEQ] … a person may not discharge any wastes into waters of the state." (Emphasis added). As demonstrated above, Ross Bros. held no permit from DEQ for the Shady Bridge project and DEQ was under no requirement to prove or provide any notice of a violation of the 1200-CA permit that ODOT held for this project.[5]

4. Respondent's Fourth Exception: The civil penalty was miscalculated.

Respondent argues that even if DEQ proved Respondent violated ORS 468B.025(1)(a), the civil penalty assessment should be much lower based on adjustments to the classification, matrix and mental state DEQ assigned to the violation.

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[4] "'Pollution' or 'water pollution' means such alteration of the physical, chemical or biological properties of any waters of the state including change in … turbidity … which will or tends to, either by itself or in connection with any other substance, create a public nuisance or render such waters harmful, detrimental or injurious to …legitimate beneficial uses or to …wildlife, fish or other aquatic life or the habitat thereof." ORS 468B.005(5).

[5] As stated earlier, DEQ did issue a Notice against ODOT for violating conditions of the 1200-CA that arose from the same discharges that are the subject of the DEQ's causing pollution action against Ross Bros.

All DEQ civil penalties are calculated using the "civil penalty determination procedure" prescribed by OAR 340-012-0045.[6] That rule lays out a formula, and describes how DEQ will apply its rules to the factors in that formula.

a) Classification

Ross Bros. first claims that its violations should not be found to be a Class I "causing pollution" violations, as alleged in the Department's Notice under OAR 340-012-0055(1)(a) but should be Class II violations under OAR 340-012-0055(2)(c) for "placing wastes such that the wastes are likely to enter public waters by any means." As recognized in the Proposed Order, the problem with Respondent's argument is that "it ignores the undisputed fact that the material *actually entered* the South Umpqua River, thus causing 'pollution' and making the violations Class I violations." Prop. Order, p.7 (emphasis added). The lesser "placing wastes" classification is only applicable in situations where there was no actual discharge but merely a risk of discharge. As proved at hearing, Ross Bros.' actions resulted in a continuous, unmitigated *discharge* of pollution to the South Umpqua River. They are Class I violations under OAR 340-012-0055(1)(a).

b) Matrix

Relying on its above argument that the violations were Class II "placing wastes" violations, Ross Bros. argues for an adjustment to the "base penalty" using a penalty matrix that applies only when Respondents have "applied for coverage under an NPDES stormwater discharge 1200-C General Permit." *See* OAR 340-012-140(4)(a)(E)(ii). Not only has Ross Bros. failed to prove that it applied for *any* stormwater permit for the Shady Bridge project, this matrix is only available to those that have applied for coverage under the 1200-*C* permit, a permit that is wholly separate and unrelated to the 1200-CA Permit and not at issue in this case.

The matrix applicable to this case is the $8,000 penalty matrix that applies to "[a]ny violation of 468B.025(1)(a) … by a person *without* a National Pollutant Discharge Elimination

[6] The formula for determining the amount of penalty of each violation is: BP + [(0.1 x BP) x (P + H + O + M + C)] +EB where "BP" is the "base penalty," a function of the classification of the violation and the assessed magnitude, "P" stands for any "prior significant actions" committed by the violation, "H" is the violator's history of correcting prior significant actions, "O" stands for whether the violations were repeated or ongoing, "M" stands for the mental state of the violator, and "C" is the violator's effort to correct the violation.

System (NPDES) permit." OAR 340-012-0140(2)(D) (emphasis added). "The $8,000 penalty matrix applies to these violations, since Respondent did not have an NPDES permit." Prop. Order, p. 7.

c) Mental state

DEQ alleged in the civil penalty calculation exhibit attached to our Notice that Ross Bros. acted "recklessly" because "turbid water was easily observed discharging from the site" and that "[b]y failing to install adequate erosion and sediment controls, and failing to maintain erosion and sediment controls in place, Respondent consciously disregarded a substantial and unjustifiable risk that it would cause pollution to the waters of the state." Such a "conscious disregard" for the substantial and unjustifiable risk that pollution could result from the circumstances at the site, was "reckless" under that definition in DEQ's enforcement rules.[7]

On appeal, Ross Bros. offers two claims to support its argument that it was not reckless, and at most was only negligent. It argues that just before the discharges there was a 100-year flood in southern Oregon. However, at the hearing, Todd Ross testified that there was a "high water event" on December 29, 2005 (a month and a half before the discharges were observed) (Tr. 248:16), and he also testified that he believed the source of the water at the site was a spring – and not the result of a flood. Tr. 246:1-17; Tr. 276:21-23. In addition, Paul Kennedy's testimony and photographs taken on the first day of the observed discharge show that the weather on February 15, 2006 was sky-blue, clear, and not raining. Tr. 39:20-40:3. Moreover, Mr. Hunter of ODOT testified that the conditions at the sited presented no extraordinary challenges, that the situation at the site "wasn't anything abnormal to deal with through the normal practices … for erosion and sediment control." Tr. 126:12-16. The Proposed Order found that "the '100-year flood' argument is unsupported by weather or other records showing that the rainfall …was so extraordinary that the entry of the material into the South Umpqua River could be considered unanticipated." Prop. Order, p. 8, 9.

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[7] "'Reckless' or 'recklessly' means the respondent consciously disregarded a substantial and unjustifiable risk that the result would occur or that the circumstance existed. The risk must be of such a nature and degree that disregarding the risk constituted a gross deviation from the standard of care a reasonable person would observe in that situation." OAR 340-012-0026(17).

Ross Bros. also claims it was not reckless because it was responding to an automobile accident and that it began to take corrective measures "very shortly" after DEQ staff made it aware of the discharge. That it took action "very shortly after Mr. Kennedy brought the discharges to Ross Bros.' attention" is simply false and unsupported by the testimony and evidence presented at hearing.

Todd Ross testified that there was an accident on February 17th (Tr.261:5) – over one week after the erosion and sediment problems were first observed at the site by ODOT's agent, DEA manager, Herb Shaw on February 9th. As the Proposed Order found, "Respondent offered no proof that any automobile accident left Respondent, a corporation with multiple employees at the site, unable to act to correct the violations DEQ pointed out, or that any correction 'shortly' thereafter was prompt, more than minimally adequate, or monitored at intervals to assure that there would be no more pollution of the South Umpqua River." Prop. Order, p. 9.

There were, in fact, *no* controls whatsoever at the site on February 15, 16, and 21, 2006. Tr. 38:8-19; Tr.55:24-56:3; Tr.74:8-15 (Testimony of P. Kennedy). Todd Ross himself admitted that they didn't place any erosion and sediment controls at the site until February 27, 2006 when he placed some sediment fencing - well after the discharges were first observed by DEQ on February 15th, and well after the traffic accident occurred on February 17th. Tr. 290:5-20 (Testimony of T. Ross). By March 10, 2006, Ross Bros had also installed some hay bales at the site, although they were in disrepair, malfunctioning and ineffective. Tr. 65:1-22 (Testimony of P. Kennedy).

By failing to install adequate erosion and sediment controls until after March 10, 2006, Respondent acted recklessly – with a conscious disregard of the risk that it would cause pollution to the South Umpqua.

IV. COMMISSION ACTION REQUESTED

The Department requests that the Commission deny Ross Bros.' petition and issue a Final Order upholding the ALJ's Proposed Order.

March 5, 2009
Date

Courtney Brown, Environmental Law Specialist

CERTIFICATE OF SERVICE

I hereby certify that I served the Department's Answering brief on the ___the day of March, 2009 by PERSONAL SERVICE upon

The Oregon Environmental Quality Commission
c/o Stephanie Clark, Assistant to the Commission
811 S.W. Sixth Avenue
Portland, OR 97204

and by USPS upon

Robert Coleman
Stewart, Sokol & Gray LLC
2300 SW First Avenue, Suite 200
Portland, OR 97201-5047

by mailing a true copy of the above by placing it in a sealed envelope, with postage prepaid at the U.S. Post Office in Portland, Oregon, on March , 2009.

SETTLEMENT AGREEMENT AND RELEASE OF CLAIMS

This SETTLEMENT AGREEMENT AND RELEASE OF CLAIMS ("Agreement") is entered by Northwest Environmental Defense Center, Mark Riskedahl, and Columbia Riverkeeper, and the Oregon Department of Environmental Quality ("DEQ"), the Oregon Environmental Quality Commission ("EQC") and Dick Pedersen, jointly referred to as the "Parties."

RECITALS

A. On August 10, 2006, the Environmental Quality Commission adopted new 1200-COLS and 1200-Z general permits. The 1200-COLS general permit became effective on September 1, 2006, and it expires on August 31, 2011. The 1200-Z general permit became effective on July 1, 2007, and it expires on June 30, 2012. Both permits are issued by the Department of Environmental Quality under the Section 402 of the federal Clean Water Act and they authorize registrants to discharge industrial stormwater to surface waters of the State of Oregon and waters of the United States.

B. On March 26, 2007, Northwest Environmental Defense Center, Columbia Riverkeeper, and Mark Riskedahl filed an amended Petition for Review in Multnomah County Circuit Court (Case No. 0703-03342) directly challenging the registration of three facilities under the 1200-COLS permit and indirectly challenging the validity of the permit itself.

C. On January 17, 2008, Northwest Environmental Defense Center, Columbia Riverkeeper, and Mark Riskedahl filed an amended Petition for Review in Multnomah County Circuit Court (Case No. 0801-00974) directly challenging the registration of three facilities under the 1200-Z permit and indirectly challenging the validity of the permit itself.

D. On March 10, 2008, the Circuit Court for Multnomah County consolidated the two petitions for review.

E. In September of 2008, the Environmental Protection Agency issued a general permit for industrial stormwater, known as the multi-sector general permit or MSGP. This permit replaced an earlier general permit that was issued in 2000 and expired in 2005. Issuance of the permit was delayed by litigation and extensions of opportunities for public comment.

F. The MSGP is not applicable in Oregon, except on certain tribal lands. The parties to this settlement agree, however, that the EPA MSGP is a desirable platform for one or more general permits that would replace the existing 1200-Z and 1200-COLS permits.

G. The parties wish to resolve this litigation through settlement in order to allow DEQ to reconsider and revise the 1200-Z and 1200-COLS general permits.

AGREEMENT

1. Petitioners agree to dismiss *Northwest Environmental Defense Center, et al. v. Oregon Department of Environmental Quality, et al.*, Multnomah County Circuit Court Case No. 0801-00974 and *Northwest Environmental Defense Center, et al. v. Oregon Department of Environmental Quality, et al.*, Multnomah County Circuit Court Case 0703-03342 without prejudice.

2. Petitioners agree not to challenge the validity of the existing 1200-Z or 1200-COLS permits in future cases that challenge registration under, or administration of, these two permits, so long as DEQ complies with terms of this settlement.

3. DEQ agrees to modify the permit or to adopt a new or renewed permit within 16 months of the finalization of this Agreement. DEQ also commits to convening an Advisory Committee to assist in revising the 1200-Z and 1200-COLS permits. DEQ will provide Petitioners with status reports every other month, detailing the progress of DEQ and the Advisory Committee.

4. DEQ will issue the permits based on the EPA 2008 MSGP revised for Oregon and with the following differences:

a. DEQ will not include EPA-specific requirements that are not applicable to states under 40 CFR 123.25 or other laws.

b. DEQ will retain current public notice and comment provisions that go beyond MSGP requirements.

c. DEQ will continue to review and approve stormwater pollution control plans (SWPCPs) as a condition of registration.

d. DEQ will conduct a study on the validity of anti-degradation findings and adjust the permit terms accordingly.

e. DEQ will re-evaluate the consequences of not meeting benchmarks established in the permit to determine if they are most appropriate.

5. DEQ will agree to promptly reopen the new MSGP-based permit if the United States Court of Appeals invalidates the MSGP or any significant portion of the permit, unless DEQ's permit already addresses the deficiency in a way that is consistent with the court's decision.

6. The revised permits will be based on the following Principles governing the adoption of storm water permits based on EPA's 2008 Multi-Sector General Permit (MSGP):

a. Under the Clean Water Act (CWA) and applicable regulations implementing the CWA, a permit must include water quality based effluent limits more stringent than the applicable technology based limits when such additional limits are necessary to achieve water quality standards adopted under CWA Section 303. These limitations must control all pollutants or pollutant parameters that may be discharged at a level that will cause or will have the reasonable potential to cause or contribute to an excursion above water quality standards. For stormwater discharges, EPA's regulations generally allow narrative limits or controls rather than numeric effluent limits.

b. To comply with the requirement described above, the MSGP includes, among other things, a narrative water quality based effluent limit that requires a registrant to control its discharges as necessary to comply with applicable Water Quality Standards. DEQ will propose permit language that makes it a permit violation to fail to comply with this provision of the permit.

c. The MSGP includes specific provisions for stormwater discharges into a water segment that does not meet applicable water quality standards or is not expected to meet those standards even after the application of the effluent limits required by sections 301(b)(1)(A) and 301(b)(1)(B) of CWA, and for which an EPA-issued or approved TMDL exists. These requirements are set out in Section 2.2.2.1 of the permit and explained at page 58 of the fact sheet. DEQ will propose permit language that is fully consistent with these provisions. In addition, DEQ will propose additional language that clarifies how these permit provisions will be implemented when there is a TMDL for a relevant pollutant parameter and the TMDL does not include a specific waste load allocation for stormwater discharges or indicate that such discharges are not a significant source and need no limit.

d. Notwithstanding provisions in the MSGP, DEQ will propose a permit that requires DEQ approval prior to allowing a registrant to discontinue monitoring an outfall or discharge point based on a determination by the registrant that the discharge from the outfall or discharge point is substantially similar to the discharge of another outfall or discharge point that is being monitored. However, DEQ may delegate this approval function to a city or county that is DEQ's agent for purposes of permit administration. This determination also may be incorporated into the approval of the stormwater pollution control plan (SWPCP) or an amendment to the plan, but it must be based on evidence maintained in the permit file.

e. Notwithstanding the absence of specific provisions in the MSGP, DEQ will propose a permit that clearly requires a registrant to keep its SWPCP up-to-date and that makes failure to do so a permit violation. DEQ also will clarify what is required to keep the plan up-to-date.

f. Notwithstanding provisions in the MSGP, DEQ intends to propose a permit that requires a registrant to comply with all mandatory provisions in its SWPCP and that makes failure to do so a permit violation.

7. DEQ will present the following issues to the Advisory Committee that will be convened as part of the 1200-COLS and 1200-Z permit reconsideration process:

a. DEQ will ask its Advisory Committee to consider whether the minimum monitoring provisions in the MSGP should be increased, and specifically whether monitoring for benchmark and impairment pollutants should be required at least once each year unless there is adequate evidence that a facility does not discharge the pollutant. DEQ recognizes that the adequacy of monitoring is an important consideration with respect to evaluating the effectiveness of BMPs and ensuring that registrants control discharges as necessary to meet applicable water quality standards.

b. DEQ will ask its Advisory Committee to consider additional requirements for registrants that repeatedly fail to meet benchmarks. The Committee's consideration will include a discussion of when such failures should lead to additional regulatory action and what the action might be. These additional requirements could include consideration of additional monitoring requirements, narrative effluent limits, or loss of coverage under the permit. DEQ recognizes that heightened scrutiny of registrants that routinely fail to meet benchmarks may be necessary to protect water quality and ensure that the coverage actually provided by the permit is consistent with the assumptions underlying the permit.

c. DEQ will request that its Advisory Committee consider whether the minimum provisions in the permit for initial characterization of discharges be increased, including consideration of whether all applicants should be required to analyze discharges for any impairment pollutant. DEQ recognizes that this additional information might prove useful for determining whether potential registrants under a new general permit issued pursuant to this agreement are likely to be able to control discharges as necessary to meet applicable water quality standards or should be placed on an individual permit. The information also might be useful to DEQ in future years when DEQ is renewing or reissuing industrial stormwater permits.

8. The parties recognize that circumstances outside the reasonable control of the Parties could delay compliance with the obligations imposed by this Agreement. This includes insufficient funds being appropriated or appropriated funds not being available for expenditure by DEQ. It also includes catastrophic environmental events requiring an immediate or time-consuming response from DEQ. The obligations assumed by DEQ under this agreement are expressly subject to change if alteration in the underlying law would make fulfillment of any Party's obligation unlawful.

9. In the event that DEQ is unable to meet any obligation(s) or deadline(s) set forth in this Agreement because insufficient funds are legally available, DEQ shall so notify Petitioners in writing as expeditiously as practicable after so determining. The notice shall show good cause, by written explanation with supporting documentation,

justifying DEQ's position. If DEQ so notifies Petitioners, the Parties agree to negotiate in good faith regarding any proposed modification to this Agreement. If the Parties are unable to reach an agreement thirty (30) days after DEQ notified Petitioners of insufficient funds, DEQ is excused from complying with its obligations under this Agreement. In such a case, Petitioners may recommence a suit to challenge the validity of the 1200-COLS and 1200-Z permits.

10. In the event that DEQ is unable to meet any obligation(s) or deadline(s) set forth in this Agreement for any reason other than those provided in Paragraph 9, DEQ shall so notify Petitioners in writing as expeditiously as practicable after so determining. The notice shall show good cause, by written explanation with supporting documentation, justifying DEQ's position. If DEQ so notifies Petitioners, the Parties agree to negotiate in good faith regarding any proposed modification to this Agreement. Petitioners agree to wait for at least thirty (30) days after receiving DEQ's notice, before seeking to enforce the terms of this Agreement, pursuant to paragraph 11 of this Agreement, or recommence their challenge to the current 1200-Z or 1200-COLS permits.\.

11. Dispute Resolution. In the event that any of the Parties believe that another Party has not complied with the terms of this Agreement, the Party who believes that a breach has occurred shall give all other Parties written Notice of the breach. The parties agree that they will attempt to resolve, through good faith negotiation, any issues identified in the Notice. If, however, the Parties cannot resolve the issues identified in the Notice within thirty (30) days of the date that the Notice was sent, the complaining Party may file an action in Multnomah County Circuit Court to enforce the terms of this Agreement. The Parties to this Agreement stipulate that the Multnomah County Circuit Court shall have jurisdiction over the Parties and over any action seeking to enforce the terms of this Agreement, and that such an action is not subject to or limited in any way by the provisions of ORS 183.480 *et seq*.

12. If DEQ fails to meet the timeline established in Paragraph 3 of this Agreement, nothing in this agreement will limit the authority of the Petitioners to refile the cases described in Paragraph 1 of this Agreement or to file new challenges to registrations under the 1200 Cols or 1200-Z permits.

13. Attorney Fees. DEQ Agrees to pay petitioners $19,250 in attorney fees.

14. Waiver. The waiver by a party of any breach of any provision of this Agreement by the breaching party, or the failure of the non-breaching party to insist upon strict performance of any provision of this Agreement shall not operate or be construed as a waiver of any subsequent breach by the breaching party.

15. Counterparts. The parties agree that this Agreement may be executed in one or more counterparts, each of which shall be deemed an original, but all of which shall constitute one and the same original. Signatures exchanged via facsimile or e-mail shall have the same force and effect as the original signatures.

16. Enforceability. In the event any portion, award, clause, phrase, sentence, or paragraph of this Agreement is declared void or otherwise unenforceable, the parties agree that such portions shall be considered severable and separable from the remainder, and the validity of the remainder of this Agreement shall remain unaffected.

17. Entire Agreement. This Agreement represents the entire agreement among the Parties and may be modified or waived only by a writing signed by all Parties.

18. Consultation. The Parties to this Agreement have had the opportunity to confer with counsel regarding this release. Each party's counsel has had the opportunity to prepare and cooperate in drafting this Agreement.

Respondents **DICK PEDERSEN, OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY, and OREGON ENVIRONMENTAL QUALITY COMMISSION**

By:_____

Name:_____

Title:_____

Date:_____

Petitioners **NORTHWEST ENVIRONMENTAL DEFENSE CENTER, COLUMBIA RIVERKEEPER, and MARK RISKEDAHL**

By:_____

Name:_____

Title:_____

Date:_____

State of Oregon
Department of Environmental Quality Memorandum

Date: May 22, 2009

To: Environmental Quality Commission

From: Dick Pedersen, Director

Subject: Agenda Item E, Action Item: Morsman contested case

Background

The Oregon Department of Environmental Quality implements environmental protection laws. Most people voluntarily comply with the laws; however, DEQ may assess civil penalties and orders to compel compliance or create deterrence. When a person or business does not agree with DEQ's enforcement action, they have the right to an appeal and a contested case hearing before an administrative law judge.

On December 19, 2007, DEQ issued Phillip and Brigitte Morsman a Notice of Violation, Department Order and Civil Penalty alleging four violations:

1. Failing to decommission the waste disposal well and failing to connect their 55-unit mobile home park to the City of Madras's sewer system in violation of their permit, ORS 468B.025(2) and OAR 340-044-0015(3)(b);

2. Discharging untreated or partially treated wastewater or septic tank effluent directly or indirectly onto the ground surface on or about June 18, 2006, October 18, 23 and 25, 2006, in violation of OAR 340-071-0130(3);

3. Pouring caustic soda into the waste disposal well in June 2006, in violation of their permit and OAR 340-044-0017(1); and

4. Failing to report waste disposal well failures to DEQ within 24 hours on or about June 18, 2006 and October 18, 2006, in violation of their permit and OAR 468B.025(2).

DEQ assessed civil penalties for violations one and two. The Morsmans appealed the Notice and Order on January 8, 2008, and a contested case hearing was held on July 25 and 30, 2008. Administrative Law Judge James Han issued a proposed Order on October 21, 2008, and the Morsmans petitioned the Environmental Quality Commission for review of the proposed Order on November 20, 2008

On August 8, 2008, pursuant to OAR 340-044-0015(3)(b)(B), the Morsmans requested that Director Pedersen grant them a waiver from the requirement to decommission their waste disposal well and connect to municipal sewer. On October 6, 2008, Director Pedersen denied the waiver request. On October 16, 2008, the Morsmans again requested waiver from Director Pedersen, which he denied on October 21, 2008. On October 28, 2008, the Morsmans requested a contested case hearing to review Director Pedersen's denial of their waiver request. A contested case hearing is scheduled before an administrative law judge for July 15, 2009.

Standard and Burdens of Proof

The standard of proof for administrative proceedings is by a preponderance of the evidence.

Pursuant to ORS 183.450(2), the proponent of a fact or assertion has the burden of proving that fact or assertion. DEQ has the burden to prove the violations asserted in the Notice. The Morsmans do not deny that the violations occurred, but offer affirmative defenses to those violations, which means that the Morsmans have the burden of proving their defenses.

Conclusions of the Administrative Law Judge

On October 15, 2008, the administrative law judge issued a proposed order. Judge Han concluded that:

1. The Morsmans violated Schedule D, Condition 5 of the permit, ORS 468B.025(2), and OAR 340-044-0015(3)(b) by failing to decommission the waste disposal well and failing to connect to the city of Madras's sewer system since November 7, 2007. This was violation one.

2. The Morsmans violated OAR 340-071-0130(3) by discharging untreated or partially treated wastewater or septic tank effluent directly or indirectly onto the ground surface on or about June 18, 2006, October 18, 2006, October 23, 2006, and October 25, 2006. This was violation two.

3. The Morsmans did not violate Schedule D, Condition 7 of the permit and OAR 340-044-0017(1) by pouring caustic soda into the waste disposal well in June 2006.

4. The Morsmans violated Schedule D, Condition 6 of the permit and ORS 468B.025(2), by failing to report waste disposal well failures to DEQ within 24 hours on or about June 18, 2006. The Morsmans did not violate Schedule D, Condition 6 of the permit and ORS 468B.025(2) on October 18, 2006.

5. The Morsmans are subject to a civil penalty assessment in the amount of $194,342.

Issues On Appeal The Morsmans' appeal relates only to violations one and two.

Violation one: Failure to decommission the waste disposal well and failure to connect to the City of Madras's sewer system, in violation of Schedule D, Condition 5 of the permit, ORS 468B.025(2) and OAR 340-044-0015(3)(b).

1. Availability of municipal sewer

The Morsmans' argument:

In their exceptions and brief, the Morsmans argue that municipal sewer is not reasonably available to their property due to the distance involved and that the potential cost to the Morsmans makes it unavailable. They argue that because the DEQ did not force the issue of connection immediately when the municipal sewer became available, the determination of availability should be based on the Morsmans' finances.

DEQ's argument:

The Morsmans' proposed interpretation of the term reasonably available is not supported by law. The Environmental Quality Commission defined "reasonably available" in OAR 340-044-0015(3)(b)(A)(i), which states:

"(A) A sanitary sewer ***shall*** be deemed available to a property when, (i) A sanitary sewer is extended to within 300 feet from the property boundary for a single family dwelling or other establishment with a maximum design flow not more than 450 gallons per day, or 200 feet multiplied by the number of dwellings or dwelling equivalents for other establishments or greater flows."

The rule is clear and unambiguous as to the commission's definition of reasonably available. The Morsmans' property is approximately 1700 feet from the city sewer, which is within the area addressed by this rule as 200 feet multiplied by 55, or the number of dwellings or dwelling equivalents..

Judge Han's findings:

"[The Morsmans] do not dispute that the city's sewer line is reasonably available at Lee Street, 1,230 feet from their trailer park. Under OAR 340-044-0015(3)(b)(A)(i), sewer service would have been deemed available to the Morsmans' trailer park when the city's sewer was 11,000 feet from the park (55 dwellings times 200 feet). Accordingly, the Morsmans' failure to connect to the city's sewer after they received the DEQ's notice violated the terms of the permit."

2. A de facto waiver

The Morsmans' Argument

The Morsmans argue that they have had a de facto waiver from the requirement that they connect to municipal sewer. They contend that because they were not asked to connect to municipal sewer when it was at the maximum distance away from their property, or 11,000 feet, that DEQ granted them an implicit waiver in 1999 by issuing a permit to operate the disposal well rather than connecting to municipal sewer. They also argue that DEQ has taken a position that the Morsmans would only have to connect to municipal sewer when it was financially practicable.

DEQ's Argument

The waiver provision in OAR 340, Division 44 does not provide for an implicit waiver. It expressly states that only the director of DEQ, on a case-by-case basis, may grant a waiver.

Even if an implicit waiver was available under Division 44, the Morsmans failed to present any testimony or exhibits to prove this affirmative defense at the hearing. There is no evidence on the record that DEQ ever granted a waiver – de facto or otherwise. DEQ consistently and repeatedly told the Morsmans that they had only an interim permit and that they were required to connect to municipal sewer. The Morsmans have presented no evidence that disputes this.

The rules provide a mechanism to seek a waiver of the requirement to connect to city sewer, and the Morsmans did not follow the legal procedure to seek a waiver until after the contested case hearing.

Judge Han's findings:

"The DEQ's interpretation of its waiver rule is both plausible and reasonably consistent with the rule's wording. I am required to defer to the DEQ's interpretation of its own rules based on OAR 340-011-0545(3).

"The Morsmans did not request a waiver from the DEQ until the day of the hearing of this contested case."

"The city's sewage line had been within 11,000 feet of the Morsmans' park for years. The DEQ had not required the Morsmans to connect to the sewage line because it was unclear whether the city's existing sewer lines had the capacity to receive the Morsmans' sewage and the DEQ was waiting for the city's new and larger sewage line to move closer to the Morsmans' park."

3. Exemption from liability under OAR 340-044-0015(3)(b)(B)

The Morsmans' argument:

The Morsmans argue that they should be exempt from the requirement that they decommission their sewage disposal well and connect to City of Madras sewer system by OAR 340-044-0015(3)(b)(B), which provides:

"On a case-by-case basis, the [director of DEQ] may waive the requirement to connect to sewer if the [director of DEQ] determines that connection to the sewer is impracticable or unreasonably burdensome."

The Morsmans allege that they do not have the finances to connect to the City sewer and therefore, the requirement is impracticable and unreasonably burdensome.

DEQ's argument:

The EQC may not consider the waiver provision of OAR 340-044-0015(3)(b)(B) as an affirmative defense because Judge Han did not have the jurisdiction to grant a waiver and because the issue is not ripe for appeal.[1] Please see the background for more information or clarity on this issue.

Judge Han's findings:

"The Morsmans did not request a waiver from the DEQ until the day of the hearing of this contested case. The rule provides that the waiver is within the discretion of the DEQ's director. The director has not ruled on the Morsmans' waiver request and it would be premature for me to do so now."

4. No actual harm defense

The Morsmans' argument

The Morsmans argue that their disposal well causes no actual harm to the environment, and therefore they should not have to decommission it and connect to municipal sewer. They argue that the well is no deeper than it has ever been and that past testing shows that it poses no threat to the City of Madras drinking water wells. They also argue that the

[1] Because Administrative Law Judge Han did make findings of fact on the OAR 340-044-0015(3)(b)(B) issue and did opine that he did not find that the Morsmans had met their burden of proof in showing that they should be granted a waiver, both sides did brief this issue to the commission. However, since the hearing that resulted in this appeal today should not have covered this issue, and because the Morsmans have asked for a contested case hearing where the issue will be heard, this issue should not be considered in this appeal.

City of Madras gets its drinking water from the Deschutes Valley water supply and does not currently use the wells in Madras for its drinking water.

DEQ's argument

The DEQ need not prove a violation actually causes environmental harm to enforce its rules and regulations. The Environmental Quality Commission promulgates many of its rules for the purpose of preventing environmental damage and human health hazards.

DEQ has a duty to protect groundwater from pollution and is legitimately concerned about the potential impact of the Morsmans' disposal well on Madras's drinking water. Madras citizens use one of the three wells for drinking water during the summer when the water supply runs low. The City receives its drinking water from Deschutes Valley based on a renewable two-year contract. Deschutes Valley could choose to not renew this contract at any time. Finally, it is not acceptable or legal to pollute any waters of the state, regardless of whether they are used for drinking water.

Judge Han's findings

"These arguments were not persuasive. The Environmental Quality Commission made the policy decision to phase out disposal wells when alternative waste disposal systems become reasonably available. OAR 340-044-0010. The applicable rules do not require a showing of actual harm before the DEQ can require the well to be decommissioned. If an alternative disposal system has become reasonably available, it is no defense that the well has not failed since October 2006 and that the well has not actually contaminated groundwater. *See City of Klamath Falls v. Environmental Quality Commission*, 318 Or 532 (1994)."

Violation 2: Discharge of untreated or partially treated wastewater or septic tank effluent directly or indirectly onto the ground surface, in violation of OAR 340-071-0130(3) on June 18, 2006 and October 18, 23 and 25, 2006.[2]

1. October 18, 23 and 25, 2006 discharges of wastewater

The Morsmans's argument:

The Morsmans do not dispute that wastewater discharged from their well to the ground surface on these dates, but they claim the affirmative

[2] Note that only the October 2006 discharges are at issue because the Morsmans did not take exception to Judge Han's ruling on the June 2006 discharges in their Exceptions and Brief.

defense that they are not responsible for the discharges because the well was sabotaged and therefore they should not be held liable. The Morsmans allege that a green sweatshirt and a wig were pulled out of the well. They further claim that the disposal well operated without discharge before and after the sabotage. They argue that discharges of sewage from the well do not mean the well has failed.

DEQ's Argument:

The discharge is a strict liability violation, and therefore whether the Morsmans intended for the discharge to occur or not is only relevant in determining the mental state part of the civil penalty calculation. Further, it is more than likely that the well had been failing for much longer than just the month of October, as evidenced by the lush green grass in the path of the sewage leading to the ditch, in contrast to the dead brown grass in all other areas surrounding it.

DEQ cannot be sure that the well was sabotaged. There are no photos putting a sweatshirt, wig or anything else at the well site and there is no report, police or other, to corroborate this allegation. When the well was drilled into, the baler retrieved no items that would have obstructed the well. It is also not known that any sabotage caused the well to discharge. Even after the Morsmans allegedly pulled the green sweatshirt out, the well continued to fail for a week.

The well failed by definition. OAR 340-071-0100(66) states that a failing system means any system that discharges untreated or incompletely treated sewage or septic tank effluent directly or indirectly onto the ground surface or into public waters or that creates a public health hazard. Therefore, the Morsmans' well failed by definition.

Judge Han's findings:

"Neither OAR 340-071-0130(3) nor OAR 340-012-0060(1)(d) require intent or even negligence for a violation. Those considerations may be relevant to determine the amount of the civil penalty. But simply owning or operating a waste disposal system that discharges sewage onto the ground—even if the discharge were due to vandalism—constitutes a violation. Likewise, the fact that the well overflowed during the pumping of the septic tank is enough for a violation and it is no defense that the DEQ did not allow the Morsmans to drill the well until October 26, 2006."

"... The area uphill of the well head was dry and brown, while the brush below the well head was thicker and greener, and algae grew in the roadside ditch. These conditions showed that the discharge was not a one-time event; the disposal well had discharged nutrients and moisture onto the ground surface over an extended time."

"On October 18, 2006, Mr. Baggett of the DEQ inspected the Morsmans' park and noticed sewage had come out of the well, flowed down the roadside ditch to a culvert under the public road, and accumulated on a highway embankment. A pumper truck was there pumping the septic tank. Mr. Morsman and the pumper truck operator pulled a green shirt and other materials out from the well. After Mr. Morsman pulled the materials out of the well, the well still drained slowly."

EQC Authority

EQC has the authority to hear this appeal under OAR 340-011-0575.

DEQ's contested case hearings must be conducted by an administrative law judge.[3] The proposed order was issued under current statutes and rules governing the Administrative Law Judge Panel.[4]

Under ORS 183.600 to 183.690, EQC's authority to change or reverse an administrative law judge's proposed order is limited, as follows:

1. The EQC may not modify the form of the administrative law judge's proposed order in any substantial manner without identifying and explaining the modifications.[5]
2. The EQC 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.[6] Accordingly, the EQC 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 EQC may not consider any new or additional evidence, but may only remand the matter to the administrative law judge to take the evidence.[7]

[3] ORS 183.635.
[4] ORS 183.600 to 183.690 and OAR 137-003-0501 to 137-003-0700.
[5] ORS 183.650(2).
[6] 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.
[7] OAR 137-003-0655(5).

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.[8]

(1) In addition, the EQC will not consider matters not raised before Administrative Law Judge Han unless it is necessary to prevent a manifest injustice. [9] The EQC will not remand a matter to the administrative law judge 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.[10]

Alternatives

The EQC may:

1. As requested by DEQ, issue a final order adopting Judge Han's proposed order; or

2. Issue a final order determining that the findings of fact were not based on a preponderance of the evidence, explain why and amend Judge Han's proposed order accordingly.

Attachments

A. The Morsmans' Reply to DEQ's Answering Brief, dated March 5, 2009
B. DEQ's Answering Brief, dated February 13, 2009
C. The Morsmans' Exceptions and Brief, dated January 14, 2009
D. Administrative Law Judge's Proposed Order, dated October 21, 2008
E. Notice of Violation, Department Order and Civil Penalty Assessment, dated December 19, 2007

Approved:

Jane K. Hickman, Administrator
Office of Compliance and Enforcement

Report prepared by: Leah Koss, Environmental Law Specialist
Phone: (503) 229-6408

[8] OAR 137-003-0655(7), referring to ORS Chapter 244; OAR 137-003-0660.
[9] OAR 340-011-0132(3)(a).
[10] *Id.* at (4).

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION

OF THE STATE OF OREGON

IN THE MATTER OF:	DEQ Case No. WQ/D-ER-07-186
PHILLIP and BRIGITTE MORSMAN, doing business as TOPS TRAILER PARK, Petitioners	OAH Case No.: 800409
	PETITIONER'S REPLY BRIEF

Petitioners, Phillip and Brigitte Morsman, dba TOPs Trailer Park ("Morsmans"), submit this reply brief in response to the answering brief submitted by the Department on February 13, 2009.

I. OVERVIEW

The TOPs Trailer Park ("the park") has been in operation since the mid-1950s. The Morsmans are an older couple who have managed the TOPs Trailer park since 1974 and then purchased the park in 1994 with a mortgage. The park has 55 to 60 units, almost all of which are older singlewides occupied by low income families and senior citizens. Almost all of the residents of the park own their singlewides.[1] The park is in Jefferson County on the west side of Highway 26 outside the city limits of the City of Madras. The

[1] This is financially significant because it means that while the Morsmans receive rental income for the pad they rent to residents of the park they generally do not receive rental income for the mobilehomes themselves.

Michael F. Sheehan
Attorney at Law
33126 Callahan Road
Scappoose, Oregon 97056
503-543-7172 Fax 503-543-7172

park is a major low income housing resource for the Madras area.

The nearest City water well is approximately one third of a mile on the other side of Highway 26 (see DEQ Exhibit A-10). TOPs is at the far upper left of the picture, and the yellow line across the highway leads from the TOPs drywell 1,682 feet to the City's well. Research on this well in the DHS Drinking Water Program records shows that there is no record of any sewage-related pollution of this well from the beginning of the available data in 2001 onward. (Exhibit R-43).

The City's next nearest well is well #3, which is over a mile away from the park. (See DEQ Exhibit A-11). Again TOPS is at the very top of the page in the middle and follow the yellow line 5,315 feet to the well at the bottom middle of the page. Here also there was no claim made that there was any impact on this well from the drywell at TOPs due to the sabotage in 2006 or otherwise. And lastly it should be noted that the City of Madras gets its water supply from Deshutes Valley Water from a source almost 20 miles from TOPs and does not use either of these wells for its drinking water supplies. (Testimony of Morsman and Morgan).

The claim that the drywell posed a threat to the Madras water supply was empirically unsupported. There has been no evidence of any problem from 1954 when the system was constructed up to the time permits were required.

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Michael F. Sheehan
Attorney at Law
33126 Callahan Road
Scappoose, Oregon 97056
503-543-7172 Fax 503-543-7172

II. THE CENTRAL ISSUE

The DEQ Demands that the Morsmans Build A Sewer Line 2000 Feet Through an Intervening Unsewered Residential Neighborhood to Connect to a City of Madras Sewer Line.

A. The DEQ's Position

The DEQ's position is that the Morsmans should be required to either build the sewer line regardless of cost or disconnect the residences in the park from the existing system, thereby forcing the closure of the park.

The DEQ claims that its position is justified for the following reasons:

1. DEQ rules say that an operation like the Morsmans' has to connect to a city sewer when that sewer is "available." The rule then defines "available" as being within approximately 11,000 feet (2+ miles) of the park. OAR 340-044-0015(3)(b)(A)(i).
2. The drywell at the park is 326 feet deep and this poses a threat to the City of Madras' drinking water wells.
3. The existing septic system in the park has "failed."
4. The City sewer is now within 2000 feet of the park.
5. DEQ claims (Answer, p.12, lines 5-11) that the construction cost estimates obtained by the Morsmans were not based on engineered plans, but only on phone conversations between Mr. Morsman and the companies.
6. DEQ also asserts (Answer p.12, lines 12-15) that contrary to the claim of the Morsmans that the City refused to provide construction cost estimates for the

Michael F. Sheehan
Attorney at Law
33126 Callahan Road
Scappoose, Oregon 97056
503-543-7172 Fax 503-543-7172

extension of the line from Lee Street to the park, that the city did provide such cost data in a letter dated April 1, 2008.

7. DEQ further claims (Answer, p.11 lines 17ff) that notwithstanding the Morsmans' financial condition or the cost of building the sewer line to Lee Street, the project is not "impracticable." This is so, the DEQ argues, because since the Morsmans were able to get cost estimates from engineering firms for doing the work, that must mean that the work is therefore "possible"and so therefore not "impracticable" as defined in Webster. (See p.11, footnote 13).

B. The Morsmans' Response

In response the Morsmans present the following points:

1. There is an exception to the rule cited by the DEQ requiring connection when a city sewer is within 2+ miles of the park. This exception allows the DEQ to waive the connection requirement:

> "On a case-by-case basis, the Director may waive the requirement to connect to sewer if the Director determines that connection to the sewer is **impracticable or unreasonably burdensome.**" OAR 340-044-0015(3)(b)(B). (Emphasis added).

Since the park has always been within 2+ miles of the City of Madras sewer, and the DEQ has never insisted that the Morsmans build a connection at that distance, the Morsmans have assumed that the staff, on behalf of the director, have over the years implicitly granted a de facto

Michael F. Sheehan
Attorney at Law
33126 Callahan Road
Scappoose, Oregon 97056
503-543-7172 Fax 503-543-7172

waiver of the 2+ mile connection requirement, which at 2+ miles would clearly be financially impossible for the Morsmans.

2. The City extended the city sewer to the new hotel property at Cedar Street[2], one block below Lee Street, and the DEQ did not insist that the Morsmans connect at that point.

3. This understanding on the part of the Morsmans is supported by DEQ's Eastern Region Administrator Joni Hammond who has made it clear that the department's "definition" of the rule in this case is that "reasonably available" means 1/4 of a mile. See R-54, p.1. See also Hammond, R-54, p.2, ¶2:

> At the meeting "reasonably available" was defined as a location approximately 1/4 mile from the TOPS Trailer Park.

and again, Hammond, R-54, p.3:

> Based on the number of dwelling units at the park, these rules would require TOPS to extend a sewer line up to 2.5 miles, while we have defined a reasonable distance in this case as approximately 1/4 mile.

4. Thus the Morsmans (and their attorney) were taken aback at the hearing in front of Judge Han when the DEQ argued that there had never been a waiver, and that

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[2] The geography is roughly that downtown Madras is more than a mile south of the park. Going north from downtown there is Cedar Street where the new hotel property is and where the city extended its sewer. Going another long block north is Lee Street where the sewer now stops. Lee Street is the city limits. North of Lee Street there is a residential neighborhood with no sewer. North of that neighborhood there is a large sage brush field and then the park. North of the park is again within the city limits and is all industrial leading up to the Madras airport.

Michael F. Sheehan
Attorney at Law
33126 Callahan Road
Scappoose, Oregon 97056
503-543-7172 Fax 503-543-7172

without a formal written waiver request and a formal written waiver there could not be any waiver of the 2+ mile rule.

5. The Morsmans then immediately filed a formal written request for a waiver. The residents in TOPs are overwhelmingly low income; revenue from the park is therefore limited. (Testimony of Morsmans). The Morsmans testified as to their income from the park and from Social Security. The Morsmans presented their income tax statements in their request for a waiver to the director. These statements show that their net income was less than $15,000 in 2006 and less than $20,000 in 2007. (Attachment 1 to opening brief). The Jefferson County Assessor's sheet issued in June 2008 for the TOPs property shows the real market value of the property as $606,233. (Attachment 2 to opening brief). These two attachments were exhibits to the request for reconsideration of the waiver filed with the Director on October 16, 2008. There is a $700,000+ mortgage already on the park (Exhibit R-35, pp.1-3), recall that the Morsmans bought the park on a mortgage in 1994.

6. The Morsmans asked for and received cost estimates from three engineering firms to build to Lee Street, and these are in the $400,000+ range. (Exhibits R-30, R-31, R-32). This does not include regulatory approvals and system development charges (SDCs) from the City and County which would add somewhere around $30,000 to $35,000 to the bill.

Michael F. Sheehan
Attorney at Law
33126 Callahan Road
Scappoose, Oregon 97056
503-543-7172 Fax 503-543-7172

7. The Morsmans have asked their bank if it would be possible to get a $300,000 loan to build the sewer line. (This is before it became apparent that the estimated cost would be in the $430,000 range). The response from the bank, based on the revenues generated by the park and the existing mortgage–and certainly taking into account the current very touchy nature of mortgage lending–was to refuse to make any such loan. (Exhibit R-36).

8. DEQ claims (Answer, p.12, lines 5-11) that the construction cost estimates obtained by the Morsmans were not based on engineered plans, but only on phone conversations with engineering and construction firms. Yet the Morsmans solicited and received three estimates in writing from engineering and construction firms with experience in the area. (R-30, R-31 and R-32). Two of these estimates (Knife River and Hooker Creek Asphalt and Paving) were for $400,000 and $392,800 respectively. The third estimate was for engineering plans from Tye Engineering & Surveying. Their bid just for preparing the engineering design plans was $35,450. (Exhibit R-31). Thus while it would have been more precise to have the engineering plans, the price for just those plans alone was $35,000+. Given the income of the Morsmans, and the fact that they had to pay out more than $20,000 in pumping charges during the week in October 2006 while the DEQ delayed in allowing them to clear the drywell shaft of the materials blocking it, they did not have another $35,000 in their savings account for formal engineering plans. Under these circumstances, and in terms of just getting a sense of the magnitude of the

Michael F. Sheehan
Attorney at Law
33126 Callahan Road
Scappoose, Oregon 97056
503-543-7172 Fax 503-543-7172

costs likely to be involved, the two estimates from Knife River and Hooker Creek seemed adequate. The problem was made more difficult for the Morsmans since the city–having recently been involved in building the sewer from downtown to the new hotel–refused to provide any cost of construction data. (R-58).

9. The DEQ in its answer also claims that the Morsmans' assertion that the City refused to provide construction cost data is "completely false" and that Madras city manager Morgan did provide cost data in a letter of April 1, 2008. A review of Mr. Morgan's letter of April 1, 2008 shows that the only cost information provided there related to city fees and charges and not construction costs, Mr. Morgan having already refused at that point to provide information on construction costs. We would be happy to provide a copy of the city's letter on request.

10. Community Development Block Grant (CDBG) money had been solicited by the City for the project some time ago but the application was in the end not sent in by the City because they could not make the showing that a majority of the families that would have access to the new sewer line would be low income. The problem was that though virtually all the families in TOPs are low income, the sewer line would have to be built through the residential neighborhood south of TOPs. This neighborhood, if you assume–as they did–that vacant lots would not be occupied by low income families, then meant that a low income majority was missed by a hair. Thus the City abandoned the effort to obtain CDBG funding. (Exhibit R-44).

Michael F. Sheehan
Attorney at Law
33126 Callahan Road
Scappoose, Oregon 97056
503-543-7172 Fax 503-543-7172

11. In its Answer (p.11, lines 17ff and fn13) the DEQ claims that notwithstanding the Morsmans' financial condition and the cost of building the sewer line to Lee Street, the project is not "impracticable" because since the Morsmans were able to get cost estimates from engineering firms for doing the work, doing the work must therefore be "possible" and therefore not "impracticable" as defined in "Webster." (See p.11, footnote 13). Yet clearly this is not what is meant by "impracticable or unduly burdensome" in the language of the waiver rule, which is clearly directed at financial impracticability or burden relative to those who would have to pay.

12. The DEQ claims that the sewer system in the park has "failed." This claim is based on an idiosyncratic definition of the word "failed." When the well was blocked in 2006 there was a small amount of sewage that flowed onto the ground. Yet as soon as the well was cleared of the sweatshirt and other obstructions blocking it, the system was fully operational and has worked fine without any difficulty since then.

13. The claim by the DEQ staff that the drywell operation poses a significant threat to the City's drinking water supply should be placed in context. First, the drywell has been there and in operation since approximately 1954 with no record of any adverse impact on the City's wells. Second, as noted above, the nearest city well is approximately 1600 feet away on the other side of the highway, and the State's well testing data shows no sewer related contamination since the time testing began several years ago. The next nearest well is a mile away, and its too shows

Michael F. Sheehan
Attorney at Law
33126 Callahan Road
Scappoose, Oregon 97056
503-543-7172 Fax 503-543-7172

11. In its Answer (p.11, lines 17ff and fn13) the DEQ claims that notwithstanding the Morsmans' financial condition and the cost of building the sewer line to Lee Street, the project is not "impracticable" because since the Morsmans were able to get cost estimates from engineering firms for doing the work, doing the work must therefore be "possible" and therefore not "impracticable" as defined in "Webster." (See p.11, footnote 13). Yet clearly this is not what is meant by "impracticable or unduly burdensome" in the language of the waiver rule, which is clearly directed at financial impracticability or burden relative to those who would have to pay.

12. The DEQ claims that the sewer system in the park has "failed." This claim is based on an idiosyncratic definition of the word "failed." When the well was blocked in 2006 there was a small amount of sewage that flowed onto the ground. Yet as soon as the well was cleared of the sweatshirt and other obstructions blocking it, the system was fully operational and has worked fine without any difficulty since then.

13. The claim by the DEQ staff that the drywell operation poses a significant threat to the City's drinking water supply should be placed in context. First, the drywell has been there and in operation since approximately 1954 with no record of any adverse impact on the City's wells. Second, as noted above, the nearest city well is approximately 1600 feet away on the other side of the highway, and the State's well testing data shows no sewer related contamination since the time testing began several years ago. The next nearest well is a mile away, and its too shows

Michael P. Sheehan
Attorney at Law
33126 Callahan Road
Scappoose, Oregon 97056
503-543-7172 Fax 503-543-7172

no contamination. Finally, the city gets its drinking water from Deschutes Valley Water from a source approximately 20 miles away, and not from these wells.

14. The Morsmans have made it clear that they would be willing to enter into an agreement with the City and the DEQ to connect to the City's sewer system when it comes close enough to be within their financial capability. And since the City is north, south and west of the park and is encouraging industrial development of the city's airport property to the north of the park, it would be reasonable to expect that the City would bring the sewer up through the Lee Street neighborhood at some point, perhaps with the assistance of stimulus or CDBG funding. When the cost can be brought within the Morsmans' reasonable financial capabilities they are certainly willing to contribute to the connection cost and resolve this ongoing dispute.

III. CONCLUSIONS

The Morsmans are a hard working older couple that live in, manage and repair and run the TOPs Trailer Park on a day to day basis. The park has 55 resident families almost all of whom are elderly or low income and almost all of whom reside in and own their own singlewide manufactured homes. The revenues from the park are not substantial. The impact of the current economic recession is significant in the Madras area, with unemployment in Jefferson County as of January at 16.2 percent. Were the park to be forced to close, the families in the park would be forced to leave. Most if not all would have to abandon their singlewides, since it would be expensive to move them, parks that

Michael F. Sheehan
Attorney at Law
33126 Callahan Road
Scappoose, Oregon 97056
503-543-7172 Fax 503-543-7172

would accept these older homes are very limited, and the costs to place and reconnect in a new park even if one could be found, would be significant.

The Morsmans attempted to present evidence on these matters in the contested case proceeding, but the testimony of Maura Schwartz (the Morsmans' expert witness), and of residents of the park was refused. Judge Han held that only the impacts on the Morsmans and not the impacts and burden on the low income families in the park were relevant in determining whether ordering the Morsmans to either find the money to construct the sewer or close the park and render the residents homeless, was "unduly burdensome" in terms of the waiver provision of the rules.

In all this then we have proof offered by the Morsmans in the form of their testimony along with the income tax information presented in their request for a waiver (Attachment 1 to the Morsmans' opening brief). We presented exhibits showing that the current mortgage substantially exceeds the market value of the property. (Attachment 2 to the opening brief). We have the three construction cost estimates presented by the Morsmans showing that the costs are well out of their income capability to finance. (R-30, R-32 and R-32). We have the letter from the Morsmans' own bank (R-36) refusing a loan request of even $300,000, and this was before the much higher estimates in the $400,000 range were received from the construction companies. And then there are the various application fees and other city related costs which would be applicable as well.

The DEQ says yes, but you have to balance that against the threat of the drywell at 327 feet to the drinking water supplies of the City of Madras. And this is a legitimate

Michael P. Sheehan
Attorney at Law
33126 Callahan Road
Scappoose, Oregon 97056
503-543-7172 Fax 503-543-7172

question. Our response is that the drywell has not been deepened (R-24), the "threat" is no worse than it has ever been in the course of its operation since the mid-fifties (R-23). The drywell and septic system are currently fully operational. The problems in 2006 were due to a clogging of the wellshaft and a resultant spill on to the ground; that problem has been repaired; the drywell and septic system have been fully operational and permitted since then. There has been no evidence of any impact of the drywell on the two nearest city wells according to the state well testing data, and the City gets its water supply from Deschutes Valley Water from a source 20 miles away in any event.

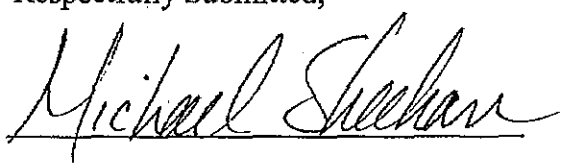
The DEQ did not consider the threat to the City's water supply to be so compelling when the City sewer was within 2 miles, as it has been for decades; it did not consider the threat so compelling before the city sewer was brought to Lee Street. In these times to insist that the Morsmans either come up with somewhere approaching half a million dollars or close the park, is to mandate the ruin of the Morsmans, the loss of housing to 55 low income or elderly families, and a substantial increase in economic misery in Jefferson County. Under these circumstances would it not make more sense to have the City apply again for CBDG funding and perhaps stimulus money along with bond funding to bring the sewer up through the intervening residential neighborhood to the park, and then the Morsmans would pay the city fees and a reasonable charge over time to finance the connection from that point? Why does the DEQ insist on a result that would result in a disaster? The rule provides that "the director may waive the requirement to connect to sewer if the Director determines that connection to the sewer is impracticable or

Michael F. Sheehan
Attorney at Law
33126 Callahan Road
Scappoose, Oregon 97056
503-543-7172 Fax 503-543-7172

unreasonably burdensome." In these times and under these circumstances it makes sense for the City and the state (CDBG) to come up with a plan to provide this public resource in a way that does not cause a disaster to this number of families. The Morsmans are willing to do their share, but they are not financially capable of bearing the entire burden at the outset when the burden is of this magnitude and complexity.

Dated this 4th day of March, 2009.

Respectfully Submitted,



Michael F. Sheehan, OSB #88126
Attorney for Respondents Phil and Brigitte Morsman

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Michael F. Sheehan
Attorney at Law
33126 Callahan Road
Scappoose, Oregon 97056
503-543-7172 Fax 503-543-7172

CERTIFICATE OF SERVICE AND FILING

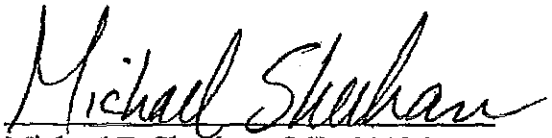
DEQ Case No. WQ/D-ER-07-186
OAH Case No. 800409

I hereby certify that on the date set forth below I served the following document:

PETITIONERS' REPLY BRIEF

by hand delivering a the original and one true copy to the offices of the persons or entities listed below.

DATED: March 5, 2009.



Michael F. Sheehan, OSB 88126
33126 Callahan Road
Scappoose, Oregon 97056
503-543-7172 Fax 503-543-7172
mikesheehan@centurytel.net

SERVICE LIST

Environmental Quality Commission
10th Floor
811 SW Sixth Avenue
Portland, Oregon 97204

Leah Koss
DEQ Compliance and Enforcement
811 SW Sixth Ave
Portland, OR 97204

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BEFORE THE ENVIRONMENTAL QUALITY COMMISSION

OF THE STATE OF OREGON

IN THE MATTER OF: PHILLIP AND BRIGITTTE MORSMAN, Doing business as Tops Trailer Park, Respondents.	DEPARTMENT'S ANSWERING BRIEF No. WQ/D-ER-07-186 JEFFERSON COUNTY

The Department of Environmental Quality (Department) submits this Answering Brief to the Environmental Quality Commission (Commission) for its consideration in the appeal of the Administrative Law Judge's (ALJ's) Proposed Order in Notice of Assessment of Civil Penalty No. WQ/D-ER-07-186 (Notice), filed by Phillip and Brigitte Morsman, Respondents.

I. INTRODUCTION

Mr. and Mrs. Morsman purchased the Tops Trailer Park in 1994. The Department issued the Morsmans Water Pollution Control Facilities (WPCF) Permit No. 4400 (the Permit) in 1999 for the temporary use of their waste disposal well. On several occasions in June and October 2006, the well discharged sewage onto the ground surface at the Park. On December 19, 2007, the Department issued the Morsmans Notice of Violation, Department Order and Assessment of Civil Penalty No. WQ/D-ER-07-186 (Notice) in the amount of $194,842. The Morsmans appealed and a contested case hearing was held before Administrative Law Judge (ALJ) James Han on July 25 and 30, 2008. ALJ Han concluded that the Morsmans were liable for three of the four violations cited in the Notice, for the Department Order, and for a civil penalty of $192,842. On November 20, 2008, the Morsmans filed a Petition for Review with the Commission. The burden of proof in administrative law cases is a "preponderance of the evidence" and ALJ Han found that the Department met its burden. In the following Answering Brief, DEQ will address the Morsmans' main arguments below and address the Morsmans' specific exceptions to the proposed order as they arise in the context of the broader arguments.

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II. ADMINISTRATIVE LAW JUDGE'S CONCLUSIONS

The ALJ concluded that: (1) Respondents violated Schedule D, Condition 5 of the Permit, ORS 468B.025(2)[1] and OAR 340-044-0015(3)(b)[2], by failing to decommission the waste disposal well and failing to connect to the City of Madras's sewer system since November 7, 2007; (2) Respondents violated OAR 340-071-0130(3)[3], by discharging untreated or partially treated wastewater or septic tank effluent directly or indirectly onto the ground surface on or about June 18, 2006, October 18, 2006, October 23, 2006 and October 25, 2006; (3) Respondents did not violate Schedule D, Condition 7 of the Permit and OAR 340-044-0017(1) by pouring "caustic soda" into the waste disposal well in June 2006; (4) Respondents violated Schedule D, Condition 6[4] of the Permit and ORS 468B.025(2), by failing to report waste disposal well failures to the Department within 24 hours on or about June 18, 2006, but Respondents did not violate this condition or statute on October 18, 2006; and (5) Respondents are subject to civil penalties of $192,842 for Violation 1 and $1,500 for Violation 2. (Proposed Order, pages 7-8)

III. COMMISSION ACTION REQUESTED

The Department requests that the Commission issue a Final Order upholding the Administrative Law Judge's Proposed Order.

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[1] No person shall violate the conditions of any waste discharge permit issued under ORS 468B.050.

[2] OAR 340-044-0015(3) No person shall cause or allow Class V injection systems injecting sanitary waste, sewage, or industrial or commercial waste into sewage drain holes or sewage drill holes, except as allowed under OAR 340-044-0015(3)(b), 340-044-0017, or 340-044-0018(3).
(b) After January 1, 1983, use of existing sewage drain holes or sewage drill holes is prohibited unless municipal sanitary sewer service is not available to the property. Except for single family residences, use of an existing sewage drain hole must be authorized by a permit.
(B) Within 90 days after sanitary sewer service is available to a property, the owner of that property shall make connection to the sewer and shall abandon and decommission the sewage drain hole in accordance with OAR 340-044-0040. On a case-by-case basis, the Director may waive the requirement to connect to sewer if the Director determines that connection to the sewer is impracticable or unreasonably burdensome.

[3] OAR 340-071-0130(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] "If any waste disposal well covered by this permit fails and is unable to dispose or drain the amount of sewage discharged to it, the permittee shall contact the Department within 24 hours." (Permit Schedule D, Condition 6)

IV. APPLICABLE LAW AND POLICY

If the Commission modifies the ALJ's Proposed Order or the findings of fact within in any substantial manner,[5] the Commission must identify the modifications and provide an explanation as to why it made those modifications. (OAR 137-003-0665(3)) Additionally, the Commission may only modify a finding of historical fact made by the administrative law judge if the Commission determines that the finding made by the ALJ is not supported by a preponderance of the evidence in the record. (OAR 137-003-0665(4))

V. DISCUSSION

A. Violations at issue and supporting findings of fact (FOF)

ALJ Han found that the Morsmans were liable for Violations 1, 2 and 4, but not liable for Violation 3, based on the evidence in the record. Therefore, only Violations 1, 2 and 4 are at issue in this appeal to the Commission.

1. Violation 1: Failing to decommission the waste disposal well and connect to the City sewer system.

ALJ Han found that the Department proved by a preponderance of the evidence that Respondents failed to decommission the waste disposal well on their property and failed to connect to the City of Madras sewer system. (Proposed Order, Conclusion of Law 1) DEQ first made the Morsmans aware of the fact that they would have to connect to municipal sewer in 1997 when Jefferson County and DEQ representatives met with Mr. Morsman regarding connection of a mobile home to the park's waste disposal well. ALJ Han notes, "The DEQ allowed the connection on the condition that the Morsmans sign a written agreement with the City of Madras to connect to the City's swage service when it became available." (Proposed Order, FOF 4, pg.3) Subsequently, the Department sent several letters and issued two permits to the Morsmans notifying them that their Water Pollution Control Facilities Permit (the Permit) was an interim permit only and that they would have to connect to the City's sewer system. At

[5] ORS 137-003-0665(3): "...any agency modifies proposed order in a "substantial manner" when the effect of the modifications is to change the outcome or the basis for the order or to change a finding of fact."

no time did the Morsmans respond to these letters or object to any of the conditions of the permits they applied for. (Proposed Order, FOF 6, 7, 8, 12) The Morsmans were again notified in person that they were required to connect to City sewer at a meeting with City, County and DEQ representatives on October 25, 2006. At this meeting, the Morsmans agreed to connect to City sewer and agreed to sign a Mutual Agreement and Order (MAO) to this effect in exchange for receiving a letter permit from the Department to drill into their waste disposal well. The Morsmans never signed a MAO and ultimately refused to decommission their well and connect to City sewer in violation of OAR 340-044-0015(3).

2. Violation 2: Discharges of sewage onto the ground surface.

ALJ Han found that the Department proved by a preponderance of the evidence that Respondents' waste disposal well discharged untreated or partially treated sewage onto the ground surface on June 18, October 18, October 23 and October 25, 2006. (Proposed Order, Conclusion of Law 2) Keith Bedell testified to his observations on June 18, 2006 of liquid pouring from the well-head, toilet paper and puddles that smelled of sewage and to his photos from that day. (Proposed Order, FOF 15) While the Morsmans claimed during the hearing that the ground was wet from their draining of their pool, ALJ Han did not find this explanation credible. The pool is 200 feet from the well-head and next to the road, so the puddles around the well-head would not be from pool drainage, which would have flowed to the road. (Proposed Order, FOF 16) Also, naturally, the pool water would not contain toilet paper and smell of sewage. (Proposed Order, Opinion, pg 12)

Rich Black testified to his observations on October 17, 2006 of sewage discharging and flowing to the roadside ditch. He testified to observing toilet paper, suspended solids and smelling sewage. His photos portray lush, thick green grass below the well-head as well as algae in the ditch, as opposed to the dry, brown brush above the well, evidencing repeated discharge of nutrients from the well. (Proposed order, FOF 17) On October 18, 2006, Bob Baggett observed that sewage had discharged from the well in an amount sufficient to flow off the property, down to the roadside ditch, through a culvert and to accumulate on a highway embankment. (Proposed

Order, FOF 18) On October 23, 2006, Bob Baggett once again witnessed sewage flowing from the well-head, off the property and into the roadside ditch. (Proposed Order, FOF 20) On October 25, 2006, DEQ representatives, including Mr. Baggett, again observed sewage flowing from the well-head, off the property and into the roadside ditch and noted that the flow was greater than that on October 18, 2006. (Proposed Order, FOF 21)

3. Violation 4: Failing to report discharges of sewage to the Department within 24 hours

ALJ Han found that the Department proved by a preponderance of the evidence that Respondents failed to report the discharge of sewage from their waste disposal well within 24 hours on June 18, 2006. (Proposed Order, Conclusion of Law 4) In his Opinion, ALJ Han recognizes that the purpose of the condition of the Morsmans' Permit requiring them to report to DEQ any discharge within 24 hours is to allow the Department to determine the means by which a well will be fixed since these wells are supposed to be abandoned rather than repaired. The Morsmans did not report the well failure within 24 hours of the June 18, 2006 discharge and therefore they violated their Permit and ORS 468B.025(2). Regarding the October 18, 2006 discharge, ALJ Han concluded that even though the Morsmans did not contact DEQ, they did not violate the Permit because the Department discovered the discharge and therefore the purpose of the condition was satisfied. (Proposed Order, Opinion, pg. 13-14)

B. Respondents' Main Arguments

The Morsmans do not dispute that they have not decommissioned their waste disposal well, that they have not connected to City sewer, that their well discharged sewage onto the ground surface, or that they did not contact the Department within 24 hours of these discharges. The Morsmans do not claim the violations did not occur – only that they have affirmative defenses which they contend excuse these violations. As the proponent of these affirmative defenses, Respondents carry the burden of presenting evidence to support their position.[6]

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[6] ORS 183.450(2) The proponent of a fact or position in a contested case has the burden of presenting evidence to support the fact or position.

Only Violations 1 and 2 will be discussed below, as Respondents did not take exception to ALJ Han's ruling on Violation 4 in their Exceptions and Brief.

1. ***Violation 1: Respondents contend that connection to municipal sewer is not "reasonably available" and that they have either been granted a waiver by the Department, or that the waiver provision of OAR 340-044-0015(3)(b)(B) exempts them from liability.***

    a. The Morsmans' claim that connection to municipal sewer is not reasonably available.

The Morsmans first argue that connection to the City of Madras sewer is not reasonably available to their property. In their Exceptions and Brief, they take exception to Judge Han's conclusion of law and state that "...the location of the city's sewer system was not indeed "available to the property," given the distance involved and the cost relative to the financial resources of the Morsmans..." (Exception no. 2, pg. 2) On its face, this argument fails because the term "reasonably available" is defined by rule. The Commission's rule states:

> (A) A sanitary sewer ***shall*** be deemed available to a property when,
> (i) A sanitary sewer is extended to within 300 feet from the property boundary for a single family dwelling or other establishment with a maximum design flow not more than 450 gallons per day, or 200 feet multiplied by the number of dwellings or dwelling equivalents for other establishments or greater flows.

The rule is clear on what constitutes reasonably available. It is not open to interpretation to include consideration of cost, finances or anything else in determining what is "reasonably available." The Morsmans do not dispute that not only is their property within 11,000 of the City sewer system (200 feet x 55 dwellings), but that it is only approximately 1,700 feet from the City sewer. There is no dispute that under the law, City sewer is "reasonably available" to the Morsmans' property. Judge Han further notes in the Proposed Order:

> The Morsmans have not complied with the DEQ's notice. They do not dispute that the city's sewer line is "reasonably available" at Lee Street, 1,230 feet from their trailer park. Indeed, under OAR 340-044-0015(3)(b)(A)(i), sewer service would have been "deemed available" to the Morsmans' trailer park when the

> city's sewer was 11,000 feet from the park (55 dwellings times 200 feet). Accordingly, the Morsmans' failure to connect to the city's sewer after they received the DEQ's notice violated the terms of the Permit. (Opinion pg. 10)

b. The Morsmans' claim that they have been granted a waiver.

Next, the Morsmans argue that DEQ has granted them a waiver by allowing them to operate the waste disposal well on a permit in the past. They argue that because they were not ordered to connect to City sewer at 11,000 feet away, that they already have a waiver from DEQ. This argument fails for many reasons. First, the record is clear that DEQ never granted the Morsmans a waiver. The Morsmans provide no evidence of a written waiver, a letter, notes from a meeting or anything at all that evidences DEQ granting them a waiver. Secondly, the first time the Morsmans have argued they thought they had a waiver was in their Exceptions and Brief to the Commission. Over the many years of letters, permit applications, inspections, meetings, informal discussions and even a hearing, they never argued that they should not have to connect to City sewer because they thought they had a waiver from the Department. Thirdly, the Morsmans requested a waiver from the DEQ Director on July 29, 2008, evidencing the fact that they knew they did not already have a waiver. The Director denied the waiver request.

Finally, DEQ's actions and interactions with the Morsmans since 1997 have made clear that they did not have a waiver from application of the rule and that one was not considered. Judge Han notes in his Findings of Fact that the Morsmans have known since 1997 that they would be required to connect to City sewer and that any permit granted to them was temporary only. In Findings of Fact Nos. 4-8 and 12, Judge Han states:

> "In February 1997, Jefferson County and DEQ representatives met with Mr. Morsman regarding his application to connect a mobile home trailer to the trailer park's sewage system. The DEQ allowed the connection on the condition that the Morsmans sign a written agreement with the City of Madras to connect to the City of Madras's sewage service when it "became available.". . . By a letter dated April 26, 1999, the DEQ warned the Morsmans that their failure to apply for the permit violated its rules...The letter also stated that waste disposal wells are considered potential hazards and must eventually be eliminated. . . the DEQ issued permit No. 4400 (the Permit) in August 1999 with a cover letter that asked the Morsmans to 'read the permit carefully to become familiar with the terms and conditions to which [the Morsmans] must comply'. . . Schedule D, condition 5 of

> the Permit stated: 'Waste disposal wells are considered interim disposal systems and, upon availability of an area-wide sewerage facility, the waste disposal well or wells shall be abandoned'. . . The Morsmans did not object to any of the Permit's terms. The Morsmans applied to renew the Permit on November 23, 2001, and the DEQ renewed the Permit on the same terms as the original permit."

No Agency communication could reasonably have led the Morsmans to believe they had anything but a temporary permit and that they would be required to connect to City sewer.[7] Notably, the April 26, 1999 letter mentioned in the block paragraph above also stated: "...you may continue to use the well until such time in the future you propose to expand or change the use of the mobile home park ***or should the disposal well fail.***" Therefore, the Morsmans were on notice that once the well failed, if not sooner, they would then be required to decommission the well and connect to city sewer. Completely consistent with this letter, it was in October 2006 that DEQ met with the Morsmans and discussed the necessity of connecting to the City of Madras sewer. Further, the Morsmans had opportunity when reviewing their temporary Permit to object to the terms or notify DEQ that they thought they had a waiver from the Permit condition to connect to municipal sewer. At no point did the Morsmans express a belief that they had a waiver from the rule. Judge Han further notes in Findings of Fact Nos. 22-24 and 27:

> "On October 25, 2006, representatives of the DEQ and the City of Madras met with the Morsmans regarding the failure of the Morsmans' sewage system. . . city representatives told the Morsmans that the city was in the process of bringing its main sewage line across the highway toward the Morsmans' trailer park and the line would reach Lee Street, a quarter-mile from the park, by July 2007. The DEQ told the Morsmans that an alternative to their disposal well had thus become reasonably available and that they must decommission the park's well and connect to the city's sewer line when it reached Lee Street. The DEQ, city representatives, and the Morsmans discussed the hook-up costs extensively and the Morsmans had enough information to understand the approximate cost to hook-up to the city sewer line. The Morsmans agreed to decommission the park's well, connect to the city's sewer, and sign a Mutual Agreement and Order (MAO) confirming the agreement. . . Based on the Morsmans' agreement to connect to the city sewer as soon as it reached Lee Street and to enter into the MAO, on October 26, 2006, the DEQ issued a letter permit to the Morsmans allowing them

[7] Likewise, Judge Han did not "uphold" any sort of sudden and arbitrary change in the Department's position as the Morsmans claim in the Exceptions and Brief, Exception 10. To the contrary, it is clear that DEQ has made the same assertion of the same requirement over and over again – that the Morsmans' permit was temporary and that they would have to connect to municipal sewer. Judge Han made no finding of fact regarding a change in position and therefore, he made no such ruling upholding one either.

> to hire a well driller to clear out any obstructions in the well. The letter permit referred to the Morsmans' "verbal agreement" at the October 25, 2006, meeting to "enter into a Mutual Agreement and Order requiring connection to City sewer." The Morsmans did not object to or otherwise respond to the statements in the letter permit."

It is completely unreasonable to interpret the DEQ's meeting, the attempted MAO, or the letter permit as any sort of "waiver" from the rule to decommission and connect to City sewer. It is more than clear that the Morsmans understood this to be DEQ's position as evidenced by their agreement to connect to city sewer.[8] This last minute attempt in their Exceptions and Brief to claim that they thought they had a waiver and therefore should be exempt from the rules is not credible and not supported by the evidence.

The Morsmans also allege in their Exception and Brief that DEQ has a "past practice" of looking at "the facts and the waiver portion of the rule, it being clear that to look only at the '200 feet x units' would cross the line to 'impracticable or unreasonably burdensome' and create a lot of hardship and homelessness in situations like this." (Discussion, pg. 11) Since the Department has never considered a waiver request before the Morsmans' request, the Department has no "past practice" with the waiver provision and has never interpreted the "reasonably available" definition to be anything other than the definition that is given – in this case, 200 feet x the number of units. The Morsmans' argument lacks any supporting evidence at all of past cases where the Department has executed this "past practice." Further, Judge Han notes in his Finding No. 27 that the Department did not require connection to municipal sewer when they first spoke with the Morsmans in 1997, because at that time it was unclear whether the City's existing sewer lines had the capacity to receive the Morsmans' sewage – an additional 55-60 households connected to the system. (Finding No. 27, pg. 6)

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[8] In their Exceptions and Brief, the Morsmans claim in Exception 6 that "Judge Han's finding No. 24 that the Morsmans agreed to connect to connect to the city sewer as soon as it reached Lee Street citing exhibit A-25" is false. The go on to say that the Morsmans did not agree to connect at Lee Street and that there is no mention of Lee Street in exhibit A-25. What the Morsmans fail to mention in their Brief is that Judge Han also cited the testimony of Bob Baggett in making that Finding and Mr. Baggett testified, along with Eric Nigg, that they had agreed to connect at Lee Street – this was in fact the only point of connection discussed at the October 25, 2006 meeting. Judge Han's finding No. 24 further points out that Mr. Morsman testified that "the Morsmans did not object to or otherwise respond to the statements in the letter permit" – i.e. claim that they were contrary in any way to what they had agreed upon at the meeting. The agreement is also evidenced in Respondent's Exhibit R54.

At page 11 of their Brief, the Morsmans go on to state what they consider the Department's position to have been – "that the Morsmans would have to connect to the sewer only when the cost to do so was financially 'practicable.'" Again, this is not credible because the evidence on the record shows that every single communication with the Morsmans, whether in writing or in person, notified them that the permit was temporary, that they would have to decommission their well and connect to city sewer, and at no time did any of these communications include the notion that they had a waiver. The Morsmans suggest that the fact that the Department worked with them for years before resorting to formal enforcement exempts them from liability under the law.[9] This argument is illogical and unsupported by the evidence.

c. The Morsmans' claim that they are exempt from liability under OAR 340-044-0015(3)(B)(b).

The Morsmans' final exception to the Order requiring them to decommission their waste disposal well and connect to City sewer is that the waiver provision of OAR 340-044-0015(3)(b)(B) exempts them from liability. It states:

> (b) After January 1, 1983, use of existing sewage drain holes or sewage drill holes is prohibited unless municipal sanitary sewer service is not available to the property. Except for single family residences, use of an existing sewage drain hole must be authorized by a permit.
> (B) Within 90 days after sanitary sewer service is available to a property, the owner of that property shall make connection to the sewer and shall abandon and decommission the sewage drain hole in accordance with OAR 340-044-0040. On a case-by-case basis, the Director may waive the requirement to connect to sewer if the Director determines that connection to the sewer is impracticable or unreasonably burdensome.

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[9] The Morsmans suggest in their Exceptions and Brief that a letter from Joni Hammond evidences a change in the Department' definition for "reasonably available." (Exhibit R54) Ms. Hammond merely points out the fact that the rule defines connection to be reasonably available in the Morsmans' case at 11,000 feet, while the Department allowed them to wait until the City was finished bringing the sewer line up to only 1,700 feet away since that construction was in progress and happening within a few months. The point of the letter, and what is stated in the letter, is that the 1,700 foot mark was ***agreed upon*** at the meeting by DEQ, the City, the County ***and the Morsmans*** to be the point at which they would connect to City sewer. The meeting was held due to several instances of failure of the well that resulted in discharging significant amounts of sewage onto the ground surface. Despite the agreement that the Department and the Morsmans came to, the Morsmans later refused to sign a Mutual Agreement and Order requiring them to connect to City sewer, and that in turn brought about this enforcement action.

As Judge Han noted in his Opinion, this argument is untimely, as the Morsmans had not made a request for a waiver at the time of the hearing, and because the decision is not Judge Han's to make – the waiver may only be granted by the Director of DEQ.[10] The Morsmans have since made a request to the DEQ Director, which the Director denied. The Morsmans have asked for a contested case hearing on the denial of their waiver request and a contested case hearing will be held on the matter. Therefore, a consideration of the waiver provision as a defense to the requirement that the Morsmans connect to city sewer is untimely and inappropriate in this appeal.[11]

However, because the Morsmans have made it an issue in their Exceptions and Brief, the Department will address why the evidence does not merit a waiver even if one could have been granted by the ALJ. The Morsmans did not present any evidence that connecting to City of Madras sewer is impracticable and they failed to make a credible case that the burden on them is unreasonable or that it outweighs the public health and environmental benefits from decommissioning the well.[12] Judge Han found that the Morsmans provided inadequate evidence to support their affirmative defense that the requirement that they connect to city sewer as required by law is "impracticable" or "unreasonably burdensome." (Proposed Order, Opinion, pgs. 10-11) ALJ Han noted that the Morsmans themselves provided evidence that connection to City sewer is in fact "practicable" using the Webster's common dictionary definition of the term "impracticable."[13] He notes in his Opinion that the Morsmans presented two tentative bids from contractors showing that construction is possible and that they are willing and able to do the

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[10] In the Proposed Order, Judge Han states: "The Morsmans did not request a waiver from the DEQ until the day of the hearing of this contested case. The rule provides that the waiver is within the discretion of the DEQ's director. The director has not ruled on the Morsmans' waiver request and it would be premature for me to do so now." (Opinion, pg. 11)

[11] Note that while there is a precondition, impracticability or unreasonable burden, the issue of whether to grant a waiver remains discretionary with the Director. Thus, even if the Director concludes that the requirement is unreasonably burdensome, the Director could still decline to grant the waiver if he feels that the underlying requirement is needed to protect public health and the environment.

[12] However, weighing the burden of connection versus the environmental impact should be left to the Director's discretion.

[13] "Webster's Third New International Dictionary, Unabridged, defines "impracticable" as "incapable of being performed or accomplished by the means employed or at command."

work of connection to City sewer from the Morsmans' property.[14] Further, an estimate from Tye Engineering & Surveying, Inc. stated that the proposed sewer line is within the existing public right of way allowing the construction without the need for easements.[15] It is clear that the means exist to construct connection to the City of Madras sewer system.

Regarding the argument that connection to City sewer is unreasonably burdensome, Judge Han also found that based on the evidence presented,[16] the Morsmans did not meet their burden of proof in showing that connection was an unreasonable burden.[17] He bases his Opinion on three factors. First, the Morsmans presented no evidence that the costs of connection were unreasonably burdensome. He notes that they provided two estimates of construction costs that were extremely tentative and unreliable. The estimates were not based on engineered plans, but only on phone conversations with Mr. Morsman. He also notes that the Morsmans provided the contractors with insufficient details on which to base accurate estimates. The Morsmans claim in their Exceptions and Brief that the City refused to provide cost data upon request. (Exception No. 5) This statement is completely false, as Mike Morgan of the City of Madras provided to the Morsmans attorney estimates that were available in a letter dated April 1, 2008.[18]

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[14] Respondent's Exhibits 30 and 32.

[15] Respondent's Exhibit 31.

[16] In Exception 1, the Morsmans take issue with Judge Han's evidentiary ruling excluding the testimonies of Maura Schwartz and Darlene Pullman. Their testimony would have been related to hardship to the tenants and correctly, Judge Han found that this testimony was irrelevant to the issue of whether the Morsmans were liable for the four violations and whether the Order requiring them to connect to City sewer should be upheld. While the Department understands that tenants may be concerned about the status of the park, hardship to them is not legally relevant in consideration of the issues in this case.

[17] It should be noted that Respondent's claim that no contrary evidence was presented regarding whether connection is an unreasonable burden. (Exception 13, pg. 4-5) However, the burden of proof is the Morsmans' and therefore the Department need not present evidence to disprove their affirmative defense. The standard of "a preponderance of the evidence" is not a test of which party presents more evidence, the standard is solely whether the Morsmans have met the burden by a preponderance. Judge Han found that they did not.

[18] In their Exception No. 5, the Morsmans cite exhibit R58, an email from Mike Morgan to Bob Baggett, as evidence. The City was concerned about using City resources to provide construction costs and engineering costs to individual citizens of Madras. This responsibility is on the owner of the property wishing to connect, as they ultimately choose the contractor and engineer for the job. The Morsmans fail to mention in their Exception that this was a liability issue for the City and that they did provide what costs they could in the April 1, 2008 letter to Mr. Sheehan. Further, cost was discussed at the October 25, 2006 meeting, contrary to the Morsmans' statement in Exception No. 5.

Second, Judge Han notes that the Morsmans provided insufficient evidence regarding their financial circumstances in that they provided no documentation of their assets, income or expenses.[19]

Finally, Judge Han notes that the Morsmans have had ample time to prepare for the cost to connect to municipal sewer. They have been informed repeatedly since 1997 that their permit was temporary and that they would have to connect to City sewer. Judge Han further notes that despite this knowledge, they failed to explain why they did not prepare for this expense and instead, in April 2006, refinanced their mortgage paying a prepayment penalty of $37,000, receiving cash-out of nearly $115,000 and substantially increasing their mortgage debt. He states: "By this, the Morsmans made it more difficult for them to qualify for a loan with which to pay for the sewer connection." The legal requirement to connect to municipal sewer when it became available is a business expense which the Morsmans were aware of in order to run their business in accordance with the law. Given the failure to show that the connection costs were accurate or unreasonable, the failure to show evidence of their finances, and their choice to forego preparation for an expense they knew would come to fruition, the Morsmans have failed to show that connection to municipal sewer is "unreasonably burdensome."

Beyond the lack of evidence presented to meet their burden by a preponderance of the evidence, the Morsmans fail to take into account the environmental threat as weighed against the burden of connecting to City sewer. Indeed, the Morsmans make light of the Department's and Commission's concern regarding the potential contamination of groundwater that disposal wells of this sort pose. They claim that because there has been not yet been documentation of contamination of the drinking water wells in Madras that there should be no concern about their disposal well. Judge Han did not find this argument persuasive.

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[19] Note that in Exception 13, the Morsmans ask the Commission to take "administrative notice" of the exhibits they provided to the Director in their request for a waiver. This is improper. The record on this appeal is closed as of October 21, 2008 and any additional exhibits are unacceptable before the Commission. The exhibits regarding the waiver request are for that request to the Director only and were not considered by ALJ Han in his decision. (Exceptions and Brief, pg. 4-5)

In his Opinion, Judge Han states: "The Environmental Quality Commission made the policy decision to phase out disposal wells when alternative waste disposal systems become reasonably available. OAR 340-044-0010. The applicable rules do not require a showing of actual harm before the DEQ can require the well to be decommissioned. If an alternative disposal system has become reasonably available, it is no defense that the well has not failed since October 2006 and that the well has not actually contaminated groundwater. *See City of Klamath Falls v. Environmental Quality Commission*, 318 Or 532 (1994)." (Opinion, pg. 11-12)

Oregon law prohibits the new construction, maintenance, or use of waste disposal wells where any other means of sewage disposal is available.[20] Recognizing the potential economic hardship of an immediate ban on waste disposal wells, when the EQC adopted the rules in 1983, they actually made the requirement that the existing wells be immediately decommissioned less burdensome by adopting rules requiring connection to municipal sewer when it became "reasonably available" by definition. Since 1969, approximately 95% of the waste disposal wells in Oregon have been decommissioned. The threat to human health and the environment that disposal wells such as the Morsmans' well poses is an unreasonable risk in light of the option to connect to city sewer at only 1,700 feet from the property.

In addition to the threat that all waste disposal wells of this type pose to the environment and public health, the Morsmans' well poses a particular and greater threat. In the past, Mr. Morsman had informed the Department that the well depth was approximately 250 feet. The Morsmans claimed that there were still obstructions in the well after they pulled out the green sweatshirt on October 18, 2006, so the Department, in exchange for their agreement to connect to the City sewer system at the meeting on October 25, 2006, gave the Morsmans a letter permit authorizing drilling into the well to clean out any further obstructions. The Morsmans claim in Exception 4 that the well was not drilled any deeper than it already was. However, Mr. Baggett was present at the well-head as it was being drilled and he testified that at approximately 260

[20] OAR 340-044-0012(2) Permits shall not be issued for construction, maintenance or use of an underground injection system where any other treatment or disposal method that affords better protection of public health or water resources is reasonably available or possible.

feet, the driller felt an obstruction give way and the drill then reached the well's bottom at 326 feet. Therefore, the well was deeper than anyone knew before the drilling and likely it was made deeper because no additional obstructions were brought up after sending a baler down the drill hole twice. (Judge Han's Finding 25) Regardless of when the actual well depth became apparent, the well is now known to be 326 feet deep, which is only 173 feet from the water table of City of Madras Well #2 and 101 feet from City of Madras Well #3, laterally. As Judge Han noted in Finding No. 26, it is known that DEQ does not allow wells to be drilled deeper than 100 feet and the Morsmans' well exceeds this by more than three times.[21] Because of these factors, the Morsmans' drain hole poses an even greater risk to public health and the environment compared to other wells of this type which are considered an environmental threat at even 100 feet.

2. ***Violation 2: Respondents claim that they are not liable for the October 2006 discharges because they contend that their well was "sabotaged" and that this caused the discharges.***

ALJ Han upheld all four violations of sewage discharge alleged by the Department to have occurred on June 18, October 18, October 23 and October 25, 2006. Respondents did not take exception to ALJ Han's ruling on the June 18, 2006 discharge in their Exceptions and Brief. They discuss the alleged sabotage of the well as the reason for the October discharges only. Therefore, only the October 2006 discharges will be discussed in this Answering Brief.

The Morsmans argue that they are not liable for the sewage discharges because their well was sabotaged in October 2006. In Exception 7, the Morsmans claim that a wig and plastic bags were pulled out of the well on October 26, 2006. In fact, Mr. Baggett was present that day when the well was being drilled into, and he testified that nothing – not a wig or plastic bags or anything else – was brought up despite a baler dropping down into the well twice to find

[21] In their Exception 8, the Morsmans argue that OAR 340-044-0017(2) on "Repairs to Existing Sewage Drain Holes or Sewage Drill Holes" only requires that in "repairing" a drywell "deepening the sewage drain hole shall be limited to a maximum depth of 100 feet." They claim that there was no deepening, but only a "cleaning" of the well shaft based on the letter permit issued by Mr. Nigg. This requirement shows that the Department expects drill holes to be at a maximum depth of 100 feet. Regardless of whether there was a cleaning, drilling or deepening, the Morsmans' well is now at 326 feet – well beyond the Department's stated limit.

obstructions.[22] The Morsmans did not meet their burden of proof, a preponderance of the evidence, in showing that the drain hole was in fact sabotaged or, if it was, that this is what caused the discharges. The Morsmans claim that a green sweatshirt was pulled from the well as well as a wig and some other items. There are no pictures putting a green sweatshirt, a wig or anything else at the well site and there is no report – police or other – that corroborate the alleged sabotage.

Even if the sabotage did occur at the time of the October 2006 discharges, whether or not the Morsmans intended to discharge sewage to the ground surface is irrelevant under the law. A property owner and permittee that allows sewage to be discharged to the ground surface for any reason is in violation of their permit and of OAR 340-071-0130(3).[23] Mental state is only a factor in determining the civil penalty assessed in connection with the violation. The sabotage, even if it were relevant, is not a defense to the June 2006 failure of the well and it does not exempt the Morsmans from liability for the several and continued failures in October 2006.

The Morsmans take exception to Judge Han's finding nos. 19, 20 and 22 that their well "failed" on the occasions alleged in the Notice.[24] They apparently claim that the well did not "fail" because the well allegedly became "fully operable" after October 26, 2006. The Oregon Administrative Rules state that a "failing system" means any system that discharges untreated or incompletely treated sewage or septic tank effluent directly or indirectly onto the ground surface or into public waters or that creates a public health hazard.[25] The well did discharge sewage onto the ground surface, regardless of the reason,[26] and therefore "failed" by definition. Judge Han's finding was proper.

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[22] Judge Han made Finding of Fact No. 25 that on October 26, 2006, the baler retrieved no items that would have obstructed the well.

[23] OAR 340-071-0130(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.

[24] In their Exceptions and Brief, Exception 3 states: "Judge Han's finding that the Morsmans' drywell had "failed" in findings Nos. 19, 20 and 22, when the well had simply been sabotaged by the stuffing of materials down the well which, when removed, left the well and the rest of the system in fully operable condition."

[25] OAR 340-071-0100(66)

[26] The alleged sabotage will be discussed later in this section.

VI. CONCLUSION

The Department has proven by a preponderance of the evidence that the violations at issue in this appeal – Violations 1, 2 and 4 – occurred and that the Department Order and civil penalty assessment are appropriate. Judge Han found that the Morsmans' affirmative defenses lacked credibility, were unsupported by the evidence and/or were irrelevant.

For the reasons stated above, DEQ asks the Commission to uphold ALJ Han's Proposed Order in its entirety, including the conclusions that Mr. and Mrs. Morsman committed violation nos. 1, 2 and 4, that they are liable for the Department Order to decommission their waste disposal well and connect to City sewer and that they are liable for the $192,842 civil penalty as calculated in the Proposed Order.

_____ _____

Date Leah Koss, Environmental Law Specialist

CERTIFICATE OF SERVICE

I hereby certify that I served the Answering Brief Memorandum within on the 13th day of February, 2009 by PERSONAL SERVICE upon

The Oregon Environmental Quality Commission
c/o Stephanie Clark, Assistant to the Commission
811 SW Sixth Avenue
Portland, OR 97204

and by electronic mail and USPS mail upon

Michael Sheehan
Attorney at Law
33126 SW Callahan Rd
Scappoose, OR 97056

by ELECTRONIC MAIL and by mailing a true copy of the above by placing it in a sealed envelope, with postage prepaid at the U.S. Post Office in Portland, Oregon, on February 13, 2009.

I HEREBY CERTIFY THAT THE FOREGOING IS A COMPLETE AND EXACT COPY OF THE ORIGINAL THEREOF.
Attorney for Morsmans

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION

OF THE STATE OF OREGON

IN THE MATTER OF:	DEQ Case No. WQ/D-ER-07-186
PHILLIP and BRIGITTE MORSMAN, doing business as TOPS TRAILER PARK, Petitioners	OAH Case No.: 800409
	PETITIONER'S BRIEF AND EXCEPTIONS TO THE RULINGS AND PROPOSED ORDER OF HEARING OFFICER

Petitioner, Phillip and Brigitte Morsman, dba Tops Trailer Park ("Morsmans"), hereby excepts from the rulings of Administrative Law Judge James Han ("Judge Han") and to his Second Corrected Proposed and Final Order as detailed below and for the reasons stated below.

I. EXCEPTIONS

The Morsmans except to:

1. Judge Han's evidentiary rulings excluding the testimony of Maura Schwartz and Darlene Pullman. Maura Schwartz would have presented expert testimony on the hardship to the roughly 55-60 low income families resident in the park were the park to be forced to close given the lack of availability of alternative housing for them in the area. Mrs. Darlene Pullman is senior citizen resident of the park who would also have testified as to hardship. Judge Han held that the impacts and

Michael P. Sheehan
Attorney at Law
33126 Callahan Road
Scappoose, Oregon 97056
503-543-7172 Fax 503-543-7172

hardships on the 55 low income families resident in the park were the park to be forced to close were not relevant.[1]

2. Judge Han's conclusion of law No.1 that the Morsmans violated Schedule D, Condition 5 of the Permit, ORS 468B.025(2), and OAR 340-044-0015(3)(b) by failing to decommission the waste disposal well and failing to connect to the City of Madras's sewer system since November 7, 2007, for the reason that since the location of the city's sewer system was not indeed "available to the property," given the distance involved and the cost relative to the financial resources of the Morsmans, as presented in exhibits R-30 through R-36 and the testimony of the Morsmans as to their income and resources.

3. Judge Han's finding that the Morsman's drywell had "failed" in findings Nos. 19, 20 and 22, when the well had simply been sabotaged by the stuffing of materials down the well which, when removed, left the well and the rest of the system in fully operable condition.

4. Judge Han's failure to find that when the DEQ finally allowed the well shaft to be cleaned on October 26, 2006 that the cleaner cleared the well shaft to its "original depth of 327 feet," i.e. that the well shaft was *not* drilled deeper by the clearing operation.

5. Judge Han's finding No. 22 that at the meeting of October 25, 2006 that the City

[1] It should also be noted that on the request of DEQ Judge Han closed the hearing to the residents of the park, the public, and the press.

Michael F. Sheehan
Attorney at Law
33126 Callahan Road
Scappoose, Oregon 97056
503-543-7172 Fax 503-543-7172

and DEQ provided the Morsmans with enough information for them to know the "approximate cost" to hook up to the City's sewer line when it reached Lee Street. No such information was provided at that meeting. Madras' city manager refused to provided estimates of the cost of construction then or thereafter notwithstanding repeated requests by the Morsmans. See exhibit R-58.

6. Judge Han's finding No. 24 that the Morsmans agreed to connect to the city sewer as soon as it reached Lee Street citing exhibit A-25. The Morsmans did not agree to connect to the city sewer as far away as Lee Street, and there is no mention of Lee Street in exhibit A-25.

7. Judge Han's finding No. 25 that at the time of the cleaning of the well shaft "the baler found no materials that could have obstructed the well" is contradicted by the affidavits of Middleton and Peck that on October 26th the cleaner found and removed materials blocking the shaft including "plastic bags, what appeared to be a wig, and some other sludge." R-21 (Affidavit of Middleton) and R-24 (Affidavit of Thomas Peck).

8. Judge Han's finding No. 26 stating that "the DEQ's rules provide that drain holes, such as the Morsmans' well, may be no deeper than 100 feet." No cite to a rule is provided. OAR 340-044-0017(2) on "Repairs of Existing Sewage Drain Holes or Sewage Drill Holes" only requires that in "repairing" a drywell "deepening the sewage drain shall be limited to a maximum depth of 100 feet." Here there was no

Michael F. Sheehan
Attorney at Law
33126 Callahan Road
Scappoose, Oregon 97056
503-543-7172 Fax 503-543-7172

deepening, only a "cleaning" of the well shaft as authorized by the permit issued by Mr. Nigg on October 26, 2006. (Exhibit R-53, ¶3).

9. Judge Han's assertion at page 10 paragraph 3 that "the (Morsmans) do not dispute that the city's sewer line is reasonably available at Lee Street . . ." is incorrect in that the Morsmans do dispute that the sewer is "reasonably available" at Lee Street.

10. Judge Han's upholding a sudden and arbitrary change in DEQ staff's interpretation of OAR 340-044-0015(3)(b)(A)(i) and the waiver provision of OAR 340-044-0015(3)(b)(B).

11. Judge Han's decision at page 11 in refusing to determine that a request for a waiver was justified on the merits by a preponderance of the evidence.

12. Judge Han's assertion at page 11 paragraph 3 that the "Morsmans did not present persuasive evidence that the costs of connecting to the city's sewer were unreasonably burdensome. First, the Morsmans did not establish a reliable estimate of the connection's costs. The Morsmans' cost estimates where extremely tentative. They were not based on engineered plans . . ." when the Morsmans presented written cost estimates from three engineering firms (R-30, R-31, and R-32).

13. Judge Han's determination that "the Morsmans presented insufficient evidence regarding their financial circumstances." The Morsmans both testified as to their

Michael F. Sheehan
Attorney at Law
33126 Callahan Road
Scappoose, Oregon 97056
503-543-7172 Fax 503-543-7172

financial circumstances. There was no contradictory evidence offered as to their incomes and assets and the evidentiary standard–as noted by Judge Han–is the preponderance of the evidence. Moreover, the Morsmans did submit income tax returns and related documentation to the director in the separate request for a waiver which Judge Han referred to, the Morsmans request that the EQC take administrative notice of these documents.

14. Judge Han's assertion that Morsmans' claim of hardship was insufficient since they "orally inquired of only one bank," since the bank they inquired of was their own bank which rejected the request in writing (Exhibit R-36). Moreover, the loan request was only for $300,000 when the (later) estimates came in from the engineering companies showing costs in the $400,000 to $500,000 range. (R-30, R-31, and R-32).

II. DESIGNATION OF RECORD ON APPEAL

The Morsmans designate all exhibits admitted by Judge Han along with the DEQ's stipulation that a green sweatshirt had been offered into evidence but refused; the audio tapes of the contested case hearing conducted on July 25th and July 30th 2008; the offers of proof by the Morsmans of the testimony of Maura Schwartz and Darlene Pullman, and all pleadings and written submissions of the parties filed prior to Judge Han's Second Corrected Proposed and Final Order.

The Morsmans also request that the EQC take administrative notice of the waiver

Michael E. Sheehan
Attorney at Law
33126 Callahan Road
Scappoose, Oregon 97056
503-543-7172 Fax 503-543-7172

request filed by the Morsmans on July 29, 2008 with the Director along with his response, the request for reconsideration and the evidence filed with it on the financial condition of the Morsmans.

III. DISCUSSION

A. Background

The Morsmans are an older couple who have managed the TOPs Trailer park ("the park") since 1974 and then purchased the park in 1994 with a mortgage. The park has 55 to 60 units almost all of which are older singlewides occupied by low income families and senior citizens. Almost all of the residents of the park own their singlewides. (See DEQ exhibit A-9, attached).[2] The park itself has been in operation since the mid-1950s. The park is located on Highway 26 at the edge of the industrial district around the Madras airport north of the City of Madras. Neither TOPs nor most of the residential neighborhood just to the south of TOPs are in the City. (See DEQ Exhibits A-8 and A-11, attached).[3] DEQ exhibit A-8 (attached) shows the location of the Morsmans' septic tank (top "pin" on the map toward the top right of the page) and the location of the drywell (second "pin" down just below the first "pin"). DEQ Exhibit A-10 (attached) shows the

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[2] The park is the triangular piece of property with the singlewides including the brush area in the southern part of the triangle. Fourth Street borders the park on the right and on Fourth Street's right and parallel to it is Highway 26. The area to the upper left of the park on the other side of the road is industrial.

[3] TOPs is at the top center of the map. The neighborhood below TOPs is not in the city. Lee Street borders the south side of the neighborhood to the south of TOPS. Downtown Madras is at the bottom of the page.

Michael F. Sheehan
Attorney at Law
33126 Callahan Road
Scappoose, Oregon 97056
503-543-7172 Fax 503-543-7172

location of the City's well #2 on the far side of Highway 26, and A-11 shows the location of City well #3.

Due to the fact that impermeable hard rock strata are close to the surface many sewage disposal systems in the county area to the north of Madras were based on septic tanks and drywells. At TOPS the septic tank receives the flow of sewage from which the solids are separated and regularly hauled away while the remaining liquids are disposed of down a drywell. TOPs Trailer Park has been in operation since the mid-1950s and has operated with a septic tank and drywell system since that time. The Morsmans have a current DEQ permit for the operation of the system.

The sewage system in the park has operated over the years up to 2006 without any significant problems, though there was an incident of vandalism of several sewage cleanouts in 2004. (Exhibit R-27). The park has a variety of residents and sometimes they get angry at the Morsmans as managers or other residents and the result is some vandalism or sabotage. (Testimony of the Morsmans).

In October 2006 someone vandalized the park's drywell by breaking the cover off the well and stuffing various items down the shaft. Suspicion focused on a particular person but there was no direct evidence to tie him to the crime. Items eventually retrieved from the shaft included a green sweatshirt, several plastic bags, and something that looked like a wig. (Morsman testimony and exhibits R-21 (Affidavit of Middleton) and R-24 (Affidavit of Thomas Peck)). The result was that the flow from the septic tank to

Michael F. Sheehan
Attorney at Law
33126 Callahan Road
Scappoose, Oregon 97056
503-543-7172 Fax 503-543-7172

the drywell was interrupted and there was some spillage onto the ground (which in that area is grass and brush) and a small amount into a roadside ditch. (See exhibits R-10 and A-11).

The problem was discovered on October 17th, 2006. At this point the DEQ refused to allow the well shaft to be cleared of the items clogging it with the result that the Morsmans had to pay to have the septic tank pumped on a daily basis, which unfortunately produced some additional sewage spillage to the ground, and resulted in pumping and hauling charges of over $20,000 to the Morsmans for that one week, substantially depleting their financial reserves. (Exhibit R-22). On October 26th DEQ permitted the well shaft to be cleaned out which restored the well to full operation with no problems since. In order to hinder and deter any future vandalism the Morsmans have provided locked side and overhead fencing of the septic tank and drywell enclosures, plus lighting and cameras. (Testimony of Morsmans and Exhibit R-13).

B. Summary of Issues on Appeal

There are two central issues in this appeal. The first is whether the DEQ's determination that the City's sewer at Lee Street was "reasonably available" for the purposes of requiring the Morsmans to pay to build a full scale sewer from the northwest corner of the park to Lee Street, some 1,800 feet away through downward sloping and rocky ground regardless of the cost and their financial capabilities. The second is

Michael P. Sheehan
Attorney at Law
33126 Callahan Road
Scappoose, Oregon 97056
503-543-7172 Fax 503-543-7172

whether the Morsmans should be entitled to a hardship waiver pursuant to OAR 340-044-0015(3)(a)(B):

> On a case by case basis, the Director may waive the requirement to connect to sewer if the Director determines that connection to the sewer is impracticable or unreasonably burdensome.

C. First Appeal Issue: Failure to Connect and "Reasonable Availability" of the City Sewer at Lee Street Exceptions 2, 6, 9, 10.

1. The Holding

Judge Han held that,

The Environmental Quality Commission has declared that waste disposal wells in central Oregon are public health threats that should be phased out as quickly as possible. OAR 340-044-0010(2) provides in part:

> The injection of untreated or inadequately treated sewage or wastes to waste disposal wells and particularly to waste disposal wells in the lava terrain of Central Oregon constitutes a threat of serious, detrimental and irreversible pollution of valuable groundwater resources and a threat to public health. The policy of the Environmental Quality Commission is to restrict, regulate or prohibit the further construction and use of waste disposal wells in Oregon and to phase out completely the use of waste disposal wells as a means of disposing of untreated or inadequately treated sewage or wastes as rapidly as possible in an ordered and planned manner.

EQC rule OAR 340-044-0015(3)(b)(A) then goes on to say:

(A) A sanitary sewer shall be deemed available to a property when,

> (i) A sanitary sewer is extended to within 300 feet from the property boundary for a single family dwelling or other establishment with a maximum design flow not more than 450

Michael F. Sheehan
Attorney at Law
33126 Callahan Road
Scappoose, Oregon 97056
503-543-7172 Fax 503-543-7172

> gallons per day, or 200 feet multiplied by the number of dwellings or dwelling equivalents for other establishments or greater flows.

Judge Han also sets forth OAR 340-044-0015(3)(b)(B), which allows for a waiver of the connection requirement:

> (B) With 90 days after the sanitary sewer service is available to a property, the owner of that property shall make connection to the sewer and shall abandon and decommission the sewage drain hole in accordance with OAR 340-044-0040. **On a case–by–case basis, the Director may waive the requirement to connect to sewer if the Director determines that connection to the sewer is impracticable or unreasonably burdensome.** (Emphasis added).

2. DEQ's Recent Characterization of the Applicable Distance

DEQ's Eastern Region Administrator Joni Hammond has made it clear that her interpretation of the rule in this case is that "reasonably available" means 1/4 of a mile. See R-54, p.1. See also Hammond, R-54, p.2, ¶2:

> At the meeting "reasonably available" was defined as a location approximately 1/4 mile from the TOPS Trailer Park."

and again, Hammond, R-54, p.3:

> Based on the number of dwelling units at the park, these rules would require TOPS to extend a sewer line up to 2.5 miles, while we have defined a reasonable distance in this case as approximately 1/4 mile.

Under the "200 feet X the number of units" standard the Morsmans would have had to connect to the Madras sewer on the day the permit was issued in the mid-1990s, since downtown Madras had a sewer and is well within the 2.5 mile radius set forth by

Michael F. Sheehan
Attorney at Law
33126 Callahan Road
Scappoose, Oregon 97056
503-543-7172 Fax 503-543-7172

Director Hammond.

3. DEQ Past Practice

Yet the DEQ over the years has never strictly enforced the "200 feet X the number of units" part of the rule without looking at the facts and the waiver portion of the rule, it being clear that to look only at the "200 feet X units" would cross the line to "impracticable or unreasonably burdensome" and create a lot of hardship and homelessness in situations like this.

Implicitly there has never been a formal requirement for a formal process for a "Director's waiver" in this case. The DEQ has always taken the position that the Morsmans would have to connect to the sewer only when the cost to do so was financially "practicable." We know this because the DEQ knew when the permit was issued in the mid-1990s that a drywell was involved, they knew as well that downtown Madras had a functioning sewer system, and they knew that the City's sewer system was a little over one mile from the park. Given these circumstances the DEQ administration granted a waiver pursuant to OAR 340-044-0015(3)(b)(B) by looking at the facts and then issuing and renewing the permit at appropriate intervals. This approach was perfectly reasonable as opposed to forcing the applicant to formally apply for a waiver at every permit renewal point.

Then came 2006 and the vandalism/sabotage of the drywell occurred and the local DEQ administration took a much harder view, treating the Morsmans as if they were

Michael F. Sheehan
Attorney at Law
33126 Callahan Road
Scappoose, Oregon 97056
503-543-7172 Fax 503-543-7172

somehow personally responsible for the vandalism of the well[4], citing the EQC's general statement in OAR 340-044-0010(2) as proof that the Morsmans drywell was a threat to the health and groundwater resources of Madras; and from this that because the sewer was now at Lee Street they must connect to the city sewer or disconnect the drywell forcing the closure of the park.

The DEQ proposed an MAO specifying these requirements and insisted that it be signed exactly as written. Since it was financially impossible for them to do what the MAO as written would require, the Morsmans were in good faith unable to agree to those terms.

5. Well Operation and DEQ Concern About City Water Supplies Exceptions 3, 4, 7, and 8

It should also be recalled at this point that once the obstructions in the shaft, the sweatshirt, garbage bags and wig were cleaned out of the well the well worked fine and has worked fine ever since. (Morsmans testimony). The claim that the well had "failed"

[4] And it is also worth noting that while the DEQ's staff has taken the hardline position in this case that the owner of the system is fully responsible for any violation of the permit regardless of intent or negligence or any participation in the cause of the problem; while on the other hand, even in the proposed MAO there is a clear policy of forgiving "delay or deviation" from MAO terms due to "circumstances beyond the Morsmans' reasonable control" including "acts of nature, unforseen strikes, work stoppages, fires, explosion, riot, **sabotage**, or war." (Exhibit R-56, p.8, lines 6-8, emphasis added).

Michael F. Sheehan
Attorney at Law
33126 Callahan Road
Scappoose, Oregon 97056
503-543-7172 Fax 503-543-7172

was completely unfounded.[5] Cleaning the well shaft did not deepen the well at all. (Exhibit R-24). Moreover, the claim that the drywell posed a threat to the Madras water supply was empirically unsupported. There has been no evidence of any problem from 1954 when the system was constructed up to the time permits were required. In 2006 the nearest City water well was approximately one third of a mile on the other side of Highway 26 (see DEQ Exhibit A-10 attached). TOPs is at the far upper left of the picture and the yellow line across the highway leads from the TOPs drywell 1,682 feet to the City's well. Research on this well in the DHS Drinking Water Program records shows that there is no record of any sewage-related pollution of this well from the beginning of the available data in 2001 onward. (Exhibit R-43).

The City's next nearest well is well #3, which is over a mile away from the park. (See DEQ Exhibit A-11 attached). Again TOPS is at the very top of the page in the middle and follow the yellow line 5,315 feet to the bottom middle of the page. Here also there was no claim made that there was any impact on this well from the drywell at TOPs due to the sabotage in 2006 or otherwise. And lastly it should be noted that the City of Madras gets it water supply from Deshutes Valley Water from a source almost 20 miles from TOPs and does not use either of these wells for its drinking water supplies. (Testimony of Morsman and Morgan).

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[5] "Failure" logically means something more than temporary blockage. Were a car to block a street due to an accident the street has not "failed," simply remove the car.

Michael F. Sheehan
Attorney at Law
33126 Callahan Road
Scappoose, Oregon 97056
503-543-7172 Fax 503-543-7172

In sum, though the events of 2006 did involve some small amount of sewage flowing onto the ground in the sage brush area to the south of the drywell (See exhibits A-9 and R-11 attached), yet DEQ presented no evidence that the small amount of spill posed any significant threat to the Madras water supply.

Propelled by DEQ's new assertion that the 2.27 miles applied unless and until there was a formal waiver request, Judge Han relied exclusively on OAR 340-044-0015(3)(b)(A) to calculate the basic distance of 2+ miles and then determined that since the park is within that distance that's all there is to it; problems with hardship waivers and cost to connect are a matter for a director's formal decision after a formal waiver request.

> Indeed, under OAR 340-044-0015(3)(b)(A)(i), sewer service would have been 'deemed available' to the Morsmans' trailer park when the city's sewer was 11,000 feet from the park (55 dwellings times 200 feet). Accordingly, the Morsmans' failure to connect to the city's sewer after they received the DEQ's notice violated the terms of the permit. Order, p.10.

Yet were this to have been the approach adopted by DEQ, the Morsmans would never have gotten a permit to begin with, since from the start the park has been within this distance of the sewer system of Madras.

The problem is that this fails to recognize that DEQ has not–at least in the context of the Morsmans and to the extent that it could be determined in the cross examination of the DEQ witnesses with respect to others with non-industrial drywells–interpreted the rule this way (see the Hammond exhibits quoted above); in practice when the cost to connect would plainly be disproportionately costly an implicit waiver in the form of permit

Michael F. Sheehan
Attorney at Law
33126 Callahan Road
Scappoose, Oregon 97056
503-543-7172 Fax 503-543-7172

renewal was granted.

Here the DEQ implicitly granted the waiver when the city sewer was one block south of Lee Street, but refused it when the sewer moved north one block from Cedar Street to Lee. Yet there is no evidentiary support for this change in DEQ's approach. Where is the cost analysis showing the analytical dividing line that was crossed when the city advanced the sewer one block to Lee Street?

Judge Han responded to this question by holding that:

> The DEQ's interpretation of its waiver rule is both plausible and reasonably consistent with the rule's wording. I am required to defer to the DEQ's interpretation of its own rules. Order p.10.

The challenge here is that the DEQ's consistent past practice has indicated that it has not until this point interpreted this rule in this way at all, and that the statement of a need for a formal waiver was first articulated in this contested case proceeding. Under these circumstances Judge Han should have held that the DEQ needed to show a good and sound reason why the Morsmans "waiver" did not apply when the city sewer was at Lee Street when it did apply when the city sewer was one block away at Cedar Street. The DEQ simply pointing to a rule it had not before applied in isolation should not be enough to countenance this sort of arbitrary application of the rules.

Michael F. Sheehan
Attorney at Law
33126 Callahan Road
Scappoose, Oregon 97056
503-543-7172 Fax 503-543-7172

D. Second Appeal Issue: Failure to Determine that Morsmans' Request for a Waiver was Justified on the Merits by a Preponderance of the Evidence Exceptions: 1, 5, 11, 12, 13 and 14.

This brings us to the second major appeal issue: Did Judge Han err in his determination of whether "the connection to the sewer is impracticable or unreasonably burdensome" relative to its current location at Lee Street and the resources of the Morsmans.

OAR 340-044-0015(3)(b)(B) provides for a waiver when connection to a city sewer would be "impracticable or unreasonably burdensome."

> (B) . . . On a case-by-case basis, the Director may waive the requirement to connect to sewer if the Director determines that connection to the sewer is impracticable or unreasonably burdensome.

Judge Han determined that first that he could not rule on the waiver because a formal written waiver request had not been filed with and ruled on by the director. Having made this determination, he then set forth conclusions (p.11) with respect to the merits of the Morsmans' request.

Determinations of fact are based on a preponderance of the evidence. Given this standard, the evidence presented on this issue should have produced a determination that it would be "impracticable or unreasonably burdensome" for DEQ to require that the Morsmans build a sewer line through approximately 2,000 feet of rock to the City's sewer at Lee Street.

In this the following evidence is significant:

Michael F. Sheehan
Attorney at Law
33126 Callahan Road
Scappoose, Oregon 97056
503-543-7172 Fax 503-543-7172

1. The Morsmans have gotten cost estimates for the construction of such a line and these are in the $400,000+ range. (Exhibits R-30, R-31, R-32). This does not include regulatory approvals and system development charges (SDCs) from the City and County which would add somewhere around $30,000 to $35,000 to the bill. Moreover, there has been a long argument over whether the City would charge one hookup fee for connection to the sewer or 55 to 60 hookup fees.

2. The residents in TOPs are overwhelmingly low income. Revenue from the park is therefore limited. (Testimony of Morsmans). The Morsmans presented their income tax statements in their request for a waiver to the director. These statements show that their net income was less than $15,000 in 2006 and less than $20,000 in 2007. (Attachment 1). The Jefferson County Assessor's sheet issued in June 2008 for the TOPs property shows the real market value of the property as $606,233. (Attachment 2). These two attachments were exhibits to the request for reconsideration of the waiver filed with Director on October 16, 2008. We request that the EQC take administrative notice of these documents.

3. There is a $700,000+ mortgage already on the park. (Exhibit R-35, pp.1-3).

4. The Morsmans have asked their bank if it would be possible to get a $300,000 loan to build the sewer line. (This is before it became apparent

Michael P. Sheehan
Attorney at Law
33126 Callahan Road
Scappoose, Oregon 97056
503-543-7172 Fax 503-543-7172

that the estimated cost would be in the $430,000 range). The response from the bank, based on the revenues generated from the park and the existing mortgage–and certainly taking into account the current very touchy nature of mortgage lending–was to refuse to make any such loan. (Exhibit R-36).

5. Community Development Block Grant (CDBG) money had been solicited for the project some time ago but the application was in the end not sent in by the City because they could not make the showing that a majority of the families that would have access to the new sewer line would be low income. The problem was that though virtually all the families in TOPs are low income, the sewer line would have to be built through the neighborhood south of TOPs. This neighborhood, if you assume–as they did–that vacant lots would not be occupied by low income families, then meant that a low income majority was missed by a hair. Thus the City abandoned the effort to obtain CDBG funding. (Exhibit R-44).

6. The DEQ's position has been hard line: either the Morsmans build the sewer line or they shut down the septic system–effectively forcing a closure of the park and the loss of all or almost all the residents of their homes. (See Exhibit A-12, Notice of Violation, p.4 Department Order, ¶¶ 2 and 3a).

7. Had expert witness Maura Schwartz been allowed to testify she would have provided evidence that the majority of the park residents were low income,

Michael F. Sheehan
Attorney at Law
33126 Callahan Road
Scappoose, Oregon 97056
503-543-7172 Fax 503-543-7172

and there were virtually no low income manufactured home spaces available in the area where the residents of TOPs could move their homes were the park to close (even assuming that they could afford to move them and pay the connection charges elsewhere). Closure of the park would thus result in the loss of the residents' interest in their singlewides as well as the loss of the park as their home. She would also have testified that there were very limited housing opportunities for low income families in the Madras area.

8. Mrs. Darlene Pullman is a low income senior citizen resident of the park. Had she been allowed to testify she would have testified that closure of the park would cause her substantial hardship in terms of the lack of alternative locations for her manufactured home and the high costs of moving the home and reestablishing it elsewhere even if she could find a location.

9. Judge Han's decision that the only hardship or burden to be considered in determining whether the requirement to connect or close the park would be "unduly burdensome" was the burden to the Morsmans and not at all the 55 families and individuals who live in the park who might lose their homes and housing was unreasonable.

Judge Han on p.11, ¶2 provides a dictionary definition of "impracticable" as "incapable of being performed or accomplished by the means employed or at command."

Michael F. Sheehan
Attorney at Law
33126 Callahan Road
Scappoose, Oregon 97056
503-543-7172 Fax 503-543-7172

Concluding that "Morsmans presented no evidence that connecting to the city's sewer line would be impracticable in this sense." This assertion is contradicted by the Morsmans' showing that they did not possess the financial resources to fund a project at anywhere near this cost. The DEQ presented no evidence at all contradicting this showing. Thus clearly by a preponderance of the evidence Morsmans have shown that they do not have the "means" at their "command" to fund such a project.

Judge Han then characterizes the written cost estimates the Morsmans received from contractors as "extremely tentative." These estimates were presented in exhibits R-30, R-31, and R-32. They are all fairly specific as to cost, though as we all know final costs on construction projects often vary dramatically in the upward direction from initial bids. If anything, therefore, it should be assumed that these estimates would probably be on the low side. The city refused to provide any cost data after repeated requests. See Exhibit R-58. Based on the preponderance of the evidence these estimates should have been accepted.

Judge Han also claims (p.11, ¶5) that since the Morsmans knew in 1997 that they would be required at some point to hook up to the city sewer that they should have been saving up for that eventuality and since they didn't have the money now there was no unreasonable burden. The problem with this is that in 1997 there was no indication of the plans of the city to provide sewer extensions where and when or if. And there is no evidence at all that even if they had started saving in 1997–especially in light of the

Michael F. Sheehan
Attorney at Law
33126 Callahan Road
Scappoose, Oregon 97056
503-543-7172 Fax 503-543-7172

collapse of investment values and the economy–that they would have had the resources to fund a project of this sort now.

In sum, the Morsmans, as described above, and based on a clear preponderance of the evidence, do not have the financial capacity to build a sewer line through the hard rock all the way from Lee Street, across the intervening neighborhood, and up to the park's connection point at a cost of between $400,000 and $500,000. To order them to do this given this gross imbalance between their financial resources and the cost of construction would force the closure of the park, the financial ruin of the Morsmans and the loss of housing to 50-60 families. Construction of the sewer line under such circumstances is clearly "impracticable or unreasonably burdensome."

CONCLUSIONS

The city has moved and helped finance the sewer line from Cedar Street to Lee Street to serve the new hotel and associated development. The area to the north of TOPs in now in the city and the city in the future may well move the sewer further north from Lee Street closer to TOPs to serve development of lands below TOPs and north of Lee. Forcing the Morsmans to build the sewer all the way from Lee Street to their sewer connection point is clearly beyond their financial capability. Yet as the line comes closer, and if the economy recovers and unemployment doesn't decimate park residents' ability to pay, it will become more feasible to connect and the Morsmans are willing to work out a financially reasonable proposal, especially if the state could be convinced to assist with

Michael F. Sheehan
Attorney at Law
33126 Callahan Road
Scappoose, Oregon 97056
503-543-7172 Fax 503-543-7172

CDBG funding given the 55 units of low income housing which would be benefitted at TOPs.

Dated this 14th day of January, 2009.

Michael F. Sheehan, OSB #88126
Attorney for Respondents Phil and Brigitte Morsman

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Michael F. Sheehan
Attorney at Law
33126 Callahan Road
Scappoose, Oregon 97056
503-543-7172 Fax 503-543-7172

BEFORE THE OFFICE OF ADMINISTRATIVE HEARINGS
STATE OF OREGON
for the
THE ENVIRONMENTAL QUALITY COMMISSION

IN THE MATTER OF:	) **SECOND CORRECTED**[1]
	) **PROPOSED AND FINAL ORDER**
Phillip Dean Morsman and	)
Brigitte Renate Morsman,	) OAH Case No.: 800409
doing business as Tops Trailer Park,	) Agency Case No.: WQ/D-ER-07-186
	)
Respondents.	)
	)

HISTORY OF THE CASE

On December 19, 2007, the Department of Environmental Quality for the State of Oregon (DEQ) issued a Notice of Violation, Department Order and Civil Penalty Assessment (the Order). On January 8, 2008, respondents Phillip Dean Morsman and Brigitte Renate Morsman requested a hearing.

On February 26, 2008, the DEQ referred the hearing request to the Office of Administrative Hearings (OAH). Administrative Law Judge James W. Han was assigned to preside at the hearing. On April 24, 2008, the parties participated in a prehearing conference.

A hearing occurred on July 25 and 30, 2008, in Bend, Oregon. Environmental Law Specialist Leah Koss represented the DEQ. The following witnesses testified on behalf of the DEQ: Robert Baggett, a DEQ natural resources specialist; Keith Bedell, a supervisor in the City of Madras's wastewater department; Richard Black, a county engineer for Jefferson County; Grover Michael Morgan, the city administrator for the City of Madras; Leslie Carlough, a senior policy advisor for the DEQ; and Eric Nigg, DEQ's waste quality manager for Central Oregon. Respondents appeared with counsel Michael Sheehan and testified. The record remained open until September 5, 2008, for the parties to submit written closing arguments. The record closed on September 5, 2008.

ISSUES

1. Did respondents violate Schedule D, Condition 5 of Water Pollution Control Facilities General Permit No. 4400 (the Permit), ORS 468B.025(2), and OAR 340-044-0015(3)(b) by failing to decommission the waste disposal well at Tops Trailer Park and by failing to connect to the City of Madras's sewer system since October 2, 2007?

[1] This Second Corrected Proposed and Final Order corrects the penalty calculation in the original and the first corrected Proposed and Final Order. No other changes have been made to the original or first corrected orders.

2. Did respondents violate OAR 340-071-0130(3) by discharging untreated or partially treated wastewater or septic tank effluent directly or indirectly onto the ground surface on June 18, 2006, October 18, 2006, October 23, 2006, and October 25, 2006?

3. Did respondents violate Schedule D, Condition 7 of the Permit and OAR 340-044-0017(1) by pouring "caustic soda" into the waste disposal well without first obtaining a letter permit from the DEQ in June 2006?

4. Did respondents violate Schedule D, Condition 6 of the Permit and ORS 468B.025(2) by failing to report the waste disposal well failures to the DEQ within 24 hours on June 18, 2006, and October 18, 2006?

5. Are respondents subject to a civil penalty and, if so, did the DEQ assess the proper amount of the civil penalty?

EVIDENTIARY RULINGS

The following exhibits were received into the record without objection: A1 through A11, A13, and A15 through A32; R1 through R45, R50 through R54, R56, and R58. The DEQ's relevance objections to Exhibits R55 and R57 were sustained and the exhibits were not received into the record. Exhibit R46, a green sweatshirt, was not received into the record but the DEQ stipulated that respondents produced a green sweatshirt for the record.

In its closing brief, the DEQ argued that any exhibits respondents did not use "in proving their case should not be considered or given any weight in determining the outcome of the hearing." The DEQ's objection to considering respondent's exhibits is overruled. The DEQ had the opportunity to assert foundation and other objections at the time the exhibits were offered in evidence. It did not object and the exhibits were received into the record before the hearing closed.

The Administrative Law Judge sustained the DEQ's objection to the proposed testimonies of respondents' witnesses Maura Schwartz and Darlene Pullman on the ground that their testimonies were irrelevant to the issues for the hearing. Respondents' counsel made an offer of proof that Ms. Schwartz and Ms. Pullman would testify that if the Morsmans' trailer park closed because of the Morsmans' financial inability to comply with the DEQ's Order the park's low-income residents would be forced out of the park, lose their homes, and have no place to live.

FINDINGS OF FACT

1. Respondents Phillip and Brigitte Morsman managed and lived at Tops Trailer Park in Madras, Oregon, since 1974. They bought the trailer park in 1994 and have continued to live there. The park consists of 55 mobile home units. The park's tenants have low income but own the trailers in which they live. (Test. of Brigitte Morsman and Phillip Morsman.)

2. The trailer park's sewage disposal system takes sewage from the mobile homes through pipes into a 10,000 gallon septic tank where the solids settle and the liquid flows through pipes and discharges to a disposal well, also called a "dry well," "drill hole," or "drain hole." The DEQ classifies this type of system as an underground injection system and a Class 5 waste disposal well. (Test. of Baggett.)

3. Disposal wells such as the trailer park's do not treat the sewage and they increase the risk that sewage will reach ground water and contaminate drinking water. The Environmental Quality Commission decided in the 1970s to phase out disposal wells as soon as possible and issued rules to decommission such wells as soon as alternative sewage systems became reasonably available. (Test. of Nigg.)

4. In February 1997, Jefferson County and DEQ representatives met with Mr. Morsman regarding his application to connect a mobile home trailer to the trailer park's sewage system. The DEQ allowed the connection on the condition that the Morsmans sign a written agreement with the City of Madras to connect to the City of Madras's sewage service when it "became available." (Ex. A1.)

5. The DEQ also required the Morsmans to obtain a water pollution control facilities permit to continue operating the trailer park's sewage disposal system. The DEQ gave the Morsmans a permit application and 60 days to obtain the permit. (Ex. A1.)

6. The Morsmans did not sign a written agreement with the City of Madras, nor did they submit the permit application to the DEQ. (Test. of Baggett and ex. A2.) By a letter dated April 26, 1999 (ex. A2), the DEQ warned the Morsmans that their failure to apply for the permit violated its rules and that continued noncompliance would result in a formal enforcement action and civil penalties. The letter also stated that waste disposal wells are considered potential hazards and must eventually be eliminated. (Ex. A2.)

7. The Morsmans applied for the water pollution control facilities permit and the DEQ issued permit No. 4400 (the Permit) in August 1999 (ex. A3) with a cover letter that asked the Morsmans to "read the permit carefully to become familiar with the terms and conditions to which [the Morsmans] must comply." (Ex. A4.)

8. Schedule D, Condition 5 of the Permit stated: "Waste disposal wells are considered interim disposal systems and, upon the availability of an area-wide sewerage facility, the waste disposal well or wells shall be abandoned according to a plan submitted to and approved by the Department." (Ex. A3 at 4.)

9. Schedule D, Condition 6 of the Permit stated: "If any waste disposal well covered by this permit fails and is unable to dispose or drain the amount of sewage discharged to it, the permittee shall contact the Department within 24 hours." (Ex. A3 at 4.) The DEQ intended this condition to ensure that the Morsmans would contact the DEQ to determine the appropriate means of addressing a failing disposal well. (*Id.* at 12, para. 6.)

10. Schedule D, Condition 7 of the Permit stated: "No waste disposal well shall be repaired without a written letter permit from the Department." (Ex. A3 at 4.) Schedule D, Condition 8 of the Permit stated: "If a waste disposal well fails, the Department shall not issue a letter permit to allow a repair of the waste disposal well unless it finds that an alternative wastewater treatment or disposal facility to replace the waste disposal well is not feasible as determined by the Department." (*Id.*)

11. Schedule A, Limitation 2 of the Permit prohibited "hazardous materials" from being "discharged into the [waste disposal] system." (Ex. A3 at 2.) The DEQ considers caustic soda to be hazardous material because it is very corrosive and can enter ground water if placed into a waste disposal well. (Test. of Nigg.)

12. The Morsmans did not object to any of the Permit's terms. The Permit expired on December 31, 2001. The Morsmans applied to renew the Permit on November 23, 2001, and the DEQ renewed the Permit on the same terms as the original permit. (Test. of Baggett.)

13. In December 2004, Mr. Morsman noticed one of the trailer park's disposal well cleanout caps was broken and Coke cans, an empty beer bottle, and a half-full bottle were in the cleanout. In another cleanout, he found a half-roll of toilet paper and other material. In a third cleanout, he found the cap broken off and a large stick inside. (Test. of Phillip Morsman.)

14. Mr. Morsman reported the apparent vandalism to the Jefferson County Sheriff's Office. (Ex. R27.) The Morsmans did not report the matter to the DEQ because there had been no discharge from the well. (Test. of Phillip Morsman.)

15. On or about June 18, 2006, the trailer park's disposal well discharged sewage onto the ground surface. A substantial flow of liquid poured from the well head, leaving toilet paper and puddles that smelled of sewage on the ground. (Test. of Bedell and exs. A15, A16, and A17.) On the advice of a septic tank pumping service, Mr. Morsman put caustic soda into the septic tank to break down solids in the tank. (Test. of Phillip Morsman.) The Morsmans did not report this incident to the DEQ. (Test. of Bedell.)

16. The Morsmans sometimes drained the trailer park's swimming pool to clean it. (Test. of Brigitte Morsman and ex. R20.) However, the pool is 200 feet from the well head and next to the road so that the water drained from the pool would flow down the road-side ditch rather than onto the ground around the well head. The well head is uphill from the road-side ditch. (Test. of Bedell and ex. A20.)

17. On October 17, 2006, sewage discharged from the trailer park's well head onto the ground surface and flowed down the roadside ditch toward the culvert under the public road. The discharge coated vegetation with solids from the effluent. It smelled of sewage and contained suspended solids and toilet paper. The area uphill of the well head was dry and brown, while the brush below the well head was thicker and greener, and algae grew in the roadside ditch. These conditions showed that the discharge was not a one-time event; the disposal well had discharged nutrients and moisture onto the ground surface over an extended time. (Test. of Black and exs. A18 through A24.)

18. On October 18, 2006, Mr. Baggett of the DEQ inspected the Morsmans' park and noticed sewage had come out of the well, flowed down the roadside ditch to a culvert under the public road, and accumulated on a highway embankment. A pumper truck was there pumping the septic tank. (Test. of Baggett.) Mr. Morsman and the pumper truck operator pulled a green shirt and other materials out from the well. (Test. of Phillip Morsman and Middleton.) After Mr. Morsman pulled the materials out of the well, the well still drained slowly. (Test. of Phillip Morsman and ex. R26.)

19. Mr. Baggett told Mr. Morsman that he would have to discuss the well's failure with the DEQ's manager. Mr. Baggett instructed Mr. Morsman in the meantime to continue pumping the tank and to apply for a letter permit from the DEQ to clean out the well. The Morsmans continued pumping the septic tank from October 18 through October 26, 2008, to keep the sewage level down. The pumping cost the Morsmans nearly $22,000. (Ex. R22.)

20. On October 23, 2006, the DEQ received information that the Morsmans' well failed again. Mr. Baggett investigated and saw sewage coming out of the well, running down a ditch, and accumulating close to the culvert. The Morsmans did not notify the DEQ of this well failure. (Test. of Baggett.)

21. On October 25, 2006, the DEQ representatives again found sewage discharging from the Morsmans' well and flowing into the roadside ditch. The flow was more than that of October 18, 2006. (Test. of Baggett.)

22. On October 25, 2006, representatives of the DEQ and the City of Madras met with the Morsmans regarding the failure of the Morsmans' sewage system. At the meeting, city representatives told the Morsmans that the city was in the process of bringing its main sewage line across the highway toward the Morsmans' trailer park and the line would reach Lee Street, a quarter-mile from the park, by July 2007. The DEQ told the Morsmans that an alternative to their disposal well had thus become reasonably available and that they must decommission the park's well and connect to the city's sewer line when it reached Lee Street. The DEQ, city representatives, and the Morsmans discussed the hook-up costs extensively and the Morsmans had enough information to understand the approximate cost to hook-up to the city sewer line. (Test. of Morgan.) The Morsmans agreed to decommission the park's well, connect to the city's sewer, and sign a Mutual Agreement and Order (MAO) confirming the agreement. The MAO was to specify the method and timelines for the Morsmans to connect to the city sewer line. (Test. of Baggett and ex. A25.)

23. If the Morsmans would not have agreed at the October 25, 2006, meeting to connect to the city's sewer line, the DEQ would not have issued a letter permit to the Morsmans. Rather, the DEQ would have discussed other means of dealing with the overflowing well, including requiring the Morsmans to continue daily pumping of the septic tank. The DEQ did not issue a letter permit earlier because it wanted to ensure that the Morsmans would not enlarge the well or otherwise alter it under the normal repair permit system. (Test. of Nigg.)

24. Based on the Morsmans' agreement to connect to the city sewer as soon as it reached Lee Street and to enter into the MAO, on October 26, 2006, the DEQ issued a letter permit to the Morsmans allowing them to hire a well driller to clear out any obstructions in the well. (Test. of Baggett and ex. A25.) The letter permit referred to the Morsmans' "verbal agreement" at the October 25, 2006, meeting to "enter into a Mutual Agreement and Order requiring connection to City sewer." The Morsmans did not object to or otherwise respond to the statements in the letter permit. (Test. of Phillip Morsman.)

25. On October 26, 2006, the Morsmans' driller drilled 260 feet into the drywell before encountering any obstruction. The driller then felt something significant in the well give way. The drill reached the well's bottom at 326 feet. A baler sent to the bottom retrieved no materials that would have obstructed the well. (Test. of Baggett.)

26. The DEQ's rules provide that drain holes, such as the Morsmans' well, may be no deeper than 100 feet. The fact that the Morsmans' well was 326 feet deep concerned the DEQ because the well was deeper and closer to ground water sources than the DEQ previously believed. (Test. of Baggett.)

27. The city's sewage line had been within 11,000 feet of the Morsmans' park for years. The DEQ had not required the Morsmans to connect to the sewage line because it was unclear whether the city's sewer had the capacity to receive the Morsmans' sewage and the DEQ was waiting for the city's sewage line to move closer to the Morsmans' park. (Test. of Baggett.)

28. The city's sewer line reached Lee Street in approximately September 2007. (Test. of Morgan.) The city informed the DEQ on October 2, 2007, that its sewer line was available for connection to the Morsmans' park. (Test. of Nigg.) The straight-line distance from the Morsmans' park to the Lee Street connection point is 1,230 feet. The distance of the most direct route for the connection following existing roads and rights-of-way is 1,737 feet. (Test. of Baggett.)

29. On November 7, 2007, the DEQ sent to the Morsmans a pre-enforcement notice stating that "[b]ecause another method of waste disposal has become reasonably available, the rules require that you decommission your disposal well." The notice instructed the Morsmans to contact the City of Madras and "initiate the process of connecting all structures having wastewater flows on the [trailer park] to the City sewerage system. Submit engineered plans to the City within twenty (20) days after making contact with the City, and have the connection line to the City's system completed within sixty (60) days following approval by the City of the plans." (Ex. A26.)

30. In May 2007, the Morsmans' attorney had attempted to get construction cost estimates from the City of Madras. To avoid potential liability, the city declined to use public resources to provide an estimate and asked the Morsmans to obtain their own estimate. (Ex. R58.) The Morsmans did nothing further to find out the cost of connecting to the city's sewer line until April 22, 2008, when they obtained estimates in preparation for this contested case hearing. (Test. of Phillip Morsman.)

31. On April 22 and 23, 2008, the Morsmans obtained "rough" or "ball park" estimates from two contractors of the cost to connect the trailer park to the city's sewer line at Lee Street. The Morsmans had not prepared any engineered plans or provided the contractors details regarding the depth of the excavation, the soil conditions, surface restoration required, or access conditions. Based only on conversations with Mr. Morsman, the contractors estimated that the cost would be approximately $400,000. (Exs. R30 and R32.)

32. On April 22, 2008, the Morsmans obtained a cost estimate for professional engineering and surveying services to design and oversee construction of a sewer line from the trailer park to Lee Street. The engineer's estimate stated that the proposed sewer line "appears to be within existing public right of ways allowing construction without the need for easements." The estimated cost for the engineering and surveying services was $50,470, plus or minus 20 percent. (Ex. R31.)

33. Also on April 22, 2008, the Morsmans inquired of one bank for a $300,000 second-mortgage loan to upgrade the sewer system. The bank declined the request because of "insufficient reported income to existing debt servicing requirements." (Ex. R36.)

34. The Morsmans refinanced their mortgage loan in April 2006. With the proceeds from the refinance, they paid off their previous mortgage of $621,437, paid a prepayment penalty of nearly $37,000, and received cash of nearly $115,000. As a result of the refinance, the Morsmans incurred an $800,000 mortgage debt. (Ex. R35.)

35. The Morsmans did not apply to the DEQ for a waiver from the connection requirement based on the financial burden. Nevertheless, before the DEQ issued the pre-enforcement notice, the DEQ's water quality manager discussed whether to waive the requirement with the DEQ deputy director and director. They decided not to waive the requirement because of the environmental risks presented by the Morsmans' well. (Test. of Nigg.)

CONCLUSIONS OF LAW

1. Respondents violated Schedule D, Condition 5 of the Permit, ORS 468B.025(2), and OAR 340-044-0015(3)(b) (Violation I) by failing to decommission the waste disposal well and failing to connect to the City of Madras's sewer system since November 7, 2007.

2. Respondents violated OAR 340-071-0130(3) (Violation II) by discharging untreated or partially treated wastewater or septic tank effluent directly or indirectly onto the ground surface on or about June 18, 2006, October 18, 2006, October 23, 2006, and October 25, 2006.

3. Respondents did not violate Schedule D, Condition 7 of the Permit and OAR 340-044-0017(1) by pouring "caustic soda" into the waste disposal well in June 2006.

4. Respondents violated Schedule D, Condition 6 of the Permit and ORS 468B.025(2), by failing to report waste disposal well failures to the Department within 24 hours on or about

June 18, 2006. Respondents did not violate Schedule D, Condition 6 of the Permit and ORS 468B.025(2) on October 18, 2006.

5. Respondents are subject to civil penalties of $192,842 for Violation I and $1,500 for Violation II.

OPINION

The DEQ's Order required respondents to discontinue the use of the waste disposal well and to decommission the well; to connect to the City of Madras's sewerage system or discharge sewage only to an approved disposal system; and to submit to the DEQ documentation showing compliance with the DEQ's order. The Order assessed civil penalties against respondents in the amount of $193,092 and $1,750 for two alleged violations of Oregon law. Respondents dispute some of the alleged violations and assert that decommissioning the disposal well and connecting to the city's sewer system would be financially impracticable and unreasonably burdensome.

The proponent of a fact or position in a contested case has the burden of presenting evidence to support the fact or position. ORS 183.4450(2). The DEQ has the burden of persuasion to establish each element of each alleged violation and the legal justification for the civil penalty imposed. Respondents have the burden of persuasion to establish that financial burden and impracticability is a defense to the DEQ's Order and, if so, that compliance with the Order would be financially impracticable and unduly burdensome. The standard of proof in a contested case proceeding is a preponderance of the evidence. *Gallant v. Board of Medical Examiners,* 159 Or App 175 (1999).

Violation 1: Failing to Decommission Well and Connect to City's Sewer System

The Environmental Quality Commission has declared that waste disposal wells in Central Oregon are public health threats that should be completely phased out as quickly as possible. OAR 340-044-0010(2) provides, in part:

> The injection of untreated or inadequately treated sewage or wastes to waste disposal wells and particularly to waste disposal wells in the lava terrain of Central Oregon constitutes a threat of serious, detrimental and irreversible pollution of valuable groundwater resources and a threat to public health. The policy of the Environmental Quality Commission is to restrict, regulate or prohibit the further construction and use of waste disposal wells in Oregon and to phase out completely the use of waste disposal wells as a means of disposing of untreated or inadequately treated sewage or wastes as rapidly as possible in an orderly and planned manner.

Since 1983, the DEQ's administrative rules have required a permit to use existing sewage drain holes and have prohibited their use if municipal sewer service is available. OAR 340-044-0015(3)(b) and (4) provide:

(3) No person shall cause or allow Class V injection systems injecting sanitary waste, sewage, or industrial or commercial waste into sewage drain holes or sewage drill holes, except as allowed under OAR 340-044-0015(3)(b), 340-044-0017, or 340-044-0018(3).

* * * * *

(b) After January 1, 1983, use of existing sewage drain holes or sewage drill holes is prohibited unless municipal sanitary sewer service is not available to the property. Except for single family residences, use of an existing sewage drain hole must be authorized by a permit.

(A) Sanitary sewer service shall be deemed available to a property when:

(i) A sanitary sewer is extended to within 300 feet from the property boundary for a single family dwelling or other establishment with a maximum design flow of not more than 450 gallons per day, or 200 feet multiplied by the number of dwellings or dwelling equivalents for other establishments or greater flows, and

(ii) A sanitary sewer system is not under a connection permit moratorium and the system owner is willing or obligated to provide sewer service.

(B) Within 90 days after sanitary sewer service is available to a property, the owner of that property shall make connection to the sewer and shall abandon and decommission the sewage drain hole in accordance with OAR 340-044-0040. On a case-by-case basis, the Director may waive the requirement to connect to sewer if the Director determines that connection to the sewer is impracticable or unreasonably burdensome.

(c) No person shall modify any structure or change or expand any use of a structure or property that utilizes a sewage drain hole.

(4) After the effective date of these rules, no person shall construct, place in operation or operate any allowable injection system without first obtaining a permit from the Director, unless the injection system is authorized by rule under OAR 340-044-0018.

The violation of the conditions of a waste discharge permit is prohibited and constitutes a public nuisance. ORS 468.025(2) and (3).

The DEQ issued a water pollution control facilities permit to the Morsmans in 1999. The Permit allowed the Morsmans to operate a waste disposal well—a Class V injection system—subject to conditions. Schedule D, Condition 5 of the Permit stated that the well would be allowed on an "interim" basis and must be abandoned when an area-wide sewage facility became available.

On October 25, 2006, the DEQ informed the Morsmans that an area-wide sewerage facility would become available in approximately July 2007 when the City of Madras's sewer line would reach Lee Street, 1,230 feet from the Morsmans' trailer park. The DEQ informed the Morsmans that they then would have to abandon the well and connect to the City of Madras's sewer line.

The City of Madras's sewer line reached Lee Street in September 2007. On November 7, 2007, the DEQ gave the Morsmans formal notice to decommission the well, initiate the process of connecting to the city's sewer line at Lee Street, submit engineered plans to the city, and complete the connection within sixty days following the city's approval of the plans.

The Morsmans have not complied with the DEQ's notice. They do not dispute that the city's sewer line is "reasonably available" at Lee Street, 1,230 feet from their trailer park. Indeed, under OAR 340-044-0015(3)(b)(A)(i), sewer service would have been "deemed available" to the Morsmans' trailer park when the city's sewer was 11,000 feet from the park (55 dwellings times 200 feet). Accordingly, the Morsmans' failure to connect to the city's sewer after they received the DEQ's notice violated the terms of the Permit.

The DEQ's Order determined that the violation started from October 2, 2007, but that was the date the city informed the DEQ that the sewer line had reached Lee Street. I conclude that the violation started from the date the DEQ gave notice to the Morsmans on November 7, 2007.

Waiver Based on Impracticability and Unreasonable Burden

The Morsmans argued that under OAR 340-044-0015(3)(b)(B) the DEQ should waive the requirement to connect to the city's sewer because the connection is impracticable and unreasonably burdensome. They argued that the connection costs would exceed $400,000 and they are not able to obtain a loan even for $300,000. According to the Morsmans, the DEQ's Order either to connect to the city's sewer or abandon the waste disposal well would effectively shut down the trailer park and leave the low income residents with no place to live.

The DEQ contended that the rule requires an express waiver request, the Morsmans did not make such a request until the day of the hearing, and it would be inappropriate to rule on the request now. The Morsmans responded that a formal waiver request was unnecessary—in the past, without a waiver request, the DEQ implicitly considered impracticability and undue burden when it decided not to require the Morsmans to connect to the city's sewer line when the line was more than one quarter mile from their trailer park.

The DEQ's interpretation of its waiver rule is both plausible and reasonably consistent with the rule's wording. I am required to defer to the DEQ's interpretation of its own rules. OAR 340-011-0545(3) ("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."); *see also Oregon Restaurant Services v.*

Oregon State Lottery, 199 Or App 545, 561-62 (2005); *Johnson v. Employment Dept.*, 187 Or App 441, *rev den* 336 Or 60 (2003) (director's statutorily authorized representative may state interpretation entitled to deference).

The Morsmans did not request a waiver from the DEQ until the day of the hearing of this contested case. The rule provides that the waiver is within the discretion of the DEQ's director. The director has not ruled on the Morsmans' waiver request and it would be premature for me to do so now.

Even if the Morsmans' waiver request were timely for purposes of this hearing, the Morsmans did not establish that connecting to the city's sewer would be impracticable and their evidence at the hearing was inadequate to determine whether the connection to the city's sewer would be unreasonably burdensome. Webster's Third New International Dictionary, Unabridged, defines "impracticable" as "incapable of being performed or accomplished by the means employed or at command." The Morsmans presented no evidence that connecting to the city's sewer line would be impracticable in this sense. Indeed, the Morsmans presented two tentative bids from contractors that showed the connection can be accomplished.

The Morsmans did not present persuasive evidence that the costs of connecting to the city's sewer were unreasonably burdensome. First, the Morsmans did not establish a reliable estimate of the connection's costs. The Morsmans' cost estimates were extremely tentative. They were not based on engineered plans and the Morsmans provided the contractors insufficient details on which to base accurate estimates.

Second, the Morsmans presented insufficient evidence regarding their financial circumstances. The evidence suggested that the Morsmans orally inquired of only one bank for a loan. They presented no documentary evidence of their assets, income, or expenses.

Finally, the Morsmans knew since 1997 that they would be required to abandon the disposal well and connect to the city's sewer system. Yet, they failed to explain why they did not prepare for that expense but instead, in April 2006, refinanced their mortgage, paying a prepayment penalty of nearly $37,000, receiving cash of nearly $115,000, and substantially increasing their mortgage debt. By this, the Morsmans made it more difficult for them to qualify for a loan with which to pay for the sewer connection.

No Actual Harm Defense

The Morsmans also argued that there have been no problems with the disposal well since October 2006, when they pumped the septic tank, removed obstructions in the well cleanouts, fenced off the septic tank and the well, and installed lights and a surveillance camera to prevent vandalism. They argue that there is no evidence that the well has contaminated any groundwater and, in any event, the city has not used nearby drinking water wells for more than 20 years.

These arguments were not persuasive. The Environmental Quality Commission made the policy decision to phase out disposal wells when alternative waste disposal systems become reasonably available. OAR 340-044-0010. The applicable rules do not require a showing of

actual harm before the DEQ can require the well to be decommissioned. If an alternative disposal system has become reasonably available, it is no defense that the well has not failed since October 2006 and that the well has not actually contaminated groundwater. *See City of Klamath Falls v. Environmental Quality Commission*, 318 Or 532 (1994).

I conclude, therefore, that the Morsmans violated Schedule D, Condition 5 of the Permit, ORS 468B.025(2), OAR 304-044-0015(3)(b), and OAR 340-012-0053 since November 7, 2007.

Violation 2: Discharging Sewage onto Ground Surface

OAR 340-071-0130(3) provides:

> 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.

Owning, operating or using an onsite wastewater treatment system that is discharging sewage or effluent to the ground surface or into waters of the state constitutes a violation. OAR 340-012-0060(1)(d).[2] The DEQ alleges that the Morsmans violated OAR 340-071-0130(3) on June 18, 2006, October 18, 2006, and October 23, 2006.

June 2006 Discharge

The evidence at the hearing established that on June 18, 2006, the Morsmans' waste disposal well discharged a substantial amount of sewage onto the ground. The Morsmans argued that the apparent discharge actually was water they drained from the trailer park's swimming pool. The argument was not convincing. More likely than not, water from the pool would have flowed down the road-side ditch instead of collecting, as it did, around the well and uphill from the ditch. Also, swimming pool water would not have left toilet paper and puddles that smelled of sewage.

October 2006 Discharges

The Morsmans did not dispute that sewage spilled from the well onto the ground surface on October 18, 23, and 25, 2006. Respondents' Closing Arguments at 12. They argued that they were not at fault because the October 18 discharge was due to vandalism and that the DEQ prevented them from clearing the well until October 26, 2006, thereby increasing the risk of spillage during the pumping of the septic tank.

Neither OAR 340-071-0130(3) nor OAR 340-012-0060(1)(d) require intent or even negligence for a violation. Those considerations may be relevant to determine the amount of the civil penalty. But simply owning or operating a waste disposal system that discharges sewage onto the ground—even if the discharge were due to vandalism—constitutes a violation.

[2] An "onsite wastewater treatment system" includes a standard subsurface sewage system consisting of a septic tank, distribution unit, and absorption facility. OAR 340-071-0100(100) and (154).

Likewise, the fact that the well overflowed during the pumping of the septic tank is enough for a violation and it is no defense that the DEQ did not allow the Morsmans to drill the well until October 26, 2006.

I conclude that the Morsmans violated OAR 340-071-0130(3) and OAR 340-012-0060(1)(d) on June 18, October 18, October 23, and October 25, 2006.

Violation 3: Repairing Sewage Drain Hole without DEQ Permit

OAR 340-044-0017(1) provides that "[n]o person shall repair or attempt to repair a plugged or otherwise failing sewage drain hole or sewage drill hole unless a repair permit is issued according to the terms and conditions in OAR 340-071-0215." Schedule D, Condition 7 of the Permit stated: "No waste disposal well shall be repaired without a written letter permit from the Department."

The DEQ's Notice of Violation alleges that the Morsmans poured caustic soda into their sewage drain hole in an attempt to repair it in violation of the rule and the Permit. The allegation is based solely on Mr. Baggett's testimony that Mr. Morsman told him in October 2006 that he had put caustic soda into the well in June 2006. At the hearing, Mr. Morsman testified that he put caustic soda into the septic tank, not into the well. He denied telling Mr. Baggett that he put the caustic soda into the well.

I find that Mr. Morsman's first-hand testimony on this issue is more persuasive than Mr. Baggett's recollection of Mr. Morsman's statement made more than two years ago. Because the DEQ has the burden of proof on this issue, I conclude that the DEQ did not establish that the Morsmans violated OAR 340-044-0017(1), OAR 340-012-0053, or the Permit by pouring caustic soda into the well in June 2006.

Violation 4: Failing to Report Well Failure

ORS 468B.025(2) provides that no person shall violate the conditions of any waste discharge permit issued under ORS 468B.050. Schedule D, Condition 6 of the Permit stated: "If any waste disposal well covered by this permit fails and is unable to dispose or drain the amount of sewage discharged to it, the permittee shall contact the Department within 24 hours." The purpose of this condition was to ensure that the Morsmans would contact the DEQ to determine the appropriate means of addressing a failing disposal well.

The Morsmans did not contact the DEQ within 24 hours of the June 18, 2006, discharge. They argued that there was no sewage discharge to report for that incident but, as I discussed above, the argument is not credible. The Morsmans' violated the Permit's conditions by not reporting the June 18, 2006, well failure.

The Morsmans' well failed again on October 17, 2006. The DEQ learned of the failure the next day and immediately contacted the Morsmans to determine how to address the failure. Thus, although the Morsmans did not initiate the contact, the Morsmans and the DEQ did have contact within 24 hours of the failure. The purpose of the Permit's condition had been satisfied.

In these circumstances, I conclude that on October 18, 2006, the Morsmans did not violate this condition of the Permit and therefore did not violate ORS 468B.025(2) and OAR 340-012-0053.

Civil Penalties

OAR 340-012-0026(5) states the DEQ's civil penalties policy:

> The department assesses civil penalties based on the class of violation, the magnitude of violation, the application of the penalty matrices and aggravating and mitigating factors, and the economic benefit realized by the respondent.
>
> (a) Classification of Violation. Each violation is classified as Class I, Class II or Class III. Class I violations have the greatest likelihood of actual or potential impact to human health or the environment or are of the greatest significance to the regulatory structure of the given environmental program. Class II violations are less likely than Class I violations to have actual or potential impact to human health or the environment. Class III violations have the least likelihood of actual or potential impact to human health and the environment. (See OAR 340-012-0053 to 340-012-0097.)
>
> (b) Magnitude of Violation. For Class I and Class II violations, the department uses a selected magnitude or determines the magnitude based on the impact to human health and the environment resulting from that particular violation. A magnitude is not determined for Class III violations. (See OAR 340-012-0130 and 340-012-0135.)
>
> (c) Base Penalty Matrices. The department uses the base penalty matrices to determine an appropriate penalty based on the classification and magnitude of the violation. (See OAR 340-012-0140.)
>
> (d) Aggravating and Mitigating Factors. The department uses the aggravating and mitigating factors to adjust the base penalty to reflect the particular circumstances surrounding the violation. These factors include the duration of the violation, the respondent's past compliance history, the mental state of the respondent, and the respondent's cooperativeness in achieving compliance or remedying the situation. (See OAR 340-012-0145.)
>
> (e) Economic Benefit. The department adds the economic benefit gained by the respondent to the civil penalty to achieve deterrence and create equity between the respondent and those regulated persons who have borne the expense of maintaining compliance. (See OAR 340-012-0150.)

OAR 340-012-0045 states the civil penalty determination procedure:

> Except as provided in OAR 340-012-0038(3), in addition to any other liability, duty, or other penalty provided by law, the department may assess a civil penalty for any violation. Except for civil penalties assessed under OAR 340-012-

0155(2), the department determines the amount of the civil penalty using the following procedures:

(1) The classification of each violation is determined by consulting OAR 340-012-0053 to 340-012-0097;

(2) The magnitude of the violation is determined as follows:

(a) The selected magnitude categories in OAR 340-012-0135 are used.

(b) If a selected magnitude is not specified in OAR 340-012-0135, or if information is not reasonably available to determine which selected magnitude applies, OAR 340-012-0130 is used to determine the magnitude of the violation.

(c) The appropriate base penalty (BP) for each violation is determined by applying the classification and magnitude of each violation to the matrices in OAR 340-012-0140.

(d) The base penalty is adjusted by the application of aggravating or mitigating factors (P = prior significant actions, H = history in correcting prior significant actions, O = repeated or ongoing violation, M = mental state of the violator and C = efforts to correct) as set forth in OAR 340-012-0145.

(e) The appropriate economic benefit (EB) is determined as set forth in OAR 340-012-0150.

(2) The results of the determinations made in section (1) are applied in the following formula to calculate the penalty: BP + [(0.1 x BP) x (P + H + O + M + C)] + EB.

(3) In addition to the factors listed in section (1) of this rule, the director may consider any other relevant rule of the commission in assessing a civil penalty and will state the effect that rule had on the penalty amount.

Civil Penalty for Violation 1

The Morsmans' failure to decommission the waste disposal well and connect to the City of Madras's sewer system is not a violation of a specified classification under OAR 340-012-0053. It is therefore a Class II violation under that rule.

The DEQ properly determined that the violation's magnitude was moderate. The violation is not within one of the selected magnitude categories set forth in OAR 340-012-0135. Under OAR 340-012-0130, a violation's magnitude may be major if it "had a significant adverse impact on human health or the environment." A violation's magnitude may be minor if "the violation had no more than a de minimus threat to human health or other environmental receptors." OAR 340-012-0130(3) and (4). The Morsmans' violation was not major because there was no evidence of a significant adverse impact on human health or the environment. It was not minor because there was more than a de minimus threat to human health or the environment. Therefore, the magnitude is moderate. OAR 340-012-0130(1).

Under OAR 340-012-0140(4)(b)(B)(ii) and OAR 340-012-0140(4)(a)(E)(v), $625 is the applicable base penalty for a Class II, moderate magnitude violation of ORS 468B.025, a water quality statute, by a person who owns and has or should have registered an underground injection control system that disposes of sewage.

The base penalty must be adjusted by applying aggravating or mitigating factors. The "P" and "H" aggravating factors are 0 because the Morsmans had no prior significant actions. OAR 340-012-0145(2)(a)(A) and (3)(a)(C). The "O" aggravating factor is 4 because the violation existed since November 7, 2007. OAR 340-012-0145(4)(a)(D). The DEQ determined that the "M" mental state factor is 10 because the Morsmans acted "flagrantly." I disagree. OAR 340-012-0030(8) defines "flagrantly" to mean "the respondent had actual knowledge that the conduct was unlawful and consciously set out to commit the violation." I am not persuaded that the Morsmans acted with a specific intent to commit the violation. Rather, they had actual knowledge that their failure to abandon their waste disposal well would be a violation and their continued use of the well was "intentional" within the meaning of OAR 340-012-0145(5)(a)(C). The "M" factor, therefore, should be 6 under that rule. The "C" mitigating factor is 2 because the Morsmans have not shown that they adequately addressed the violation. They made little, if any, effort to determine the cost of connecting to the city's sewer between November 7, 2007, when the DEQ demanded compliance, and April 22, 2008, when the Morsmans first made oral inquiries of one bank, an engineering firm, and contractors.

The DEQ determined that the Morsmans gained an economic benefit (the "EB" factor) of $191,467 because they avoided spending $272,455 to connect to the city's sewer. The Morsmans did not challenge either figure. Indeed, according to the Morsmans' own estimate, they avoided spending more than $400,000 by not making the connection. Accordingly, I find that the DEQ's economic benefit determination is appropriate.

Applying the results of the above factors in the penalty calculation formula set forth in OAR 340-012-0045(2), the penalty amount for Violation I is $192,842.

Civil Penalty = (BP) + (0.1 x BP) X (P + H + O + M + C) + EB
$625 + [(.1 x $625) x (0 + 0 + 4 + 6 + 2)] + $191,467
$625 + [$62.50 x 12] + $191,467
$625 + $750 + $191,467 = $192,842

Civil Penalty for Violation 2

Owning, operating, or using an onsite wastewater treatment system that is discharging sewage or effluent to the ground surface is a Class I violation under OAR 340-012-0060(1)(d). The violation is not within one of the selected magnitude categories set forth in OAR 340-012-0135. The Morsmans' violation was not major because there was no evidence of a significant adverse impact on human health or the environment. It was not minor because there was more than a de minimus threat to human health or the environment. Therefore, the magnitude is moderate. OAR 340-012-0130(1). Under OAR 340-012-0140(4)(b)(A)(ii) and OAR 340-012-0140(4)(a)(F), $1,250 is the applicable base penalty for a Class I, moderate magnitude violation of OAR 340-071-0130(3), an onsite sewage disposal rule.

The "P" and "H" aggravating factors are 0 because the Morsmans had no prior significant actions. OAR 340-012-0145(2)(a)(A) and (3)(a)(C). The "O" aggravating factor is 2 because the violation occurred on four specific days. OAR 340-012-0145(4)(a)(B). The "M" mental state factor is 2 because the Morsmans had at least constructive knowledge that the discharges violated the Permit and the evidence showed that, more likely than not, the Morsmans negligently allowed the well to discharge sewage over an extended time in addition to the four specific days for which they are subject to the penalty. The "C" mitigating factor is -2 because—at least for the discharges on June 18 and October 18, 23, and 25, 2006—the Morsmans made reasonable efforts to correct the violation or reasonable affirmative efforts to minimize the effects of the violation. OAR 340-012-0145(6)(a)(B). The DEQ determined that the Morsmans gained an economic benefit ("EB" factor) of $0 because it had insufficient information on which to base an estimate. There is no reason to disturb that determination.

Applying the results of the above factors in the penalty calculation formula set forth in OAR 340-012-0045(2), the penalty amount for Violation II is $1,500.

Civil Penalty = (BP) + (0.1 x BP) X (P + H + O + M + C) + EB
$1,250 + [(.1 x $1,250) x (0 + 0 + 2 + 2 - 2)] + $0
$1,250 + [$125.00 x 2] + $0
$1,250 + $250 + $0 = $1,500

ORDER

I propose the DEQ issue the following order:

Respondents Phillip Dean Morsman and Brigitte Renate Morsman shall comply with the Notice of Violation, Department Order and Civil Penalty Assessment dated December 19, 2007, except that:

1. Respondents shall pay to the General Fund of the State Treasury a civil penalty in the amount of $192,842 for violating ORS 468B.025(2), OAR 304-044-0015(3)(b), and OAR 340-012-0053; and

2. Respondents shall pay to the General Fund of the State Treasury a civil penalty in the amount of $1,500 for violating OAR 340-071-0130(3) and OAR 340-012-0060(1)(d).

/s/ James Han
James Han
Administrative Law Judge
Office of Administrative Hearings

ISSUANCE AND MAILING DATE: October 21, 2008

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:

Department of Environmental Quality
c/o Jane Hickman, 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 is 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.

APPENDIX A
LIST OF EXHIBITS CITED

Exhibit No.	Description
A1	DEQ (Richard Nichols) letter dated February 25, 1997
A2	DEQ (Richard Nichols) Notice of Noncompliance dated April 26, 1999
A3	Water Pollution Control Facilities Permit
A4	DEQ (Richard Nichols) letter dated August 5, 1999
A15 to A24	Photographs
A25	DEQ (Eric Nigg) letter dated October 26, 2006
A26	DEQ (Eric Nigg) Pre-enforcement Notice dated November 7, 2007
R20	Sunrise Pools letter dated January 8, 2008
R22	Middleton's Septic Pump Service invoice dated December 14, 2006
R26	Joe Sain letter dated March 8, 2007
R27	Jefferson County Sheriffs Office Incident Report
R30	Knife River (James Baker) letter dated April 22, 2008
R31	Tye Engineering & Surveying, Inc., letter dated April 22, 2008
R32	Hooker Creek Asphalt & Paving estimate dated April 23, 2008
R35	Jefferson County Title Borrower Statement dated April 4, 2006
R36	Bank of the West (J. Broker) letter dated April 22, 2008
R58	Email from Mike Morgan dated May 18, 2007

CERTIFICATE OF MAILING

On October 21, 2008, I mailed the foregoing Second Corrected Proposed and Final Order in OAH Case No. 800409.

By: First Class Mail

Michael Sheehan
Attorney at Law
33126 SW Callahan Rd
Scappoose OR 97056

Leah Koss
Dept. of Environmental Quality
811 SW 6TH Ave
Portland OR 97204

Pam Arcari
Administrative Specialist
Hearing Coordinator

December 19, 2007

CERTIFIED MAIL No. 7006 0100 0002 8261 7363

Phillip D. Morsman and Brigitte R. Morsman, dba Tops Trailer Park
c/o Michael F. Sheehan, Attorney at Law
33126 S.W. Callahan Road
Scappoose, OR 97056

Re: Notice of Violation, Department Order, and Civil Penalty Assessment
Case No. WQ/D-ER-07-186
Jefferson County

In 1999, the Department of Environmental Quality (Department) approved your registration under Water Pollution Control Facilities (WPCF) General Permit No. 4400 (Permit) for the waste disposal well system, consisting of a septic tank and injection well (Well), on property you own located at 23 NW Depot Road in Madras, Oregon, known as the Tops Trailer Park (Facility). The Permit allows you to operate and maintain the Well consistent with the conditions of the Permit and Oregon statutes and rules.

The Permit is considered an interim permit because, in an effort to protect groundwater, the environment and public health, the state is working to phase out waste disposal wells altogether. Two important conditions of your permit are: (1) You were required to abandon the Well and connect the Facility to city sewer when sewer became available; and (2) The prohibition of any discharge of sewage to the ground surface.

In June 2006, the Department received notice from Keith Bedell, Public Works Director with the City of Madras (City), that the Well failed and discharged sewage to the ground surface on June 18, 2006. On October 18, 2006, Rich Black, of the Jefferson County Community Development Department, Onsite Wastewater Section (County), and Robert Baggett, of the Department, visited the Facility and observed that the Well was discharging sewage onto the ground surface. The discharged sewage was flowing downslope, into a roadside ditch along Northwest 4th Street. The flow extended into a culvert that crossed under the roadway at the corner of Northwest 4th Street and Burch Lane and into a grassy area along a large escarpment that slopes down to US Hwy 26. Had the flow gone further, it would have reached Willow Creek, waters of the state.

During the visit, Mr. Morsman mentioned that a similar discharge of sewage had occurred in June and that he had placed "caustic soda" into the Well in June to dissolve whatever was presumably plugging the Well. Mr. Morsman also expressed his belief that someone had vandalized the Well by placing material into it which may have lodged beyond reach.

Regardless of whether or not the Well had been vandalized, your Permit required you to report the system failure and discharge of sewage to the Department, and the treatment of the Well with caustic soda is strictly prohibited by Oregon law.

During the October 18 site visit, a pump truck arrived and pumped a 1,500-gallon load of sewage out of the septic tank. Mr. Baggett instructed Mr. Morsman to pump the tank more often to keep sewage from being discharged onto the ground surface from the Well and that any repairs to the Well would first need to be discussed with the Department.

On October 23, 2006, Mr. Black called Mr. Baggett to report that the Well was again discharging sewage onto the ground surface. On October 25, 2006, Mr. Baggett met with the Morsmans, staff of the Department, the City, and the County to discuss interim measures and final solution for the failed Well. At that meeting you and the Department discussed the violations of your Permit including the discharges and your failure to connect to the City of Madras sewer as required by your Permit and Oregon law. In this meeting, you agreed to enter into a Mutual Agreement and Order (MAO) with the Department which would require you to connect to the City sewer and decommission your Well when the City sewer reached Lee Street, or approximately 1,800 feet from your Facility. Although your Permit requires you to now connect to City sewer and the sewer line is within approximately 1,800 feet of your Facility, you still have not connected to the City sewer.

On October 25, 2007, Mr. Baggett and Eric Nigg of the Department conducted a site visit at the Facility and again found sewage discharging from the Well and flowing into the roadside ditch along Northwest 4th Street. The flow was more extensive than that which Mr. Baggett had observed on October 18, 2007. There was evidence that the sewage was flowing down the escarpment along US Hwy 26 and then into a culvert that runs under US Hwy 26.

Your failure to connect to City sewer and to abandon the Well is a serious violation of your Permit and of Oregon law. The Department has been working to phase out waste disposal wells such as the Well at your Facility for many years, a fact of which you have been aware of since the Department first sent you a Notice of Noncompliance in 1999 for operating the Well without a Permit. Your WPCF Permit also notifies you of the intention of the Department to phase out these wells and of the requirement that upon reasonably available connection to city sewer that you immediately abandon the Well and submit a plan to connect to the City sewer.

The drinking water supply for the City of Madras comes from underground wells, one of which is within approximately one-quarter of a mile of your Facility. The Well at your Facility reaches a depth of approximately 326 feet, which is only approximately 30-40 feet above the drinking water well system. The Department is concerned that the Well at your Facility will impact drinking water for the City of Madras.

Your Permit and Oregon law also prohibit discharge of sewage onto the ground surface. The discharge of untreated or partially treated sewage from your Well is unlawful because it presents a potential threat to human health through direct human contact or through contact with insects

and other vectors that have been in contact with the sewage. Sewage is also an environmental threat and a significant pollutant that can harm aquatic life, contaminate drinking water, and impair recreational, commercial, and agricultural uses of water. The threat to human health is especially great because these sewage discharges occurred on a residential property. Further, you did not contact the Department within 24 hours of any of the failures of your Well described above, in violation of your Permit.

In the enclosed Notice of Violation, Department Order, and Civil Penalty Assessment (Notice and Order), the Department has assessed a civil penalty of $194,842 for failing to connect to the City of Madras sewer system and for discharging sewage onto the ground surface. Of this amount, $191,467 represents the economic benefit you obtained by failing to decommission the Well at your Facility and failing to connect to the City sewer at the time it became reasonably available to the Facility. If you incur the costs to connect to the City sewer and decommission the Well, the Department will recalculate the costs as delayed rather than avoided and will reduce the civil penalty accordingly.

The penalty was determined as 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 and 2. Although you were unable to eliminate discharge of sewage to ground surface during the failure, the Department appreciates the steps you took to minimize the impacts of the discharged sewage by hiring a pump truck to remove sewage from the system when it was failing and has given credit for these steps in determining the amount of civil penalty.

Also included in Section IV is an Order requiring you to discontinue use of and decommission the Well and either: (1) connect to the City of Madras sewer or (2) disconnect all plumbing fixtures from the waste disposal well system and ensure that all plumbing fixtures are connected for discharge only to an approved and properly permitted disposal system that is not failing.

The steps you must follow to request a review of the Department's allegations and determinations in this matter in a contested case hearing are set forth in Section VI of the enclosed Notice and Order and in OAR 340-011-0530. You need to follow the rules to ensure that you do not lose the opportunity to dispute the enclosed Notice and Order.

If you wish to dispute the Notice and Order, you must send a written request for a contested case hearing, including a written response that admits or denies all of the facts alleged in Sections II and III of the enclosed Notice and Order. The written response should also allege all affirmative defenses and explain why they apply in this matter. You will not be allowed to raise these issues at a later time, unless you can show good cause for that failure.

If the Department does not receive a request for a contested case hearing within **twenty calendar days** from the date you receive the enclosed documents, the Department will issue a Default Order and the civil penalty assessment and Order will become final and enforceable. You can fax a request for a contested case hearing to the Department at 503-229-5100 or mail it to the address stated in Section VI of the Notice.

If you wish to discuss this matter with the Department, or believe there are mitigating factors that the Department might not have considered in assessing the civil penalty or issuing the enclosed Order, you may include a request for an informal discussion in the request for a contested case hearing. If you request an informal discussion, you still have the right to a contested case hearing. Copies of referenced rules are enclosed.

I look forward to your cooperation in complying with Oregon environmental law in the future. If, however, any additional violations occur, you may be assessed additional civil penalties.

If you have any questions about the Notice and Order, please contact Leah Koss with the Department's Office of Compliance and Enforcement in Portland at 503-229-6408, or toll-free at 1-800-452-4011, extension 6408.

Sincerely,

/s/

Joni Hammond
Interim Deputy Director

Enclosures

cc: Phillip D. Morsman and Brigitte R. Morsman, 23 NW Depot Road, Madras, OR 97741
Mike Morgan, City Administrator, City of Madras, 71 S.E. D Street, Madras, OR 97741
Bob Baggett, Eastern Region, Bend Office, DEQ
Eric Nigg, Eastern Region, Bend Office, DEQ
Mitch Wolgamott, Eastern Region, Pendleton Office, DEQ
Water Quality Division, HQ, DEQ
Larry Knudsen, Oregon Department of Justice, Portland Office
U. S. Environmental Protection Agency
Jefferson County District Attorney

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION

OF THE STATE OF OREGON

IN THE MATTER OF: PHILLIP DEAN MORSMAN and BRIGITTE RENATE MORSMAN, doing business as TOPS TRAILER PARK, Respondents.	)	NOTICE OF VIOLATION, DEPARTMENT ORDER AND CIVIL PENALTY ASSESSMENT NO. WQ/D-ER-07-186 JEFFERSON COUNTY

I. AUTHORITY

This Notice of Violation, Department Order and Civil Penalty Assessment (Notice and Order) is issued, jointly and severally, to Respondents, Phillip Dean Morsman and Brigitte Renate Morsman, doing business as Tops Trailer Park, by the Department of Environmental Quality (Department) on behalf of the Environmental Quality Commission pursuant to Oregon Revised Statutes (ORS) 468.100, 468.126 through 468.140, and 468B, ORS Chapter 183 and Oregon Administrative Rules (OAR) Chapter 340, Divisions 011, 012, 044 and 071.

II. FINDINGS

1. Respondents are the owners and operators of a mobile home park located at 23 NW Depot Road in Madras, Oregon (the Property) known as Tops Trailer Park (the Facility).

2. In 1999, the Department approved Respondents' registration under Water Pollution Control Facilities General Permit No. 4400 (the Permit). The Permit authorizes Respondents to maintain and operate the waste disposal system, consisting of a septic tank and well (Well), at their Facility in accordance with the terms and conditions of the Permit and with Oregon law.

3. On or about June 18, 2006, the Well on Respondents' Property discharged sewage to the ground surface.

4. Respondents did not report the June 2006 discharge of sewage from the Well on their Property.

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5. On or about October 18, 2006, the Well on Respondents' Property discharged sewage to the ground surface.

6. The sewage discharge on October 18, 2006, was an amount sufficient to flow downslope, into a roadside ditch along Northwest 4th Street, then into a culvert that crossed under the roadway and into a grassy area along a large escarpment which slopes to Hwy. 26.

7. Respondents did not report the October 18, 2006 discharge of sewage from the Well on their Property.

8. On October 18, 2006, Mr. Morsman told Bob Baggett of the Department that in June 2006, he had placed caustic soda into the Well in an attempt to unplug a presumable blockage in the Well.

9. On October 18, 2006, a pump service pumped approximately 1,500 gallons of sewage out of the Well to attempt to mitigate the sewage overflow.

10. On or about October 23, 2006, the Well on Respondents' Property discharged sewage to the ground surface.

11. Respondents did not report the October 23, 2006 discharge of sewage from the Well on their Property to the Department.

12. On or about October 25, 2006, Bob Baggett, Eric Nigg of the Department, and representatives of Jefferson County and the City of Madras met with Respondents to discuss the operation of the Well at Respondents' Property.

13. On October 25, 2007, the Well on Respondents' Property discharged sewage onto the ground surface in an amount sufficient to flow in the manner described in paragraph 6 above, and further into a culvert along Hwy. 26.

14. On October 26, 2007, Mr. Nigg sent Respondents a letter which summarized the meeting from the day before.

15. The October 26, 2007 letter noted the violations of Oregon law including: (1) discharging sewage to the ground surface and (2) continuing use of a waste disposal well after connection to the City sewer is reasonably available.

16. The October 26, 2007 letter also noted the Respondents' agreement to enter into a Mutual Agreement and Order (MAO) with the Department which would require Respondents to connect to the City of Madras sewer at the earliest opportunity or when the City sewer reached Lee Street.

17. Respondents did not enter into the MAO with the Department.

18. On November 7, 2007, the Department issued Pre-Enforcement Notice No. WQ-07-16148 (PEN) to Respondents requesting that Respondents comply with the Permit and Oregon law by connecting their Facility to the City of Madras sewer system and by decommissioning the Well on the Property.

19. As of the date of issuance of this Notice and Order, Respondents have not taken the steps requested in the PEN.

III. VIOLATIONS

Based upon the Findings above, Respondents have violated Oregon's laws as follows:

1. Since at least October 2, 2007 and each and every day since, Respondents have violated Schedule D, Condition 5 of the Permit, ORS 468B.025(2) and OAR 340-044-0015(3)(b), by failing to decommission the Well at their Property and failing to connect to the City of Madras sewer system when it became reasonably available. Specifically, since approximately October 2, 2007, the City of Madras sewer system has been approximately 1,830 feet from Respondents' Property and Respondents have not connected to the city system as required by their Permit and Oregon law. According to OAR 340-012-0053, this is a Class II violation.

2. On or about June 18, 2006, October 18, 2006, October 23, 2006 and October 25, 2006, Respondents violated OAR 340-071-0130(3), adopted pursuant to ORS 454.625, by discharging untreated or partially treated wastewater or septic tank effluent directly or indirectly onto the ground surface. Specifically, Respondents' Well overflowed, discharging, on at least two occasions, a quantity of sewage sufficient to run off of the Property and into a road-side ditch, then into a culvert that crossed under the roadway toward Highway 26. According to OAR 340-012-0060(1)(d), these are Class I violations.

3. In June 2006, Respondents violated Schedule D, Condition 7 of the Permit and OAR 340-044-0017(1), adopted pursuant to ORS 454.625, by taking action to repair a sewage drain hole without a repair permit from the Department. Specifically, Respondents poured "caustic soda" into the Well on their Property without first obtaining a letter permit from the Department. According to OAR 340-012-0053, this is a Class II violation.

4. On or about June 18, 2006 and October 18, 2006, Respondents violated Schedule D, Condition 6 of the Permit and ORS 468B.025(2), by failing to report to the Department the Well failures on their Property within twenty-four (24) hours. Specifically, Respondents did not notify the Department of the failures of the Well which allowed sewage to discharge onto the ground surface and run off of their Property. According to OAR 340-012-0053, these are Class II violations.

IV. DEPARTMENT ORDER

Based upon the foregoing FINDINGS AND VIOLATIONS, Respondents are hereby ORDERED TO:

1. Immediately initiate actions necessary to correct all of the above-cited violations and come into full compliance with Oregon's statutes and regulations.

2. Within ninety (90) days of the date of this Notice and Order, discontinue use of the Well and decommission the Well in accordance with OAR 340-044-0040.

3. Within sixty (60) days of the date of this Notice and Order, either:

a. Connect the Facility to the City of Madras sewerage system (contact for the City is Keith Beddell at 541-410-7025); or

b. Disconnect all plumbing fixtures from the waste disposal well system and ensure that all plumbing fixtures are connected for discharge only to an approved and properly permitted disposal system that is not failing, in compliance with OAR 340-071-0130(9).

4. Within ninety (90) days of the date of this Notice and Order, submit to the Department written documentation which demonstrates Respondents' full compliance with this Notice and Order.

All submittals required by this Department Order must be sent to: **Bob Baggett, Department of Environmental Quality, 300 SE Reed Market Road, Bend, OR 97702-2237.**

V. CIVIL PENALTY ASSESSMENT

The Department imposes civil penalties for the violations cited in Section III, paragraphs 1 and 2 as follows:

Violation	Penalty Amount
1	$193,092
2	$1,750

Respondents' total civil penalty is $194,842. The findings and determination of Respondents' civil penalty, pursuant to OAR 340-012-0045, are attached and incorporated as Exhibit Nos. 1 and 2.

VI. OPPORTUNITY FOR CONTESTED CASE HEARING

Respondents have the right to have a contested case hearing before an administrative law judge regarding the matters contained in this Notice, provided Respondents file a timely written request for a contested case hearing. The Department must receive a written request for a contested case hearing **within twenty (20) calendar days from the date of service of this Notice**. Pursuant to OAR 340-011-0530(4), if Respondents fail to file a timely request for a hearing, the late filing will not be allowed unless the late filing was beyond Respondents' reasonable control.

The request for a hearing must include a written response to this Notice and Order that admits or denies all factual matters alleged in this Notice and Order. In the written response, Respondents must also allege any and all affirmative defenses and explain the reasoning in support of each affirmative defense. The contested case hearing will be limited to those issues raised in this Notice and Order and in Respondents' request for a contested case hearing. Unless Respondents are able to show good cause:

1. Factual matters not denied in a timely manner will be considered admitted;

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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 request for a hearing are denied by the Department unless admitted in subsequent stipulation by the Department.

Send the request for hearing to: **Deborah Nesbit, Oregon Department of Environmental Quality, 811 S.W. 6th Avenue, Portland, Oregon 97204, or via fax at 503-229-5100.** Following the Department's receipt of a request for a contested case hearing, Respondents will be notified of the date, time and place of the contested case hearing.

If Respondents fail to file a timely request for contested case hearing, Respondents may lose the right to a contested case hearing, and the Department may enter a Default Order for the relief sought in this Notice and Order.

Failure to appear at a scheduled contested case hearing may result in an entry of a Default Order.

The Department's case file at the time this Notice and Order was issued will serve as the record for purposes of entering a Default Order.

VII. OPPORTUNITY FOR INFORMAL DISCUSSION

In addition to filing a request for a contested case hearing, Respondents may also request an informal discussion with the Department by including such a request in the request in the request for a contested case hearing. Respondents' request for an informal discussion does not waive Respondent's right to a contested case hearing.

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VIII. PAYMENT OF CIVIL PENALTY

The civil penalty is due and payable ten (10) days after the Order imposing the civil penalty becomes final by operation of law or on appeal. Respondents may pay the penalty before that time. Respondents' check or money order in the amount of $194,842 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.**

December 19, 2007
Date

/s/
Joni Hammond
Interim Deputy Director

EXHIBIT NO. 1

FINDINGS AND DETERMINATION OF RESPONDENT'S CIVIL PENALTY PURSUANT TO OREGON ADMINISTRATIVE RULE (OAR) 340-012-0045

VIOLATION 1: Failing to connect to City of Madras sewer system upon availability to the Property, in violation of Schedule D, Condition 5 of the Permit, ORS 468B.025(2) and OAR 340-044-0015(3)(b).

CLASSIFICATION: This is a Class II violation pursuant to OAR 340-012-0053, because there is no specified classification for this violation.

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 $625 for a Class II, moderate magnitude violation in the matrix listed in OAR 340-012-0140(4)(b)(B)(ii) and applicable pursuant to OAR 340-012-0140(4)(a)(E)(v).

"P" is whether Respondent has any prior significant actions, as defined in OAR 340-012-0030(16), in the same media as the violation at issue that occurred at a facility owned or operated by the same Respondent, and receives a value of 0 according to OAR 340-012-0145(2)(a)(A), because Respondents have no prior significant actions.

"H" is Respondent's history of correcting prior significant action(s) and receives a value of 0 according to OAR 340-012-0145(3)(a)(C), because Respondents have no prior significant actions.

"O" is whether the violation was repeated or ongoing and receives a value of 4 according to OAR 340-012-0145(4)(a)(D), because the violation has existed for more than 28 days.

"M" is the mental state of the Respondent and receives a value of 10 according to OAR 340-012-0145(5)(a)(D), because Respondents acted flagrantly. The Department sent Respondents a Notice of Noncompliance (NON) on April 26, 1999, which informed Respondents of the Department's intent to phase out waste disposal wells, such as the Well Respondents operate on their Property, and notifying them that in the interim, Respondents would need to obtain a WPCF General Permit 4400. Respondents registered to the WPCF General Permit 4400 in 1999, and as permittees, Respondents are responsible for knowing and complying with all of the conditions of the Permit. On October 25, 2006, the Department informed Respondents of their continued violation of failing to connect to the City of Madras sewer since it was reasonably available to their Property. Respondents acknowledged this and agreed to enter into a Mutual Agreement and Order (MAO) which would require that Respondents connect to City sewer when it reached Lee Street, or approximately 1,800 feet from Respondents' Property. The Department sent a letter to Respondents on October 26, 2006 again

summarizing the violations of Oregon law, including Respondents' failure to connect to City sewer and noting Respondents' agreement to enter into a MAO which would require that Respondents connect to City sewer. Respondents have actual knowledge that their continued failure to connect to the City sewer is a violation of Oregon law and of their Permit, and in refusing to connect they have consciously set out to commit this violation.

"C" is Respondent's efforts to correct the violation and receives a value of 2 according to OAR 340-012-0145(6)(a)(E), because Respondents did not address the violation as described in paragraphs (6)(a)(A) through (6)(a)(C) and the facts do not support a finding under paragraph (6)(a)(D). As of the date of this Notice and Order, Respondents have not connected to City of Madras sewer as required by Oregon law and the General Permit 4400.

"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 $191,467. This is the amount Respondent gained by avoiding spending $272,455 to connect the Tops Trailer Park to the City of Madras sewer system. 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
= $625 + [(0.1 x $625) x (0 + 0 + 4 + 10 + 2)] + $191,467
= $625 + [($62.50) x (16)] + $191,467
= $625 + $1,000 + $191,467
= $193,092

EXHIBIT NO. 2

FINDINGS AND DETERMINATION OF RESPONDENT'S CIVIL PENALTY
PURSUANT TO OREGON ADMINISTRATIVE RULE (OAR) 340-012-0045

VIOLATION 2: Discharging partially treated or untreated effluent directly or indirectly onto the ground surface, in violation of OAR 340-071-0130(3).

CLASSIFICATION: This is a Class I violation pursuant to OAR 340-012-0060(1)(d).

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 $1,2500 for a Class I, moderate magnitude violation in the matrix listed in OAR 340-012-0140(4)(b)(A)(i) and made applicable pursuant to OAR 340-012-0140(4)(a)(F).

"P" is whether Respondent has any prior significant actions in the same media as the violation at issue that occurred at a facility owned or operated by the same Respondent, and receives a value of 0 according to OAR 340-012-0145(2)(a)(A), because Respondents have no prior significant actions.

"H" is Respondent's history of correcting prior significant action(s) and receives a value of 0 according to OAR 340-012-0145(3)(a)(C), because Respondents have no prior significant actions.

"O" is whether the violation was repeated or ongoing and receives a value of 2 according to OAR 340-012-0145(4)(a)(B), because the violation has occurred on at least four (4) occasions.

"M" is the mental state of the Respondent and receives a value of 2 according to OAR 340-012-0145(5)(a)(B), because Respondents reasonably should have known that the conduct would be a violation. Respondents have been registered to WPCF General Permit 4400 since 1999 and as permittees, Respondents have at least constructive knowledge of the requirements of their Permit and their failure to comply with the Permit was negligent. The first page of the Permit states that "Discharge of untreated or partially treated sewage or septic tank effluent directly or indirectly onto the ground surface…constitutes a public health hazard and is prohibited." Respondents reasonably should have known that discharge of sewage from the Well on their Property would be a violation.

"C" is Respondent's efforts to correct the violation and receives a value of 0 according to OAR 340-012-0145(6)(a)(B), 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 the Department has insufficient information on which to base an estimate. "EB" is 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)] + $0
= $1,250 + [($125) x (4)] + $0
= $1,250 + $500 + $0
= $1,750

State of Oregon
Department of Environmental Quality Memorandum

Date: May 22, 2009

To: Environmental Quality Commission

From: Dick Pedersen, Director

Subject: Agenda Item F, Action Item: Waiver of the Minimum Design Criteria Dilution Requirement for the City of Coburg
June 18 -19, 2009 EQC Meeting

Why this is Important

The city of Coburg is proposing to construct and operate a wastewater treatment plant serving the city. The new facility will provide a very high level of treatment, but it will not be able to meet the Willamette Basin minimum design criteria for dilution within the receiving stream. Without a waiver of the dilution requirement, the city of Coburg would have to construct a non-discharging system at an estimated additional cost between $10 and $14 million.

DEQ Recommendation and EQC Motion

The Department of Environmental Quality recommends that the Environmental Quality Commission approve the city of Coburg's request to waive the dilution rule.

Background

The city of Coburg is located in the Southern Willamette Valley Groundwater Management Area. Much of the groundwater in the area has levels of nitrate that exceed the levels needed to protect human health. Homes and businesses in Coburg currently dispose of their wastewater using septic tanks and drainfields that contribute approximately 28,000 pounds of nitrogen to the groundwater per year. Collection, treatment and proper disposal of wastewater in Coburg is expected to improve groundwater quality in the area.

Since 1999, the city has evaluated several alternatives in an effort to meet water quality standards, the Willamette total maximum daily load requirements for temperature, bacteria and mercury and minimum design criteria, including the dilution rule. These alternatives included discharge from the proposed plant to the Willamette or McKenzie Rivers and transferring raw wastewater to the Metropolitan Wastewater Management Commission facility in Eugene. The city could not obtain legal access to the Willamette River and the National Marine Fisheries Service indicated they would oppose any new discharges to the McKenzie River. Connecting to Eugene facility was not an economical approach due to very high system development charges and monthly operating charges plus Coburg's capital costs. Neither of these alternatives was feasible.

Environmental studies and technical analysis show that dissolved oxygen and all other standards will be protected in the East Irrigation Canal, Muddy Creek and Little Muddy Creek without the application of the dilution rule requirements. Specifically, DEQ recommends the dilution rule be waived because no violations of water quality standards will occur and there will be no negative impacts on beneficial use.

The proposed treatment system will produce Class A recycled water for reuse during the irrigation season, mostly June through September. Discharge will mostly occur during the wet weather season, from October through May, but it could occur in any month. Eliminating discharge during all seasons would require a large effluent storage lagoon and obtaining sufficient agricultural land to irrigate the entire recycled water volume plus rainfall accumulation on the large storage lagoon. The estimated additional cost for a non-discharge system is between $10 and $14 million. This represents a significant cost increase over the $24.4 million cost of the project as currently envisioned for this city with a population of just over 1000. Proceeding with a non-discharging approach would require additional funding which could delay or jeopardize the entire project.

Key Issues

The Dilution Rule

The dilution rule was established in the 1970s as a part of the minimum design criteria for new and upgraded wastewater treatment facilities. As a design criterion, it is applied to new facilities when they are proposed. The rule states, that:

> "Effluent BOD concentration in mg/l, divided by the dilution factor (ratio of receiving stream flow to effluent flow) may not exceed one unless otherwise approved by the Commission."

The intent of this rule is to assure that receiving stream flows are large enough to adequately dilute oxygen-demanding pollutants from treated sewage. It is based on the presumption that a maximum increase in the instream biochemical oxygen demand concentration of one mg/L is protective of water quality. While water quality can be protected at higher instream biochemical oxygen demand concentrations, the rule is an effective initial screening tool where water quality information is limited. When more information is available, an acceptable biochemical oxygen demand level can be determined through modeling and subsequent monitoring.

Compliance with the Dilution Rule
During the irrigation season, the East Irrigation Canal normally flows at five cubic feet per second until the end of September. However, after the irrigation season ends in September and before the winter rains begin in October or November, the East Irrigation Canal has periods with very little flow. Coburg's discharged flow would be very large in comparison to the East Irrigation Canal flow during these periods. It is not possible to produce effluent carbonaceous biochemical oxygen demand concentrations low enough to comply with the dilution rule. The city's only alternative would be to hold effluent during most of the non-irrigation season of October through May.

Water Quality Review
DEQ water quality modeling indicates that the water quality criteria for dissolved oxygen will be met year-round if the effluent carbonaceous biochemical oxygen demand and ammonia concentrations comply with the permit limits. The wastewater facilities will be able to reliably produce this effluent quality. Therefore, the application of the dilution rule is unnecessary to protect water quality.

Summary of Public Comments

The proposed permit was placed on public notice on February 23, 2009. A public hearing was held March 26, 2009 and DEQ modified the permit based on the comments received. A second public notice period was initiated and a new public hearing was held May 20, 2009. The public comment period ended May 26, 2009. A summary of public comments will be provided prior at the EQC meeting.

EQC Action Alternatives

The EQC could approve the request for a waiver of the dilution rule for the city of Coburg.

The EQC could disapprove the waiver of the dilution rule. Coburg's only option for wastewater treatment would be to construct a non-discharging system at an estimated additional cost between $10 and $14 million. This would likely result in the inability of the city to construct and operate new wastewater facilities and the continued contamination of the local groundwater.

Attachments

A. Draft Order for Waiver Modification
B. NPDES Permit Notice of Public Hearing
C. Draft NPDES Permit Evaluation Report with Attachments
D. Draft NPDES Permit

Available Upon Request

- Oregon Administrative Rules
- Willamette TMDL Documents

Approved:

Section: Neil Mullane for John Ruscigno

Division: Neil Mullane for Keith Anderson

Report Prepared By: Mark Hamlin
Phone: (503) 378-5319

Before the Environmental Quality Commission of the State of Oregon

In the Matter of City of Coburg Wastewater Treatment Facility Request for Modification of Waiver of 340-041-0007 (16)(a)(A)(i) [Dilution Rule]	)	ORDER MODIFYING WAIVER OF OAR OAR 340-041-0007 (16)(a)(A)(i)

FINDINGS

DEQ has made the following findings:

1. The city of Coburg proposes to construct, own and operate a wastewater treatment facility in Lane County, Oregon which will discharge to the East Irrigation Canal.
2. The East Irrigation Canal has little if any flow during various times of the year.
3. The city of Coburg will perform spray irrigation during the summer months although some discharge may be necessary on a year-round basis.
4. The proposed discharge has been evaluated for potential carbonaceous biochemical oxygen demand and ammonia nitrogen impacts during critical flow conditions and the discharge will continuously comply with water quality standards for dissolved oxygen. This will not, however, meet the minimum design criteria of OAR 340-041-0007 (16)(a)(A)(i) [Dilution Rule].
5. The city of Coburg has requested a waiver of the dilution rule.
6. DEQ has reviewed the city's request, finds that beneficial uses will be protected, and supports the request for waiver.

ORDER

A waiver of OAR 340-041-0007 (16)(a)(A)(i) ["Dilution Rule"] for the city of Coburg's wastewater treatment facility is hereby granted.

Dated this _____ day of _____.

On behalf of the commission

_____
Dick Pedersen, Director
Department of Environmental Quality

Notice of Public Hearing – May 20, 2009

Proposed Issuance of NPDES Permit for Coburg Wastewater Reclamation Facility

State of Oregon
Department of
Environmental
Quality

The purpose of this notice is to invite you to make oral comments on this proposed National Pollutant Discharge Elimination System (NPDES) permit issuance at a public hearing. You may also comment in writing. The permit documents have been revised since the last public hearing with new information regarding the receiving stream.

DEQ's Role:
The Oregon Department of Environmental Quality (DEQ) is responsible for protecting and enhancing Oregon's water and air quality, for cleaning up spills and releases of hazardous materials, and for managing the proper disposal of hazardous and solid wastes. One way DEQ does this is by requiring permits for certain activities. DEQ issues permits to regulate the type and amount of treated municipal wastewater produced at a regulated facility.

Hearing details:
May 20, 2009

Information session begins at 06:30 p.m. with formal hearing to follow at 7:00 p.m.:
Coburg Fire Station
91232 N. Coburg Road
Coburg, Oregon

Comments due:
Written comments due: 5 p.m., May 25, 2009

Where can I send my comments?
Carrie Everett
503-378-5055 or 800-349-7677
750 Front Street, Suite 120
Salem, OR 97301
Fax 503-373-7944
everett.carrie@deq.state.or.us

Where can I get technical information?
Mark E. Hamlin
503-378-5319 or 800-349-7677
750 Front Street, Suite 120
Salem, OR 97301
Fax 503-373-7944
hamlin.mark@deq.state.or.us

Where can I get background information?
Information about this project is viewable online by clicking the following link(s):

- Coburg Permit PDF
- Coburg Permit Evaluation PDF
- Coburg Evaluation Appendix PDF

You can review hard copies of the draft permit and related documents at the nearest DEQ office in Salem or in the Eugene Office. For a review appointment in Salem, call Carrie Everett at (503) 378-5055. For a review appointment in Eugene, call Paul Kennedy at (541) 687-7439. The Eugene office is located at 1102 Lincoln St., Ste. 210, Eugene, OR 97401 until May 14, 2009. Starting May 18, 2009, the Eugene office will be located at 165 East 7th Avenue, Eugene, OR 97401.

What is proposed?
DEQ proposes to issue a permit for the Coburg Wastewater Reclaimation Facility and is inviting public comment on the proposed permitting action. During the comment period the public is invited to make comments related to specific conditions within the proposed permit.

Since this is a new permit, all conditions including limits, monitoring requirements and general conditions are new.

Permit expiration
Oregon law requires facilities with a NPDES permit to renew that permit every 5 years. Upon issuance, this permit will be effective for 5 years, expiring on May 31, 2014.

Who is the applicant?
City of Coburg
P.O. Box 8316
Coburg, OR 97408

Where is the facility located?
North Coburg Road

Who might have an interest?
People who work, live, and recreate in the area.

Western Region
Water Quality
750 Front St., Suite 120
Salem, OR 97301
Phone: (503) 378-5319
(800) 349-7677
Fax: (503) 373-7944
Contact: Mark E. Hamlin
E-mail:
hamlin.mark@deq.state.or.us

www.oregon.gov/DEQ

If you received a hard copy of this notice in the mail, please consider receiving updates via e-mail instead. Send your request to:
subscriptions@deq.state.or.us

Please include your full name, e-mail address and mailing address so that we can purge you from our print mailing list, thus saving trees and taxpayer dollars.

Notice Issued: 2/23/2009
By: Carrie Everett

What does the Coburg Wastewater Reclaimation Facility do that affects water quality?
The facility will collect, treat and discharge municipal wastewater to the East Irrigation Canal which is tributary to Muddy Creek and Little Muddy Creek. The canal is included in the Total Maximum Daily Load (TMDL) for temperature that has been issued for the Willamette Basin. The proposed permit complies with TMDL requirements for temperature. The TMDL restricts the quantity of treated wastewater that can be discharged during the summer.

The proposed discharge has been evaluated for compliance with the dissolved oxygen standard and toxicity criteria for ammonia and chlorine. The Department is not aware of any other pollutant parameter in this discharge that could cause a water quality standard violation.

What legal requirements apply?
The NPDES permit is required in accordance with Oregon Revised Statute 468B.050 for discharge of wastewater to waters of the state and the federal Clean Water Act in order to discharge treated wastewater to public waters. Oregon Revised Statutes (ORS) 468B and Oregon Administrative Rules (OAR) Chapter 340 Division 45 give DEQ the authority to issue permits.

How does DEQ determine what requirements go in the permit?
Various federal and state regulations apply to a facility depending on the type of industry, the type and amount of pollutants discharged and the location of the facility. All applicable regulations must be contained in the permit, including the appropriate recordkeeping, monitoring, and reporting requirements to ensure compliance with these rules.

The Department used the appropriate Oregon Administrative Rules (OAR) and standard language for this permit. A Reasonable Potential Analysis and permit limit calculations were performed using statistical methods. The Department uses EPA guidance and best professional judgment in choosing model inputs, critical case scenarios and statistical factors.

An antidegradation review was conducted in order to determine whether the Department could issue a permit for discharge to waters of the state. All evaluations showed that the discharge meets the requirements and/or exceptions of the applicable regulations.

What are the known health effects or environmental impacts of the permitted discharge by the Coburg Wastewater Reclaimation Facility?
When operated in accordance with the NPDES permit, the wastewater treatment facility discharge will not have any significant health effects or environmental impacts.

Bacteria and other human pathogens may be present and could impact public health. However treatment processes including disinfection are performed prior to discharge. The permit prohibits the discharge of raw sewage overflows or bypassing.

Ammonia and chorine are found in treated domestic wastewater and can be toxic to aquatic organisms. Most of the ammonia is removed in the treatment process and the effluent is dechlorinated prior to discharge. The remaining ammonia and chlorine are required to meet instream water quality standards at the point of discharge.

The impacts to the environment (mostly dissolved oxygen depletion and solids deposition) are within acceptable limits.

How are the permitted substances measured?
Schedule B of the permit requires monitoring of various influent and effluent parameters at specified minimum frequencies. Monitoring must be performed in accordance with federal regulations (40 CFR Part 136) unless otherwise specified in the permit.

Compliance history:
The City of Coburg does not currently have a permit and therefore does not have any compliance history.

What are the special conditions of this permit?
The proposed permit establishes technology based limits for CBOD, TSS, pH and E. coli bacteria. In order to protect the environment, water quality based limits on chlorine, ammonia, thermal load and dissolved oxygen are also proposed.

What other DEQ permits are required?

A 1200C General NPDES stormwater permit will likely be needed during construction.

What similar activities take place in the vicinity of the facility?
Most cities in the area operate wastewater treatment facilities. No other facilities of similar size and sophisticated type (membrane bioreactor) are nearby.

What other information about this company is related to this permit?
The City of Coburg holds no other water quality permits.

What happens after the hearing?
After the comment period closes, DEQ will consider and provide responses to all comments received. DEQ may modify provisions in the proposed permit, but the permit writers can only modify conditions of the permit in accordance with the rules and statutes under the authority of DEQ. Participation in the rulemaking or the legislative process is the only way to change the rules or statutes. Ultimately, if a facility meets all legal requirements, DEQ will issue the facility's NPDES permit following EPA review.

Accessibility information
DEQ is committed to accommodating people with disabilities at our hearings. Please notify DEQ of any special physical or language accommodations or if you need information in large print, Braille or another format. To make these arrangements, contact DEQ Communications & Outreach (503) 229-5696 or toll free in Oregon at (800) 452-4011; fax to 503-229-6762; or e-mail to deqinfo@deq.state.or.us .

People with hearing impairments may call DEQ's TTY number, (503) 378-3684.

State of Oregon
Department of
Environmental
Quality

National Pollutant Discharge Elimination System
PERMIT EVALUATION AND FACT SHEET
April 23, 2008

Oregon Department of Environmental Quality
Western Region
750 Front St NE, Suite 120
Salem OR 97301
(503) 378-8240

Permittee:	City of Coburg P.O. Box 8316 Coburg, OR 97408 File Number: 115851
Current Permit:	NPDES Permit Number: None EPA Reference Number: None Issue Date: None Expiration Date: None
Source Information:	Coburg Wastewater Reclamation Facility North Coburg Road Coburg, Oregon Latitude 44° 9' 8" North, Longitude 123° 3' 37" West
Source Contact:	Craig Gibons, Finance Director Phone: 541-682-7850
Proposed Action:	NPDES Minor Domestic Permit Issuance Application Number: 977678 Date Received: June 23, 2006; Completed 1/28/08
Permit Writer:	Mark E. Hamlin Phone: 503-378-5319

INTRODUCTION

The City of Coburg (City) proposes to construct and operate a Wastewater Reclamation Facility. The secondary wastewater treatment facility will be located just north of Coburg, Oregon **(see Figure #1)** on a 50 acre site owned by the City. Municipal wastewater will be treated for agricultural reuse and seasonally intermittent discharged to a canal locally known as East Irrigation Canal (EIC) in accordance with a new National Pollutant Discharge Elimination System (NPDES) Permit to be issued by the Oregon Department of Environmental Quality (Department or DEQ).

During the non-irrigation season, the EIC joins Muddy Creek approximately 2,300 feet north of the treatment plant's discharge point at river mile 50.7. During the irrigation season, the EIC crosses under Muddy Creek and I-5 and continues for several miles. It eventually becomes Little Muddy Creek which joins with Putnam Creek and numerous creeks before it joins Muddy Creek at river mile 27.7.

The Department received a NPDES permit application on June 23, 2006. A NPDES permit is necessary to discharge to state waters pursuant to provisions of Oregon Revised Statutes (ORS) 468B.050 and the Federal Clean Water Act. The Department proposes to issue the permit. This permit evaluation report describes the basis and methodology used in developing the permit.

This permit is a joint federal and state permit and subject to federal and state regulations. The Clean Water Act, the Code of Federal Regulations, and numerous guidelines of the Environmental Protection Agency provide the federal permit requirements. The Oregon Revised Statutes, Oregon Administrative Rules, and policies and guidelines of the Department of Environmental Quality provide the state permitting requirements.

FACILITY DESCRIPTION

Wastewater services have not previously been provided in the City of Coburg. The city is currently served by onsite treatment and disposal systems. The proposed treatment facility will serve most of the City at start up of facilities and the entire City by the design year. Service will not be provided to customers outside the urban growth boundary (UGB). The facilities **(see Figure #2)** consist of septic tanks, septic tank effluent pumping (STEP) collection system, fine screening, membrane bioreactor (MBR) secondary treatment, chlorine disinfection, bisulfite dechlorination, aerobic sludge digestion and facultative sludge storage lagoon. Treated wastewater will be discharged to the EIC or reused as recycled water.

The design average dry weather flow (ADWF) of the treatment facility is 0.44 (MGD). The design average wet weather flow (AWWF) of the treatment facility is 0.5 MGD. The design peak hour flow is 0.92 MGD. The STEP system wastewater design average biochemical oxygen demand (BOD_5) and total suspended solids (TSS) loading is 930 and 500 pounds per day respectively.

The collection system starts at conventional septic tanks located at each home and business. The septic tank effluent will be pumped to the treatment facility through the STEP collection system. At the treatment facility, the influent flow will be measured with a 6 inch magnetic flow meter. There will be two fine (2 mm) continuously cleaned screens (1.6 MGD capacity each) with a bypass.

Secondary treatment will occur in two bioreactor aeration basins, designed to nitrify during all seasons, followed by filtration in six membrane tanks (240 membrane modules). The permeate will be disinfected with chlorine. Treated wastewater that is discharged to the EIC will be dechlorinated. The recycled

water will be treated to Class A standards and reused on agricultural land and landscaping. The effluent flow and recycled water flows will also be measured by magnetic flow meters.

The treatment facility will include an aerobic digester for stabilizing waste secondary solids. The solids will be aerobically digested for at least 60 days and then transferred to a facultative sludge lagoon (FSL) for storage. When the FSL needs to be cleaned, it is anticipated that the biosolids will be land applied at agronomic rates on a DEQ approved agricultural site. Land application is not allowed without additional information and public notice.

The outfall to the EIC will be 1,400 feet of 14" PVC or HDPE pipe discharging to the canal immediately east of the treatment plant. The irrigation canal flows north to join Muddy Creek at river mile 50.7. During the irrigation season, the EIC crosses under Muddy Creek and I-5 and becomes Little Muddy Creek after several miles. The discharge will be a shoreline cascade to the EIC. Discharge will be allowed year-round although much of the treated water will be recycled during the summer.

Recycled water can be irrigated in accordance with a Department approved Recycled Water Use Plan. It is anticipated that most irrigation will likely occur during the summer period when discharge to surface waters will be more limited. The recycled water system consists of pumps, a storage basin, and irrigation piping. The Class A recycled water may be used in various locations for various purposes in conformance with the recycled water rules.

The facility will be unmanned at night, but will have 24 hour alarm telemetry through the treatment plant. The facility will have a standby electric generator at the treatment plant.

Operational difficulties could occur if the individual septic tanks are not properly maintained. The proposed permit will include preventive maintenance practices for septic tanks. The facility will not have a septage receiving station. The proposed permit will prohibit the acceptance of septage without written authorization. Septage will be handled as is currently done by hauling to the Eugene-Springfield wastewater treatment plant.

Biosolids Management and Utilization

All waste sludge must be managed in accordance with a Department approved Biosolids Management Plan to ensure compliance with the federal biosolids regulations (40 CFR Part 503) and the state rules (OAR 340-050). The permittee does not have an approved biosolids management plan. If the permittee must remove biosolids from the FSL during this permit term, a biosolids management plan would have to be developed and submitted to the Department. The Department could approve the biosolids management plan only after completion of a chance to comment period for the public.

Inflow and Infiltration (I/I)

Since all flow will be pumped in a pressurized collection system, there should be little if any inflow and infiltration (I/I). However, the permit will require the City to have a program to identify and reduce inflow and infiltration into the sewage collection system and submit an annual report on I/I reductions to the Department by August 1st each year.

Industrial Pretreatment

A formal industrial pretreatment program is not required for this source.

Groundwater Issues

The City of Coburg is located in the Southern Willamette Valley Groundwater Management Area. Much of the groundwater in the area has levels of nitrate that exceed the levels needed to protect human health. Currently, homes and businesses in Coburg dispose of their wastewater using septic tanks and drainfields that contribute nitrates to the groundwater. Currently, homes and businesses in Coburg contribute approximately 28,000 pounds of nitrogen per year to the groundwater. If they continued to dispose of the wastewater through drainfields the nitrogen load would essentially double. Collection, treatment and proper disposal of wastewater in Coburg is expected to improve groundwater quality in the area.

The treatment plant will be constructed of impervious structures. The sludge storage lagoon will be lined with a membrane liner. Neither the other treatment process nor the discharge to surface waters is anticipated to cause groundwater impacts.

Compliance with the Recycled Water Use Plan will ensure that the irrigation of recycled water will be performed at agronomic rates (both hydraulic and nutrient) or less. Little if any nitrate should be carried through the soil column to the groundwater before it is utilized by the crop. Schedule A of the proposed permit prohibits adverse impacts to groundwater. A condition in Schedule D states that no groundwater evaluations will be required during this permit cycle.

Stormwater Issues

General NPDES permits for storm water are required for facilities with a design flow of greater than 1MGD if storm water is collected and discharged from the plant site. This facility's design flow is less than 1 MGD. Therefore, no storm water permit is necessary.

Outfalls

The NPDES Permit allows the treatment facility to discharge treated and disinfected effluent to the EIC just west of the plant. Outfall 001 will be located at approximately Latitude 44.152° North, Longitude 123.056° West. The outfall is a shoreline cascade designed to provide aeration and be aesthetically and environmentally pleasing.

The proposed permit identifies Outfall 002 for the irrigation of Class A recycled water. All recycled water utilization must comply with the requirements of this permit, the recycled water use rules (OAR 340-055) and the approved Recycled Water Use Plan. The permittee does not currently have an approved Recycled Water Use Plan. No recycled water may be distributed until the Recycled Water Use Plan has been approved by the Department.

RECEIVING STREAM

Hydrologic Characteristics

Coburg is proposing to discharge highly treated wastewater into the East Irrigation Canal (EIC). The EIC crosses Coburg's wastewater site and joins Muddy Creek immediately to the north. The EIC is used by the Muddy Creek Irrigation Project (MCIP) in late spring (June 1) through summer (October 1) to convey irrigation water. During that time, the EIC crosses under Muddy Creek and I-5 and continues for several miles. For much of the year, there is little flow in Muddy Creek upstream from the confluence with the EIC and water quality is generally poor. Water quality tends to be much better after MCIP water enters Muddy Creek.

Irrigation water is pumped from the McKenzie River by the MCIP. During the irrigation season, approximately 5 cubic feet per second (cfs) of water is consistently running through the EIC. Approximately 25 cfs of irrigation water passes through the West Irrigation Canal. Once both canals join Muddy Creek downstream of river mile 50 the irrigation water flow in Muddy Creek is about 30 cfs. Irrigation flows typically cease in late September or early October prior to the fall rains.

The EIC joins or crosses Muddy Creek downstream from the I-5 Bridge (approximately 2,300 feet north of the treatment plant's discharge point). Flow from Muddy Creek or Little Muddy Creek ultimately merges with the Willamette River near Corvallis. The EIC joins Muddy Creek at river mile 50.7 while Little Muddy Creek joins Muddy Creek at river mile 27.7.

In the summer, Muddy Creek receives little flow upstream of the I-5 Bridge. In the fall, spring, and winter, when there is no irrigation diversion, Muddy Creek flow is primarily runoff from Coburg and the surrounding hills and groundwater entering the stream. Flows increase dramatically following winter storms.

There is no USGS gage on the Muddy Creek system. According to the USGS StreamStats tool, Muddy Creek has a drainage area of 12.1 square miles at the point that the canal enters the creek. Little Muddy Creek has a drainage area of 6.8 square miles at the point where the Little Muddy Creek joins with Putnam Creek.

USGS gage 14172000 is located at Holley, Oregon on the Calapooia River just north of the subject area and has a drainage area of 103 square miles. None of the drainage areas are unregulated by dams. USGS gage 14172000 has a drainage area 8.5 times larger than the drainage area of Muddy Creek where the EIC joins it. USGS gage 14172000 has a 7Q10 flow of 19.1 cfs. Therefore, if irrigation flow is not present, critical low river flows in Muddy Creek are expected to be approximately 2.2 cfs (19.1 cfs divided by 8.5).

The USGS StreamStats tool was also used to evaluate whether the discharge can cause increased flooding in Muddy Creek during high flow events. The 20 year design flow of 0.44 MGD (0.68 cfs) was compared to various flood scenarios. The percent increase in flow that will be caused by the discharge is insignificant.

Statistic	Flow (ft^3/s)	% Increase
2 Year Flood	543	0.125
5 Year Flood	794	0.086
10 Year Flood	966	0.070
25 Year Flood	1190	0.057
50 Year Flood	1350	0.050
100 Year Flood	1520	0.045
500 Year Flood	1910	0.036

While the water quality monitoring was being performed on Muddy Creek at Wilkins Road, a stream flow of about 176 cfs was measured following a rainy period. This flow was not close to a flood condition.

Flooding should not be an issue in the Little Muddy Creek watershed during the irrigation season.

Mixing Zone Analysis

The Department is not proposing a mixing zone for this discharge.

Receiving Stream Water Quality

Coburg's discharge will be to an irrigation canal locally known as the East Irrigation Canal (EIC). The EIC discharges to Muddy Creek or Little Muddy Creek. The discharge is within the Willamette basin and Upper Willamette sub-basin. The designated beneficial uses of Muddy Creek and Little Muddy Creek are: public and private domestic water supply, industrial water supply, irrigation, livestock watering, fish and aquatic life (including salmonid rearing and migration), wildlife and hunting, fishing, boating, water contact recreation, aesthetic quality and hydro power. Salmon and steelhead spawning is not a designated use of either creek. The water quality standards for the Willamette Basin (OAR 340-041) were developed to protect the beneficial uses of the basin. These beneficial uses and standards also apply to the irrigation canal. The proposed permit must be protective of all water quality standards and beneficial uses.

The Department has not evaluated the canal for the violations of water quality standards but it is possible the EIC violates the same water quality parameters as the lower McKenzie River. The water in the EIC comes from the lower McKenzie River. The lower McKenzie River is included on the Department's List of Water Quality Limited Water Bodies (also called the 303(d) List) for violations of core cold water temperature criteria (16°C) during the summer and the salmonid spawning criteria (13°C) during portions of the spawning season (September 1 through June 15). Neither of these criteria apply to the EIC (see below under *Temperature Issues*).

Both creeks are included on the 303(d) List for violations of the temperature standard (salmonid rearing and migration). The Willamette Total Maximum Daily Load (TMDL) for temperature was issued September 21, 2006. The TMDL specifies the methodology for determining whether or not a discharger to a tributary stream needs a thermal limit and, if so, how to calculate the limit. The proposed discharge must be evaluated for potential impacts on the water quality criteria violations for temperature in the Willamette Basin.

Kennedy/Jenks Consultants performed some water quality monitoring and flow estimates of the EIC, the West Irrigation Canal and Muddy Creek **(see Attachment #1)** for the City of Coburg. In general, water quality in Muddy Creek and the EIC is improved when irrigation water is flowing through the system.

Temperature Issues

Water temperature affects the biological cycles of aquatic species and is a critical factor in maintaining and restoring healthy salmonid populations throughout the state. It is the policy of the Environmental Quality Commission (EQC) to protect aquatic ecosystems from adverse temperature changes caused by anthropogenic activities. The purpose of the temperature criteria listed in OAR 340-041-0028 is to protect designated beneficial uses that are temperature sensitive, including salmonids in waters of the State.

The Department utilizes Fish Use Designation maps and Salmon and Steelhead Spawning Use Designations maps to identify applicable temperature criteria for each basin. The Willamette Basin maps are contained in OAR 340-041, Figures 340A and 340B, respectively. According to the approved use designation maps, salmon and trout rearing and migration is the designated use of both creeks year round with an applicable numeric temperature criterion of 18 °C. Salmon and steelhead spawning is not a designated use of either creek.

The Willamette Total Maximum Daily Load (TMDL) was issued by the Department on September 21, 2006, and approved by the EPA on September 26, 2009. The 303(d) List for 2004/2006 indicates the Willamette River is water quality limited for temperature from April 1 through October 31. The City of Coburg proposes to discharge during the TMDL period.

The Willamette TMDL included Waste Load Allocations (WLA) for discharges and proposed discharges to tributaries in the Willamette River Sub-basins. Therefore, in accordance with the Willamette Sub-basin TMDL Waste Load Allocations, sources that discharge or propose to discharge effluent warmer than ambient temperatures and applicable biologically-based criteria must be evaluated for potential to contribute to exceedances of numeric criteria. Facilities found to have no reasonable potential to warm the receiving water do not require a wasteload allocation and are allowed to discharge within their current or proposed permit. The assessment was conducted in accordance with the Sub-basin TMDL Waste Load Allocations by using a flow chart process contained in the TMDL as follows:

> **Does the point source discharge warm the river less than 0.3 °C above numeric criterion given 25% of 7Q10 flow? If yes, then the source can be assigned an Allocation based on 0.3 °C and 25% of 7Q10 low flow or the Department can make a determination of no reasonable potential for temperature increase and the source may discharge without a permit limit.**

The City of Coburg's potential effluent temperature impacts were assessed for the discharge period during April 1 through October 31. The effluent temperature is expected to exceed 18°C during parts of the summer. While 5 cfs of dilution is expected for much of the summer, there may be periods where little if any dilution is available. Therefore, the City of Coburg discharge has the potential for temperature impacts and thermal load limits are proposed. The Excess Thermal Load Limit (ETLL) is a formula that is based on the allowable temperature increase (0.3°C) and 25 percent of the stream flow. The formula is:

$$ETLL=\left(Q_E \text{ MGD}+\frac{(Q_R \text{ cfs}*25\%)}{1.547 \text{ cfs/MGD}}\right)*0.3°C*1\text{cal/g°C}*1\text{g/cm}^3*3785 \text{ m}^3/\text{MGD}*10^6 \text{ cm}^3/\text{m}^3 *1 \text{ Kcal}/10^3 \text{ cal}$$

Where: Q_E = rolling 7-day average effluent flow in MGD
Q_R = rolling 7-day average East Irrigation Canal flow in cfs

The ETLL is expressed in Million Kcals/day. The formula can be simplified to:

$$ETLL = (Q_E + (Q_R / 6.188)) * 0.3 * 3.785$$

The thermal load limits apply during the Willamette TMDL period (April 1 through October 31). When discharging within these limits, the facility will have no reasonable potential to warm the receiving water. During the time the effluent temperature is over 18°C, most if not all the treatment wastewater will be reused as recycled water **(see Figure #3)**. Therefore, the City will be able to comply with these limits. If necessary, the City may be able to use cold groundwater to cool the effluent prior to discharge. The groundwater would have to be added after compliance with all technology based effluent limits is demonstrated.

The Department also evaluated the proposed facilities ability to comply with the temperature standard during November 1 through March 31. The effluent may not warm the receiving stream to 18°C or more. According to monitoring data and estimates based on other facilities, both the effluent and receiving stream will be well under 18°C from November 1 through March 31 **(see Figure #4)**. There is no

reasonable potential for the effluent to cause or contribute to a violation of the temperature standard during the non-TMDL period and no permit limit is needed.

Finally, the Department has also determined that the effluent discharge is in accordance with Thermal Plume Limitations found in OAR 340-041-0053 (2)(d). Discharges must be regulated so as to prevent or minimize the following adverse effects to salmonids inside the mixing zone:

(A) Impairment of an active salmonid spawning area where spawning redds are located or likely to be located. This adverse effect is prevented or minimized by limiting potential fish exposure to temperatures of 13 °C or less for salmon and steelhead, and 9 °C for bull trout;
(B) Acute impairment or instantaneous lethality is prevented or minimized by limiting potential fish exposure to temperatures of 32.0 °C or more to less than two seconds;
(C) Thermal shock caused by a sudden increase in water temperature is prevented or minimized by limiting potential fish exposure to temperatures of 25.0 °C or more to less than five percent of the cross section of 100 percent of the 7Q10 flow of the water body; the Department may develop additional exposure timing restrictions to prevent thermal shock; and
(D) Unless the ambient temperature is 21.0 °C or greater, or minimized by limiting potential fish exposure to temperatures of 21.0 °C or more to less than 25 percent of the cross section of 100 percent of the 7Q10 low flow of the water body.

According to the Oregon Department of Fish and Wildlife spawning maps, no salmonid spawning occurs in the vicinity of proposed effluent discharge. Requirement A above is satisfied.

The expected maximum effluent temperature of the discharge is 18.0 °C. As effluent temperatures approach this value, it is likely most if not all effluent will be reused as recycled water. However, the Department believes it is prudent to allow some discharges when effluent temperatures are between 18.0 °C and 25.0 °C at the reduced rates noted above. With these flows and temperatures **(see Attachment #2)**, the discharge will not cause migration blockage. Therefore, requirement D is satisfied.

Because the effluent temperature is limited to no more than 25.0 °C, acute impairment and thermal shock cannot occur therefore requirements B and C above are satisfied. The Department is not aware of any other water quality violations that may be attributable to this source.

PERMIT HISTORY

Previous Permit Action

This is the first National Pollutant Discharge Elimination System (NPDES) Permit for this source.

Current Permit Limits

There are no current permit limits.

Compliance History

The City of Coburg does not have any compliance history.

PERMIT LIMITATIONS

Two categories of effluent limitations exist for NPDES permits: 1) Technology based effluent limits, and 2) Water quality based effluent limits. Technology based effluent limits have been established by EPA rules. Technology based effluent limits were established to require a minimum level of treatment for industrial or municipal sources using available technology. Water quality based effluent limits are designed to be protective of the beneficial uses of the receiving water and are independent of the available treatment technology.

When renewing a permit, the most stringent between technology-based and water quality-based effluent limits must be applied.

Technology-Based Effluent Limits

EPA has established secondary treatment standards for domestic wastewater treatment facilities. The standards are found in 40 CFR Part 133. This facility must achieve a biochemical oxygen demand (BOD_5) monthly average of 30 mg/L and a weekly average of 45 mg/L or a carbonaceous biochemical oxygen demand ($CBOD_5$) monthly average of 25 mg/L and a weekly average of 40 mg/L. The City of Coburg has requested that effluent limits (concentration, mass and percent removal) be based on $CBOD_5$. The facility must also achieve a suspended solids (TSS) monthly average of 30 mg/L and a weekly average of 45 mg/L. The pH must be between 6.0 and 9.0.

In addition, a minimum level of percent removal for $CBOD_5$ and TSS for municipal dischargers is required by the Code of Federal Regulations (CFR) secondary treatment standards (40 CFR, Part 133). An 85 percent removal efficiency limit is generally included in permits in order to comply with federal requirements.

Oregon Administrative Rules also establish minimum design criteria for domestic treatment facilities. In this portion of the Willamette Basin, the $CBOD_5$ and TSS minimum design criteria is 10 mg/L as a monthly average in the summer period and secondary treatment in the winter period (OAR 340-041-0345(3)). In addition, there are requirements for disinfection, dilution of oxygen demanding pollutants and prevention of raw sewage overflows (OAR 340-041-0007(16).

During periods of low stream flow, the discharge may not comply with the minimum design criteria for dilution (OAR 340-041-0007(16)(a)(i)). The rule states that effluent BOD_5 concentrations in mg/L divided by the dilution factor (ratio of receiving water stream flow to effluent flow) shall not exceed one unless specifically approved by the Environmental Quality Commission (EQC). Before the Department can issue the proposed permit, a dilution waiver will have to be obtained from the EQC (see minimum design criteria for dilution discussion below).

Water Quality-Based Effluent Limits

The Department is required to determine whether the discharge has the reasonable potential to cause or contribute to an exceedance of a water quality criterion. Pollutant parameters should be limited if there is a reasonable potential for the discharge to cause or contribute to an excursion above any state water quality criteria or standard. EPA has developed a method to make this determination for toxic pollutants called a reasonable potential analysis (RPA). An RPA relies on statistical probability to determine the likelihood that a discharge will violate an instream criterion based on the effluent data, its variability, available dilution, and the receiving water background concentration. The Department has developed RPA spreadsheets that employ EPA's methodology.

The permittee will use chlorine to disinfect their treated wastewater. Chlorine concentrations necessary to disinfect treated wastewater far exceed the acute and chronic toxicity criteria. Therefore, the permittee must dechlorinate the effluent to avoid violating water quality standards for chlorine. Because the effluent must be dechlorinated, no RPA needs to be performed. However, a total residual chlorine limit is still necessary and is included in the permit.

A RPA for ammonia was performed by evaluating the design effluent quality in DEQ spreadsheets. The RPA was based upon no mixing zone, an effluent pH and various effluent temperatures. The RPA **(see Attachment #3)** for ammonia indicated that there is a reasonable potential for the discharge to cause or contribute to an excursion above the water quality criteria for ammonia at all effluent temperatures. Therefore, the Department proposes to include ammonia limits in the permit (see Schedule A discussion for ammonia below).

Minimum Design Criteria for Dilution

The minimum dilution requirement is considered a technology standard although the original intent was a rule-of-thumb attempt to prevent water quality standard violations for dissolved oxygen in small receiving streams. The department evaluated two worst case scenarios for compliance with the dissolved oxygen standard. The first scenario was discharge during the non-irrigation season when there is very little flow (0.2 cfs) in the EIC and the EIC joins with Muddy Creek which also has very little flow (2.2 cfs). The second scenario is during the irrigation season with higher flows (5 cfs) in the EIC but where the EIC crosses under Muddy Creek and I-5 and continues for several miles. With both scenarios, compliance with the water quality standard is assured (see Schedule A discussion for dissolved oxygen below).

However, dilution is also important when evaluating the potential for toxicity. As stated above, a RPA relies on many factors including available dilution. The effluent will be treated domestic wastewater with little if any industrial process wastewater. The potential for the discharge to contain toxic metals or organic pollutants is low especially given the high level of treatment provided.

However, residuals from personal care products and pharmaceuticals are expected in the effluent. Similar residuals are found in the effluent from all domestic wastewater treatment facilities. It is not known whether the membrane bioreactor will remove these chemical at higher rates than conventional treatment plants. In the future, if standards for these chemicals are established or some other regulatory mechanisms are developed, the City of Coburg will have to adhere to these requirements in a manner consistent with other domestic dischargers.

At the design year, the worst case dilution will occur when Muddy Creek flows are at the 7Q10 flow of 2.2 cfs and the discharge flow is 0.44 MGD (or 0.68 cfs). Under these conditions, the discharge would have a dilution factor of 3.2. Even though the effluent $CBOD_5$ concentrations will likely be much lower than 10 mg/L, they could frequently be above 3.2 mg/L. The City cannot comply with the dilution rule on a consistent basis.

The facility planning process included careful evaluations of all water quality criteria. If an exception is granted by the EQC, all water quality criteria will be met and no beneficial use will be impaired due to this discharge.

During facility planning, several alternatives were considered including discharge to the Willamette River or McKenzie River along with transfer of raw wastewater to the Metropolitan Wastewater Management Commission (MWMC) facility in Eugene. None of these alternatives were feasible.

In order to comply with the dilution rule, the City would have to provide facilities with essentially no discharge (significantly greater recycled water demand and storage capacity) at a cost estimated at $10 to $14 million. The City of Coburg has requested a waiver of the dilution rule as allowed by OAR 340-041-0007(16)(a)(A)(1) and the Department supports that request.

PERMIT DRAFT DISCUSSION

The proposed permit limits and conditions are described below. Refer to the proposed permit and the discussion above when reviewing this section.

Face Page

The face page provides information about the permittee, description of the wastewater, outfall locations, receiving stream information, permit approval authority, and a description of permitted activities. The permittee is authorized to construct, install, modify, or operate a wastewater collection, treatment, control and disposal system. Permits discharge of treated effluent to the unnamed tributary of Muddy Creek which joins Muddy Creek at river mile 50.7 and Little Muddy Creek. Discharges must be within limits set by Schedule A and the following schedules. The irrigation of recycled water is also allowed within limits set by Schedule A and the following schedules. All other discharges are prohibited.

In accordance with OAR 340, Division 49 all permitted municipal wastewater collection and treatment facilities are to receive a classification based on the size and complexity of the systems. Both collection system and treatment system were evaluated to determine the appropriate classification for operator certification requirements **(see Attachment #4)**. The Department has incorporated the classification of the collection and treatment systems into the NPDES discharge permit. The Department is proposing the collection system be classified as Class II and the treatment system be classified as Class III. The City should be able to find operators capable of operating this system from the pool of certified operators at this level or higher.

Schedule A, Waste Discharge limitations

Schedule A contains the effluent limitations proposed for Outfalls 001 and 002. In addition, there are conditions prohibiting raw sewage overflows, adverse impacts on existing or potential beneficial uses of groundwater and a prohibition of accepting septage.

Outfall 001 - Treated Effluent
The Department is proposing the following permit limits for Outfall 001:

(1) May 1 - October 31:

Parameter	Average Effluent Concentrations Monthly	Weekly	Monthly Average lb/day	Weekly Average lb/day	Daily Maximum lbs
CBOD5	10 mg/L	15 mg/L	29	47	57
TSS	10 mg/L	15 mg/L	29	47	57

(2) November 1 - April 30:

Parameter	Average Effluent Concentrations Monthly	Weekly	Monthly Average lb/day	Weekly Average lb/day	Daily Maximum lbs
CBOD5	30 mg/L	45 mg/L	29	47	57
TSS	30 mg/L	45 mg/L	29	47	57

(3) Other Parameters

Year-round (except as noted)	Limitations

E. coli Bacteria	Shall not exceed 126 organisms per 100 mL monthly geometric mean. No single sample shall exceed 406 organisms per 100 mL.
pH	Shall be within the range of 6.5 - 8.5
CBOD5 and TSS Removal Efficiency	Shall not be less than 85% monthly average for CBOD5 and TSS.
Total Residual Chlorine	Shall not exceed a monthly average concentration of 0.01 mg/L and a daily maximum concentration of 0.02 mg/L.
Dissolved Oxygen (DO)	Shall not fall below a monthly average concentration of 6.5 mg/L, a weekly average concentration of 5.0 mg/L and an absolute minimum concentration of 4.0 mg/L.
Excess Thermal Load Limit (ETLL) when rolling 7-day average effluent temperature exceeds 18°C	Limit is calculated with the equation: $ETLL = (Q_E + (Q_R / 6.188)) * 0.3 * 3.785$ Where: Q_E = rolling 7-day average effluent flow in MGD Q_R = rolling 7-day average EIC flow in cfs EIC = East Irrigation Canal
Ammonia-N	Temperature dependent (see below)
Monthly average effluent temperature ≤ 15°C	Shall not exceed a monthly average concentration of 1.5 mg/L and a daily maximum concentration of 2.9 mg/L
Monthly average effluent temperature >15°C but ≤ 17°C	Shall not exceed a monthly average concentration of 1.3 mg/L and a daily maximum concentration of 2.5 mg/L

(4) Other Parameters (continued)

Year-round (except as noted)	Limitations
Ammonia-N (continued)	Temperature dependent (see below)
Monthly average effluent temperature >17°C but ≤ 19°C	Shall not exceed a monthly average concentration of 1.1 mg/L and a daily maximum concentration of 2.2 mg/L
Monthly average effluent temperature >19°C but ≤ 21°C	Shall not exceed a monthly average concentration of 0.95 mg/L and a daily maximum concentration of 1.9 mg/L
Monthly average effluent temperature >21°C but ≤ 23°C	Shall not exceed a monthly average concentration of 0.82 mg/L and a daily maximum concentration of 1.6 mg/L
Monthly average effluent temperature >23°C but ≤ 25°C	Shall not exceed a monthly average concentration of 0.77 mg/L and a daily maximum concentration of 1.5 mg/L
Monthly average effluent temperature >25°C	Discharge is prohibited

The derivation of each limit is discussed below in more detail.

$CBOD_5$ and TSS concentration and mass limits

Based on the Willamette Basin minimum design criteria, wastewater treatment resulting in a monthly average effluent concentration of 10 mg/L for $CBOD_5$ and TSS must be provided from May 1 through October 31. From November 1 through April 30, a minimum of secondary treatment is required. Secondary treatment in Oregon is defined as monthly average concentration limit of 25 mg/L for $CBOD_5$ and 30 mg/L for TSS.

The Department is proposing concentration limits that are equal to the basin minimum design criteria. The proposed monthly average summer $CBOD_5$ and TSS concentration limits are 10 mg/L with a weekly average limit of 15 mg/L. The proposed monthly average winter $CBOD_5$ concentration limits are 25 mg/L with a weekly average limit of 40 mg/L. The proposed monthly average winter TSS concentration limits are 30 mg/L with a weekly average limit of 45 mg/L.

The facility's proposed mass limits (monthly and weekly average and daily maximum) for $CBOD_5$ and TSS are year-round and are based on the following:

The facility's monthly average mass limits for $CBOD_5$ and TSS are based on the monthly average design flow of 0.44 MGD and an effluent quality of 8 mg/L

The facility's weekly average mass limits for $CBOD_5$ and TSS are based on the average flow for the maximum week of 0.7 MGD and an effluent quality of 8 mg/L

The facility's daily maximum mass limits for $CBOD_5$ and TSS are based on the maximum daily flow of 0.86 MGD and an effluent quality of 8 mg/L

The calculations are:

a) 0.44 MGD x 8.34 lbs/gal x 8 mg/L = 29 lbs/day monthly avg.
b) 0.70 MGD x 8.34 lbs/gal x 8 mg/L = 47 lbs/day weekly avg.
c) 0.86 MGD x 8.34 lbs/gal x 8 mg/L = 57 lbs/day daily maximum

The mass limits were established in accordance with OAR 340-041-0061(10)(b). The Department must make certain findings when proposing a permit with new or increased mass loads (OAR 340-041-0004(9)). Kennedy/Jenks Consultants prepared a mass load request on behalf of the City of Coburg wastewater treatment facility. The Department has evaluated the calculated mass load limits listed above and believe them to be acceptable. In order to approve the mass load increase and discharge to the receiving stream, the Department is obligated to review the request in relation to the Department's rules for allowing a mass load discharge to a receiving water body (OAR 340-041-0004(9)).

The mass limits were established in accordance with OAR 340-041-0061(10)(b). The Department must make certain findings when proposing a permit with new or increased mass loads (OAR 340-041-0004(9)). Kennedy/Jenks Consultants prepared a mass load request on behalf of the City of Coburg wastewater treatment facility. The Department has evaluated the calculated mass load limits listed above and believe them to be acceptable. In order to approve the mass load increase and discharge to the receiving stream, the Department is obligated to review the request in relation to the Department's rules for allowing a mass load discharge to a receiving water body (OAR 340-041-0004(9)).

a. In allowing new or increased discharged loads, the commission or Department must make the following findings:

A. The new or increased discharged load will not cause water quality standards to be violated.

Conclusion:

The City is requesting new permitted loads for $CBOD_5$ and TSS year-round. The proposed loads are: 29 pounds per day as a monthly average, 47 pounds per day as a weekly average and 57 pounds per day as a daily maximum. These limits will apply year-round.

As part of the facility planning work, Kennedy/Jenks Consultants performed in stream flow measurement and sample monitoring to characterize the EIC at the point of the outfall discharge and Muddy Creek downstream. The effect of the proposed discharge on dissolved oxygen and temperature was addressed in Technical Memorandums **(see Attachment 5)**. Water quality standards will be achieved at the "end of pipe" and maintained in the receiving stream. Effluent reuse and irrigation will be used to avoid

discharging during critical low flow periods in the receiving stream or when effluent temperatures are high. Prior to discharge, aeration will be provided to raise the effluent dissolved oxygen concentration to ensure water quality standards are met at the point of discharge.

B. The action is necessary and benefits of the lowered water quality outweigh the environmental costs of the reduce water quality.

Conclusion:

The proposed wastewater collection and treatment system will eliminate onsite treatment systems and drain fields. This will directly reduce the trend of increasing groundwater nitrate levels in the Coburg vicinity and the Southern Willamette Valley Groundwater Management Area.

The current total nitrogen load to the groundwater from existing onsite systems is about 80 pounds per day (0.19 mgd and TKN at 50 mg/l). At the projected growth rate this amount will double over the next 20 years. The new wastewater treatment facility will reduce the total nitrogen by 80 percent through treatment (effluent TKN of 10 mg/l). Irrigating the recycled water at agronomic rates will further reduce the nitrogen load on the groundwater.

An evaluation was conducted in accordance with DEQ's "Antidegradation Policy Implementation Internal Management directive for NPDES permits" **(See Attachment #6)**.

C. The new or increased discharge load would not threaten or impair any recognized beneficial uses or adversely affect threatened or endangered species.

Conclusion:

Water quality standards will be maintained and therefore beneficial uses will be protected. Consultation with USFWS regarding the endangered Oregon chub has concluded that the effects on the chub were "insignificant or discountable". The EPA subsequently made a "may affect, not likely to adversely affect" (NLAA) determination for the proposed project on the Federally listed as endangered Oregon chub **(see Attachment #7)**.

D. The new or increase discharge load shall not be granted if the receiving stream is classified as being water quality limited under OAR 340-041-0002(62)(a), unless certain circumstances apply.

Conclusion:

The receiving stream is not included on the Department of Environmental Quality's (Department) 303 (d) list as being water quality limited. However, many streams in the Willamette Basin are listed on the 303d list for temperature from April 1 through October 31. The Coburg facility will be permitted to discharge during this period. The Willamette Sub-basin TMDL includes a method for determining whether or not a discharger to a tributary stream needs a thermal limit and, if so, how to calculate the limit.

If a facility is found to have no reasonable potential to warm the receiving water, a wasteload allocation is not required. The City of Coburg's potential temperature impacts were assessed for the period April 1 through October 31. The assessment was conducted in accordance with the Sub-basin TMDL Waste Load Allocations by using the process contained in the TMDL. The thermal load from the wastewater

facility will be limited such that the temperature increase at the point of discharge will be less than the Human Use Allowance (0.3°C increase) with 25% of the receiving stream flow. The discharge will have no impact on the Willamette River temperature.

b. The activity, expansion, or growth necessitating a new or increased discharge load is consistent with the acknowledged local land use plans as evidenced by a statement of land use compatibility from the appropriate local planning agency.

Conclusion:

This is a new discharge from wastewater currently treated with onsite systems. Future growth projections are based on population projections from the local planning agency. Growth projections are discussed in the Coburg Wastewater Facilities plan document. A land use compatibility statement for the proposed facilities was submitted to the Department as part of the NPDES permit application process.

c. Oregon's water quality management policies and programs recognize that Oregon's water bodies have a finite capacity to assimilate waste. Unused assimilative capacity is an exceedingly valuable resource that enhances in-stream values and environmental quality in general. Allocation of any unused assimilative capacity should be based on explicit criteria. In addition to the conditions in subsection (a) of this section, the Commission or Department may consider the following:

(A) Environmental Effects Criteria:

(i) Adverse Out-of-Stream Effects. There may be instances where the non-discharge or limited discharge alternatives may cause greater adverse environmental effects that the increased discharge alternative. An example may be the potential degradation of groundwater from land application of wastes;

Conclusion:

The current degradation of groundwater from existing onsite treatment systems will be greatly reduced by the proposed treatment and discharge. Wastewater collection and treatment for Coburg is consistent with the goals or the Southern Willamette Valley Groundwater Management Area.

(ii) In stream Effects. Total stream loading may be reduced through elimination or reduction of other source discharges or through a reduction in seasonal discharge. A source that replaces other sources, accepts additional waste from less efficient treatment units or systems, or reduces discharge loadings during periods of low stream flow may be permitted an increased discharge load year-round or during seasons of high flow, so long as the loading has no adverse affect on threatened and endangered species.

Conclusion:

The objective of Coburg's wastewater program is to produce Class A recycled water which will be reused for agricultural and landscaping irrigation. The City will likely reuse most or all of the recycled water during irrigation season. Therefore, discharge to surface waters will be limited to non-irrigation season with possible minor amounts during the irrigation season. The membrane bioreactor wastewater treatment technology will produce a Class A effluent during all seasons whether or not the effluent is

reused or discharged. The effluent quality will exceed basins standards. Consultation with USFWS has concluded that the project will have no adverse affect on threatened and endangered species.

(iii) Beneficial Effects. Land application, upland wetland's application, or other non-discharge alternatives for appropriately treated wastewater may replenish groundwater levels and increase stream flow and assimilative capacity during otherwise low stream flow periods.

Conclusion:

Land and wetland application are both part of the Coburg wastewater project. The City will reuse essentially all recycled water during irrigation season. The project also includes a wetland and habitat restoration component. It is feasible that treated wastewater can be discharged through restored wetlands.

(B) Economic Effects Criteria. When assimilative capacity exists in a stream, and when it is judged that increased loadings will not have significantly greater adverse environmental affects than other alternatives to increased discharge, the economic effect of increased loading will be considered. Economic effects will be of two general types:

(i) Value of Assimilative Capacity. The assimilative capacity of Oregon's streams is finite, but the potential uses of this capacity are virtually unlimited. Thus it is important that priority be given to those beneficial uses that promise the greatest return (beneficial use) relative to the unused assimilative capacity that might be utilized. In-stream uses that will benefit from reserve assimilative capacity, as well as potential future beneficial use, will be weighed against the economic benefit associated with increased loading.

Conclusion:

Impacts on assimilative capacity are localized, minor and maintain water quality standards. The economic benefit of allowing the mass loading is considerable to the citizens of Coburg (see next section). Without the ability to discharge some mass load, the City would be force to continue to rely on septic tanks and drainfields. The impacts to groundwater would continue to increase which would affect the livability in the area.

(ii) Cost of Treatment Technology. The cost of improved treatment technology, non-discharge and limited discharge alternatives may be evaluated.

Conclusion:

The Wastewater Facility Plan evaluated various alternatives for treatment facilities. The proposed treatment system will produce Class A recycled water for reuse during irrigation season. Discharge will mostly occur during the wet weather season. Eliminating discharge during all seasons would require a significantly larger effluent storage lagoon and obtaining sufficient agricultural land to irrigate the entire recycled water volume plus rainfall accumulation on the large storage lagoon. The estimated additional cost for a non-discharge system is between $10 to $14 million. This represents a significant cost increase over the cost of the project as currently envisioned. Proceeding with a non-discharging approach would require additional funding which would likely delay and may jeopardize the entire project. The City's 2007 population was 1070.

Recommendation: The Department is proposing to issue a NPDES permit with new mass load limits for BOD_5 and TSS.

$CBOD_5$ and TSS Percent Removal Efficiency
A minimum level of percent removal for $CBOD_5$ and TSS for municipal dischargers is required by the Code of Federal Regulations (CFR) secondary treatment standards (40 CFR, Part 133). An 85 percent removal efficiency limit is included in the proposed permit to comply with federal requirements. Due to preliminary treatment that occurs within the septic tanks, the influent BOD and TSS concentrations are assumed to be 200 mg/l. Based on the design criteria of the collection system and treatment process, the City should be able to comply with the $CBOD_5$ and TSS removal efficiency limits.

pH
The Willamette Basin Water Quality Standard for pH is found in OAR 340-041-0445(2)(d). The allowed range is 6.5 to 8.5. When discharging to waters of the state without a mixing zone, the discharge must meet the water quality standards at the end of the discharge pipe. Therefore, the Department proposes effluent limits equal to the allowed ambient range of 6.5 to 8.5. The Department considers the proposed permit limits to be protective of the water quality standard.

Bacteria
The proposed limits are taken directly from the Oregon bacteria rule which is found in OAR 340-041-0009. This rule establishes numeric instream water quality standards (OAR 340-041-0009(1)) and effluent limitations as well as the methodology for establishing a violation (OAR340-041-0009(5)). It also establishes a prohibition against discharging raw sewage (OAR 340-041(2)) except during storm events that exceed specified winter and summer design criteria (OAR 340-041-0009(6) & (7)).

It should be noted that to be in compliance with OAR 340-0041-0009, a permit holder must comply with both the instream numeric bacteria standard as well as the prohibition against discharging raw sewage. This means that if overflows from a wastewater conveyance system result in exceedances of the instream numeric criteria, the permit holder may still be subject to enforcement action even if the overflow occurred during a storm event larger than what the system was designed to handle. In such cases, DEQ will exercise enforcement discretion.

The proposed limits for this permit are a monthly geometric mean of 126 *E. coli* per 100 mL, with no single sample exceeding 406 *E. coli* per 100 mL. If a single sample exceeds 406 *E. coli* per 100 mL, then the permittee may take five consecutive re-samples. If the log mean of the five re-samples is less than or equal to 126, a violation is not triggered. The re-sampling must be taken at four hour intervals beginning within 28 hours after the original sample was taken.

The rule also allows for changing the resampling timeframe if it would pose an undue hardship on the treatment facility. After discussions with the permittee, the Department is proposing that the five re-samples be taken beginning no later than 72 hours after the original sample was taken. This is consistent with OAR 340-041-0009(5)(a).

Total Chlorine Residual
Chlorine is added to the discharge to disinfect the plant effluent and comply with the waste discharge limitations for bacteria. The minimum design criteria (OAR 340-041-0007) for sewage wastes requires the treatment plant to provide disinfection facilities capable of achieving 1.0 mg/L total chlorine residual. This concentration could be considered a technology based minimum concentration.

Chlorine is a known toxic substance and as such is subject to limitation under Oregon Administrative Rules. The rule (OAR 340-041) states in part that toxic substances shall not be discharged to waters of the state at concentrations that adversely affect public health, aquatic life or other designated beneficial uses. In addition, concentrations of toxic substances shall not exceed the criteria listed in Table 20, which were based on criteria established by the EPA and published in Quality Criteria for Water (1986), unless otherwise noted.

Federal regulations (40 CFR §122.44(d)) state that permit limitations must control all pollutants or pollutant parameters which are or may be discharged at a concentration which will cause, have the reasonable potential to cause, or contribute to an excursion above any state water quality standard, including state narrative criteria for water quality. The fresh water criteria for chlorine were used to calculate permit limitations. According to OAR 340-041, Table 33A, chlorine concentrations of 11 µg/L can result in chronic toxicity in fresh waters while 19 µg/L can result in acute chlorine toxicity in fresh waters.

This facility has no mixing zone. Therefore, the dilution factor used to calculate the permit limits for total residual chlorine is one. Permit limits based on the acute and chronic criteria were calculated **(see Attachment #8)** and are proposed with this permit. The proposed permit limits are a monthly average concentration of 0.01 mg/L and a daily maximum concentration of 0.02 mg/L.

The water quality based effluent limits for total residual chlorine proposed in this permit are lower than the Minimum Level (ML) for chlorine of 0.1 mg/L published by EPA. In accordance with EPA Region X Guidance for WQBELs Below Analytical Detection Limits issued in 1996, the permit should include the ML as a "compliance evaluation level". The Department is proposing to include a note in Schedule A establishing 0.10 mg/L as a compliance evaluation level for total residual chlorine.

Ammonia
Ammonia is a substance normally found in wastewater. The wastewater treatment processes, particularly aeration and biological treatment, can convert a large portion to nitrate and nitrite but the treated effluent still contains some ammonia. After discharge, the continued process of oxidizing ammonia can remove dissolved oxygen (DO) from the receiving stream. This will be evaluated below under the discussion about dissolved oxygen.

In addition, nitrogen compounds (including ammonia) are nutrients that can contribute to excessive biological growth that cause violations of water quality standards. The problems could manifest as visual or aesthetic impairment or could cause excessive DO or pH fluctuations. Under most circumstances, phosphorus is the limiting nutrient rather than nitrogen. This means there is almost always a large excess of nitrogen available for biological growth but it cannot be utilized due to a lack of phosphorus. There is no indication that the reverse is true in this location and the Department does not anticipate the need to limit nitrogen discharges to inhibit biological growth.

Finally, unionized ammonia is also a toxic agent and may have to be limited to prevent toxicity. The water outside the boundary of the mixing zone shall be free of materials in concentrations that will cause chronic (sublethal) toxicity while the water outside the ZID must be free of pollutants that will cause acute toxicity.

If ammonia is discharged at a concentration which will cause, has the reasonable potential to cause, or contribute to an excursion above any state water quality standard (either as a nutrient or to prevent DO depletion or toxicity), ammonia must be limited by the permit.

In order to determine if a permit limit for ammonia is needed based on toxicity, a detailed evaluation was performed. According to EPA's 1986 Quality Criteria for Water and OAR 340-41, Table 20, toxic concentrations of total ammonia are pH and temperature dependent. The pH of the discharge is estimated to be as high as 7.6 in late summer. If effluent pH is found to be significantly different, the Department may adjust the ammonia limits (up or down) based on actual pH values. Salmonids were assumed to be present but not spawning. Because no mixing zone is allowed, potential effluent toxicity will essentially be dependent on the effluent temperature.

Using the Department's RPA spreadsheet, based on EPA's Technical Support Document, an analysis was performed **(see Attachment #3)** to determine if the discharge will cause, have the reasonable potential to cause, or contribute to any excursion above state water quality standard for ammonia. The spreadsheet calculated that there was a reasonable potential for toxicity due to ammonia at all effluent temperatures. The Department proposes ammonia limits be included in the permit. End-of-pipe limits based on the 1986 criteria were calculated **(see Attachment #9)** and will vary depending upon effluent temperature. The proposed limits are:

Monthly Average Effluent Temperature	Limitations
Monthly average effluent temperature ≤ 15°C	Shall not exceed a monthly average concentration of 1.5 mg/L and a daily maximum concentration of 2.9 mg/L
Monthly average effluent temperature >15°C but ≤ 17°C	Shall not exceed a monthly average concentration of 1.3 mg/L and a daily maximum concentration of 2.5 mg/L
Monthly average effluent temperature >17°C but ≤ 19°C	Shall not exceed a monthly average concentration of 1.1 mg/L and a daily maximum concentration of 2.2 mg/L
Monthly average effluent temperature >19°C but ≤ 21°C	Shall not exceed a monthly average concentration of 0.95 mg/L and a daily maximum concentration of 1.9 mg/L
Monthly average effluent temperature >21°C but ≤ 23°C	Shall not exceed a monthly average concentration of 0.82 mg/L and a daily maximum concentration of 1.6 mg/L
Monthly average effluent temperature >23°C but ≤ 25°C	Shall not exceed a monthly average concentration of 0.77 mg/L and a daily maximum concentration of 1.5 mg/L
Monthly average effluent temperature >25°C	Discharge is prohibited

The ammonia criteria currently in Table 20 are based on EPA's Quality Criteria for Water (1986), which is also known as the "Gold Book" criteria. The State of Oregon has adopted new ammonia criteria based on the EPA 1999 criteria for ammonia and is waiting for EPA to approve the new criteria. The ammonia limits calculated using the EPA Gold Book Criteria are considered interim limits.

The 1999 acute criteria is pH dependant while the chronic criterion is both pH and temperature dependant. There is a reasonable potential for toxicity due to ammonia (using rearing and migration criteria) using the 1999 criterion only when effluent temperatures are between 21°C and 25°C **(see Attachment #3)**. Ammonia limits based on the 1999 criteria were calculated **(see Attachment #9d)**. They will apply only when effluent temperatures are between 21°C and 25°C.

Upon EPA approval of the revised water quality toxics criteria for ammonia, the final ammonia limit shall those based on the 1999 criteria. The final limit shall be effective upon EPA approval of the 1999 criteria without a formal permit modification. The proposed final limits are:

Monthly Average Effluent Temperature	Limitations
Monthly average effluent temperature	No limit

≤21°C	
Monthly average effluent temperature >21°C but ≤23°C)	Shall not exceed a monthly average concentration of 2.8 mg/L and a daily maximum concentration of 5.6 mg/L
Monthly average effluent temperature >23°C but ≤25°C)	Shall not exceed a monthly average concentration of 2.5 mg/L and a daily maximum concentration of 4.9 mg/L
Monthly average effluent temperature >25°C	Discharge is prohibited

All ammonia limits apply year-round.

Dissolved Oxygen
The Coburg area is found in the Willamette Valley ecoregion (a Level III ecoregion designated by EPA). Most small valley bottom streams in this ecoregion are classified by the Department as supporting cool-water aquatic life. The cool-water aquatic life dissolved oxygen (DO) criteria found in OAR 340-041-0016(3) applies to this habitat:

> (3) For water bodies identified by the Department as providing cool-water aquatic life, the dissolved oxygen may not be less than 6.5 mg/l as an absolute minimum. At the discretion of the Department, when the Department determines that adequate information exists, the dissolved oxygen may not fall below 6.5 mg/l as a 30-day mean minimum, 5.0 mg/l as a seven-day minimum mean, and may not fall below 4.0 mg/l as an absolute minimum (Table 21).

According to Table 21, mixed native cool-water aquatic life, such as sculpins, smelt, and lampreys should predominate. Salmonids and other cold-water biota may be present during part or all of the year but do not form a dominant component of the community structure. The Department believes this accurately describes the lower part of Muddy Creek and Little Muddy Creek as they run across the floor of the Willamette Valley.

Kennedy/Jenks Consultants monitored the EIC, the West Irrigation Canal and Muddy Creek for flow and several water quality parameters (including ammonia, BOD and DO) from August 2007 through June 2008 **(see Attachment #1)**. The DO in the EIC ranged from 7.1 mg/L to 10.1 mg/L except for one result that was 6.2 mg/L (November 8, 2007) while BOD and ammonia were generally not detected.

The results for Muddy Creek (upstream of I-5) varied significantly depending upon the season. Before the fall rains started, the DO ranged from 4.6 mg/L to 7.6 mg/L. After the rains started, the DO ranged from 9.5 mg/L to 12 mg/L. Muddy Creek downstream of the West Irrigation Canal was much more consistent year-round with the lowest DO concentration of 6.9 mg/L (also November 8, 2007).

During the irrigation season, the water quality of Muddy Creek and Little Muddy Creek will be greatly influenced by the quantity and quality of any irrigation water contributed by the MCIP. The most critical portions of the year are after the end of the irrigation season and before the rains start. During that period, the EIC will flow into Muddy Creek and its water quality will be most influenced by the quality of the effluent. After the rains start, Muddy Creek will be mostly stormwater runoff.

In order to use the cool-water aquatic life dissolved oxygen (DO) criteria, the Department must have data that indicates DO will not vary diurnally to the extent that the criteria will be violated at night when photosynthesis stops but respiration continues. Kennedy/Jenks Consultants deployed a continuous DO monitor for one week in November 2008. The DO in Muddy Creek (upstream of I-5) ranged from 7.03 mg/L to 9.95 mg/L **(see Figure #5).** The highest diurnal range was 1.64 mg/L. During the non-irrigation season, the range in DO in Muddy Creek downstream of the EIC will almost certainly be less.

If one assumes the lowest DO reading for Muddy Creek downstream of the EIC (6.9 mg/L) was the highest reading for that day and subtracts the highest diurnal range found upstream of the EIC (1.64 mg/L), the resultant minimum DO concentration would be 5.26 mg/L. This is a very conservative estimation of the lowest possible DO concentration and it is much higher than the absolute minimum and even higher than the seven-day minimum mean (the 7-day average of the lowest daily readings). Therefore, the proposed discharge will not cause violations of the cool water dissolved oxygen criteria.

The Department believes the above information is adequate to use 6.5 mg/l as a 30-day mean minimum criteria, 5.0 mg/l as a seven-day minimum mean criteria, and 4.0 mg/l as an absolute minimum criteria. The proposed treatment facility will produce very high quality effluent with little oxygen demanding pollutants ($CBOD_5$ and ammonia). Because there is no mixing zone, the effluent must meet the ambient criteria prior to discharge. The Department proposes to include effluent permit limits for DO equal to the criteria.

The Department also evaluated the impact of the discharge on the instream DO content for many miles downstream to ensure the criteria are continually met. Two different scenarios were evaluated. The first scenario is the non-irrigation season when the EIC flows into Muddy Creek. The second scenario is the irrigation season when the EIC crosses under Muddy Creek and I-5, becomes Little Muddy Creek which then joins Putnam Creek 7.95 river miles from the discharge point.

Scenario #1

The Department used a spreadsheet model based on Streeter-Phelps equations to evaluate discharge scenario #1. The potential impacts were found to be minimal and local **(see Attachment #10a through 10c)**. If no other pollutants were introduced to the stream other than the discharge, the stream would reaerate faster than the oxygen demanding pollutants (both natural and those introduced by the discharge) will remove oxygen. Because other oxygen demanding pollutants are continually introduced (from stormwater and agricultural runoff) and other streams join Muddy Creek, it is impossible to model actual conditions.

Assuming worst case conditions (a DO concentration of 6.5 mg/L in the EIC at the point of discharge, maximum discharge volume and maximum allowed pollutant load), the oxygen content should increase to 8.62 mg/L by the time the flow reaches Muddy Creek even with the discharge. The oxygen content will continue to increase in Muddy Creek until it stabilizes around 9.15 mg/L a few miles downstream of the West Irrigation Canal. The proposed discharge will not cause violations of the cool water DO criteria in Muddy Creek.

The 303(d) List for 2004/2006 indicates the Willamette River is water quality limited for DO during the spawning period (October 15 through May 15). The City proposes to discharge during this period so the potential to impact that listing was evaluated. OAR 340-041-0004(3)(d) states that up to a 0.1 mg/L decrease in dissolved oxygen is not considered a reduction in water quality. The Department does not believe this discharge will have such an impact on the Willamette River.

The maximum DO deficit caused by the discharge (stream alone minus stream and discharge together) was 0.35 mg/L DO at the point that the EIC joins Muddy Creek. Before Little Muddy Creek joins Muddy Creek (21 miles downstream of the West Irrigation Canal), the deficit was reduced to 0.15 mg/L. Little Muddy Creek drains 61 square miles but the flow is not gauged. The Department has little data about Little Muddy Creek. However, scattered data from 1971 through 2001 indicates DO levels close to 100 percent saturation and low levels of oxygen demanding pollutants **(see Attachment #11)**. After

joining with Little Muddy Creek, the remaining deficit would be diluted by the flow from Little Muddy Creek.

Muddy Creek flows an additional 28 miles to the Willamette after joining with Little Muddy Creek. Even though it is impossible to model the DO deficit downstream of Little Muddy Creek, the Department believes the DO deficit is not measureable (less than 0.10 mg/L) by the time Muddy Creek reaches the Willamette River. Once Muddy Creek mixes with the Willamette River, any remaining DO impact will be diluted by a factor of 27 or more. This proposed discharge will cause far less than a 0.1 mg/L decrease in DO. Such a decrease in DO is not considered a reduction in water quality and the discharge will have no impact on the water quality limited status of the Willamette River for dissolved oxygen during the spawning period.

Scenario #2
The Department used the spreadsheet model to evaluate scenario #2 (irrigation season when the EIC crosses under Muddy Creek and I-5 and flows for 7.95 river miles before joining Putnam Creek). The potential impacts were found to be minimal and local **(see Attachment #10d).** If no other pollutants were introduced to the stream other than the discharge, the stream would reaerate faster than the oxygen demanding pollutants (both natural and those introduced by the discharge) will remove oxygen. Because other oxygen demanding pollutants are continually introduced (from stormwater and agricultural runoff) and other streams join Muddy Creek, it is impossible to model actual conditions.

The worst case effluent conditions (design flow discharge volume, a DO concentration of 6.5 mg/L and maximum allowed pollutant load) and worst case EIC conditions (maximum temperature and minimum volume) were used in the evaluation. The dissolved oxygen content should 9.01 mg/L by the time the flow reaches Putnam Creek without the discharge and 8.86 mg/L with the discharge. The maximum dissolved oxygen depletion would be 0.14 mg/L at the point where the EIC (or Little Muddy Creek) joins Putnam Creek 7.95 miles after discharge.

Putnam Creek has a drainage area of 4.7 square miles. Several other creeks (including Bishop Creek, Pierce Creek and Tub Run) join Little Muddy Creek before it join with Muddy Creek. The addition of each creek will dilute the dissolved oxygen deficit. The proposed discharge will not cause violations of the cool water DO criteria in Little Muddy Creek.

As stated above, the Willamette River is water quality limited for DO during the spawning period (October 15 through May 15). This scenario only considers irrigation season discharges so the potential to impact that listing was not evaluated. However, the Department does not believe this discharge will have such any measurable impact on the Willamette River.

As stated previously, once Muddy Creek mixes with the Willamette River, any remaining DO impact will be diluted by a factor of 27 or more. This proposed discharge will cause far less than a 0.1 mg/L decrease in DO. Such a decrease in DO is not considered a reduction in water quality.

Mixing Zone
No mixing zone is proposed.

Outfall 002 – Recycled Water
The proposed NPDES Permit allows the treatment facility to irrigate Class A recycled water. The utilization of treated effluent is regulated under OAR 340-055.

Irrigation must be in accordance with the limits and requirements in Schedule A. Prior to irrigation of the recycled water, the discharge must comply with turbidity and total coliform limits for the protection of human health due to human pathogens. For Class A recycled water before disinfection, the wastewater must be treated with a filtration process, and the turbidity must not exceed an average of 2 nephelometric turbidity units (NTU) within a 24-hour period, 5 NTU more than five percent of the time within a 24-hour period, and 10 NTU at any time. After disinfection, total coliform must be reduced to a weekly median of 2.2 organisms per 100 mls with no more than 23 organisms per 100 mls in any sample.

The permittee does not currently have a Department approved Recycled Water Use Plan. Prior to the application of any recycled water, a Recycled Water Use Plan must be submitted and approved by the Department. All Recycled Water must be managed in accordance with an approved Recycled Water Use Plan. All recycled water shall be distributed on land, for dissipation by evapotranspiration and controlled seepage by following sound irrigation practices so as to prevent:

- Prolonged ponding of treated recycled water on the ground surface.
- Surface runoff or subsurface drainage through drainage tile.
- The creation of odors, fly and mosquito breeding or other nuisance conditions.
- The overloading of land with nutrients, organics, or other pollutant parameters.
- Impairment of existing or potential beneficial uses of groundwater.

Specific crops, application rates and buffers are approved by the Department within the Recycled Water Use Plan. The turbidity and bacterial effluent limitations are achievable through proper operation and maintenance. Upon Department approval of the Recycled Water Use Plan, the Plan shall become enforceable through this permit.

Raw Sewage Overflows
Schedule A contains a condition prohibiting raw sewage overflows.

Groundwater
Based on the Department's current information, this facility has a low potential for adversely impacting groundwater quality. Therefore, the permit includes a condition in Schedule A that prohibits any adverse impact on groundwater quality. In addition, Schedule D of the proposed permit states that no groundwater evaluations will be required during this permit cycle.

Septic Tank Maintenance
Excessive solids at the wastewater treatment facility could cause operational difficulties. Therefore, the permit contains a requirement to pump residential and commercial septic tanks when sludge and scum volume exceeds 25 percent of the liquid capacity of the tanks.

Septage Acceptance
The Coburg plant is not designed to accept septage therefore; acceptance of septage at the Coburg facility will be prohibited. Septage from the individual septic tanks will likely be hauled to the wastewater treatment facility operated by the Metropolitan Wastewater Management Commission.

Schedule B - Minimum Monitoring and Reporting Requirements

Schedule B describes the minimum monitoring and reporting necessary to demonstrate compliance with the conditions of this permit. The authority to require periodic reporting by permittees is included in ORS 468.065(5). Self-monitoring requirements are the primary means of ensuring that permit limitations are being met. However, other parameters need to be monitored to collect information when insufficient information exists to establish a limit, but where there is a potential for a water quality concern.

In 1988, the Department developed a monitoring matrix for commonly monitored parameters. The matrix was updated in 2004. Proposed monitoring frequencies for all parameters are based on this matrix and, in some cases, may have changed from the current permit. The proposed monitoring frequencies for all parameters correspond to those of facilities of similar size and complexity in the state.

The permittee is required to have a laboratory Quality Assurance/Quality Control program. The Department recognizes that some tests do not accurately reflect the performance of a treatment facility due to quality assurance/quality control problems. These tests should not be considered when evaluating the compliance of the facility with the permit limitations. Thus, the Department is also proposing to include in the opening paragraph of Schedule B a statement recognizing that some test results may be inaccurate, invalid, do not adequately represent the facility's performance and should not be used in calculations required by the permit.

Below is a discussion of some of the minimum monitoring requirements contained in the proposed permit:

Influent and Outfall 001 (Treated Effluent)
Daily monitoring of influent and effluent flow and calibration of each flow meter annually is required in this permit. Monitoring of the influent and effluent for pH has been set at twice per week.

The City of Coburg has requested that effluent limits (concentration, mass and percent removal) be based on $CBOD_5$. Monitoring of the influent and effluent for $CBOD_5$ and TSS has been set at once per week. Pounds of $CBOD_5$ and TSS in the discharge must be calculated at the same frequency.

Federal secondary treatment standards require municipal sources to achieve a $CBOD_5$ and TSS removal efficiency of 85 percent as a monthly average. Reporting of the removal efficiencies is required in the proposed permit. Because the septic tanks will pretreat the influent, an assumed influent strength of 200 mg/L will be used to determine removal efficiency.

The proposed permit requires monitoring of the effluent for total chlorine residual on a daily basis to confirm consistent performance of the disinfection system. The amount of chlorine used each day must also be monitored. Bacteria monitoring of the effluent for *E. coli* has been set at weekly. Monitoring for *E. coli* must be performed in accordance with one of the methods approved by the Department.

Ammonia monitoring is required year round to determine compliance with ammonia limits. Ammonia monitoring is also required because the permit allows for $CBOD_5$ monitoring rather than BOD_5. $CBOD_5$ only measures the oxygen demand due to the carbonaceous material. It does not measure the nitrogenous demand which largely consists of ammonia being converted to nitrate and nitrite. Monitoring must be performed on the same samples as $CBOD_5$ so the Department proposes monitoring at once per week.

The dissolved oxygen concentration in the effluent must be monitored twice per week to demonstrate compliance with the effluent limit for dissolved oxygen.

Temperature monitoring of the effluent is required year round. The permittee will also be required to calculate the weekly average and monthly average of the daily maximum effluent temperatures. Calculating the thermal load discharged is not required since the discharge volume is limited by effluent temperature.

Outfall 002 (Recycled Water)

The proposed permit includes monitoring of the Class A recycled water that is produced and distributed. Monitoring includes volume, chlorine used and residual, pH and nutrients (total Kjeldahl nitrogen, ammonia, nitrate plus nitrite and total phosphorus). When producing Class A recycled water, total coliform must be monitored daily and turbidity must be monitored each hour.

All monitoring frequencies are in accordance with Department rules and guidance. Schedule B also requires an annual report describing the effectiveness of the recycled water system.

Biosolids
The permittee must monitor and report the depth of sludge in the facultative sludge lagoon on an annual basis.

Reporting
The reporting period is the calendar month. Discharge monitoring reports must be submitted to the Department monthly by the 15th day of the following month. The monitoring reports need to identify the principal operators designated by the Permittee to supervise the treatment and collection systems. The reports must also include records concerning application of biosolids and all applicable equipment breakdowns and bypassing.

Schedule B of the permit includes the requirement for the submittal of two annual reports. The permittee must submit an annual report on inflow and infiltration reduction activities and a report on the recycled water system.

Schedule C, Compliance Schedules and Conditions

The permit contains no compliance conditions with deadlines.

Schedule D - Special Conditions

The permit contains eight special conditions. The requirements include:

This permit includes two conditions regarding biosolids. All biosolids must be managed in accordance with the approved biosolids management plan and all biosolids application sites must meet the site selection criteria. The permit may be modified to incorporate changes in federal biosolids standards.

This permit includes two conditions regarding recycled water. The permittee must meet the requirements for use of recycled water under OAR 340-055. The permittee must maintain a deep-rooted, permanent grass cover on the land irrigation area unless otherwise approved in writing by the Department.

The fifth condition specifies that the facilities must be supervised by personnel certified by the Department in the operation of treatment and/or collection systems.

The sixth condition states the permittee must notify the Department of malfunctions.

The seventh condition states the permittee will not be required to perform a hydrogeologic characterization or groundwater monitoring during the term of this permit.

The last condition says the irrigation of recycled water on the plant grounds is exempt from regulation under OAR 340-055 provided the recycled water receives secondary treatment and disinfection. Irrigation must be conducted using sound irrigation practices.

Schedule F, NPDES General Conditions

All NPDES permits issued in the State of Oregon contain certain conditions that remain the same regardless of the type of discharge and the activity causing the discharge. These conditions are called

General Conditions. These conditions can be changed or modified only on a statewide basis. The General Conditions were revised in 2008. A summary of the changes is as follows:

- There are additional citations to the federal Clean Water Act and CFR, including references to standards for sewage sludge use or disposal.
- There is additional language regarding federal penalties.
- Bypass language has been made consistent with the Code of Federal Regulations.
- Overflow language has been modified.
- Requirements regarding emergency response and public notification plans have been made more explicit.
- Language pertaining to duty to provide information has been made more explicit.
- Confidentiality of information is addressed.

Section A contains standard conditions which include compliance with the permit, assessment of penalties, mitigation of noncompliance, permit renewal application, enforcement actions, toxic discharges, property rights and referenced rules and statutes. Section B contains requirements for operation and maintenance of the pollution control facilities. This section includes conditions for proper operation and maintenance, duty to halt or reduce activity in order to maintain compliance, bypass of treatment facilities, upset conditions, treatment of single operational events, overflows from wastewater conveyance systems and associated pump stations, public notification of effluent violation or overflow, and disposal of removed substances. Section C contains requirements for monitoring and reporting. This section includes conditions for representative sampling, flow measurement, monitoring procedures, penalties of tampering, reporting of monitoring results, additional monitoring by the permittee, averaging of measurements, retention of records, contents of records, and inspection and entry. Section D contains reporting requirements and includes conditions for reporting planned changes, anticipated noncompliance, permit transfers, progress on compliance schedules, noncompliance which may endanger public health or the environment, other noncompliances, and other information. Section D also contains signatory requirements and the consequences of falsifying reports. Section E contains the definitions used throughout the permit.

PERMIT PROCESSING/PUBLIC COMMENT/APPEAL PROCESS

The beginning and end date of the public comment period to receive written comments regarding this permit, and the contact name and telephone number are included in the public notice. The permittee is the only party having standing to file a permit appeal. If the Permittee is dissatisfied with the conditions of the permit when issued, they may request a hearing before the EQC or its designated hearing officer, within 20 days of the final permit being mailed. The request for hearing must be sent to the Director of the Department. Any hearing held shall be conducted pursuant to regulations of the Department.

APPENDIX A

Abbreviations

ADWF - average dry weather flow
AWWF - average wet weather flow
BOD - biochemical oxygen demand
CBOD - carbonaceous biochemical oxygen demand
CFR - Code of Federal Regulations
CFS - cubic feet per second
City - City of Coburg
Department or DEQ - Oregon Department of Environmental Quality
DO - dissolved oxygen
EIC - East Irrigation Canal
EQC - Environmental Quality Commission
FSL - facultative sludge lagoon
IGDO - Intergravel dissolved oxygen
I/I - inflow and infiltration
LA - load allocations
MBR - membrane bioreactor
MCIP - Muddy Creek Irrigation Project
MGD - million gallons per day
ML - Minimum Level
MWMC - Metropolitan Wastewater Management Commission
NPDES - National Pollutant Discharge Elimination System
NTU - nephelometric turbidity units
OAR - Oregon Administrative Rules
ORS - Oregon Revised Statutes
RPA - reasonable potential analysis
STEP - septic tank effluent pumping
TMDL - Willamette Total Maximum Daily Load
TSS - total suspended solids
UGB - urban growth boundary
WLA - Waste Load Allocations

APPENDIX B

Figure 1 – Location Photo

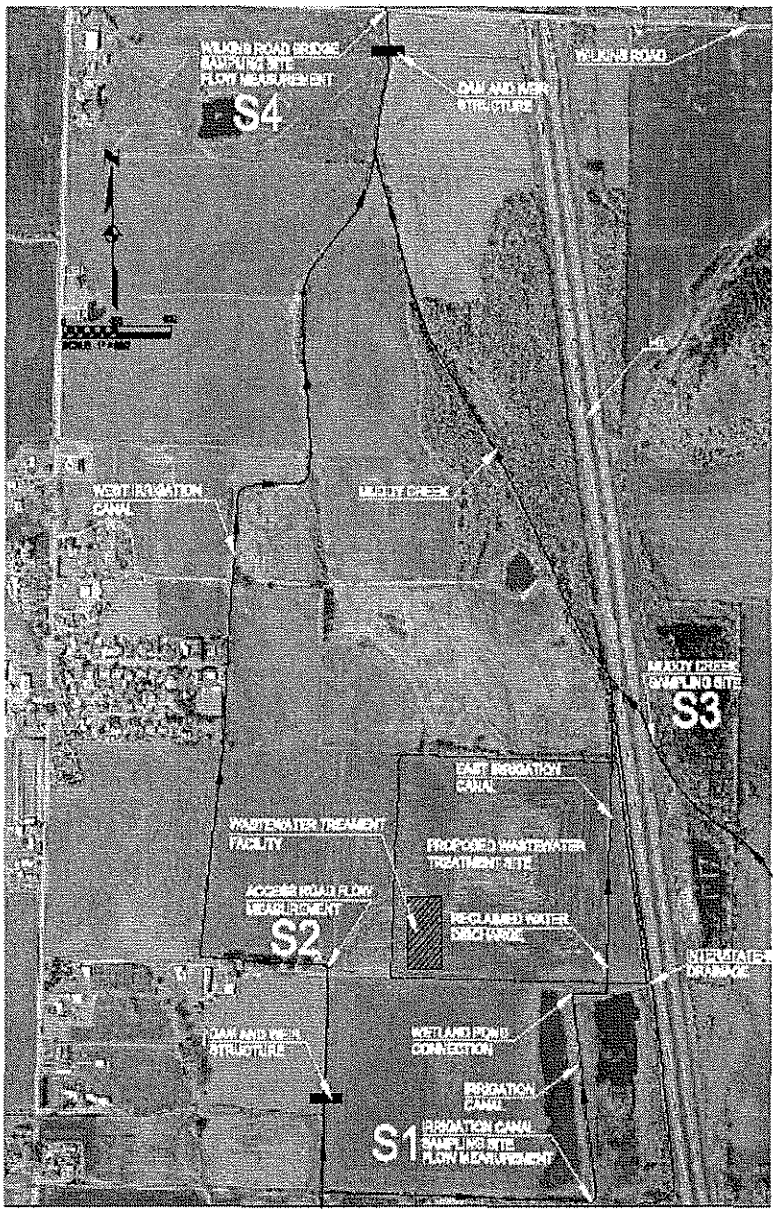


Figure 2 – Facility Schematic

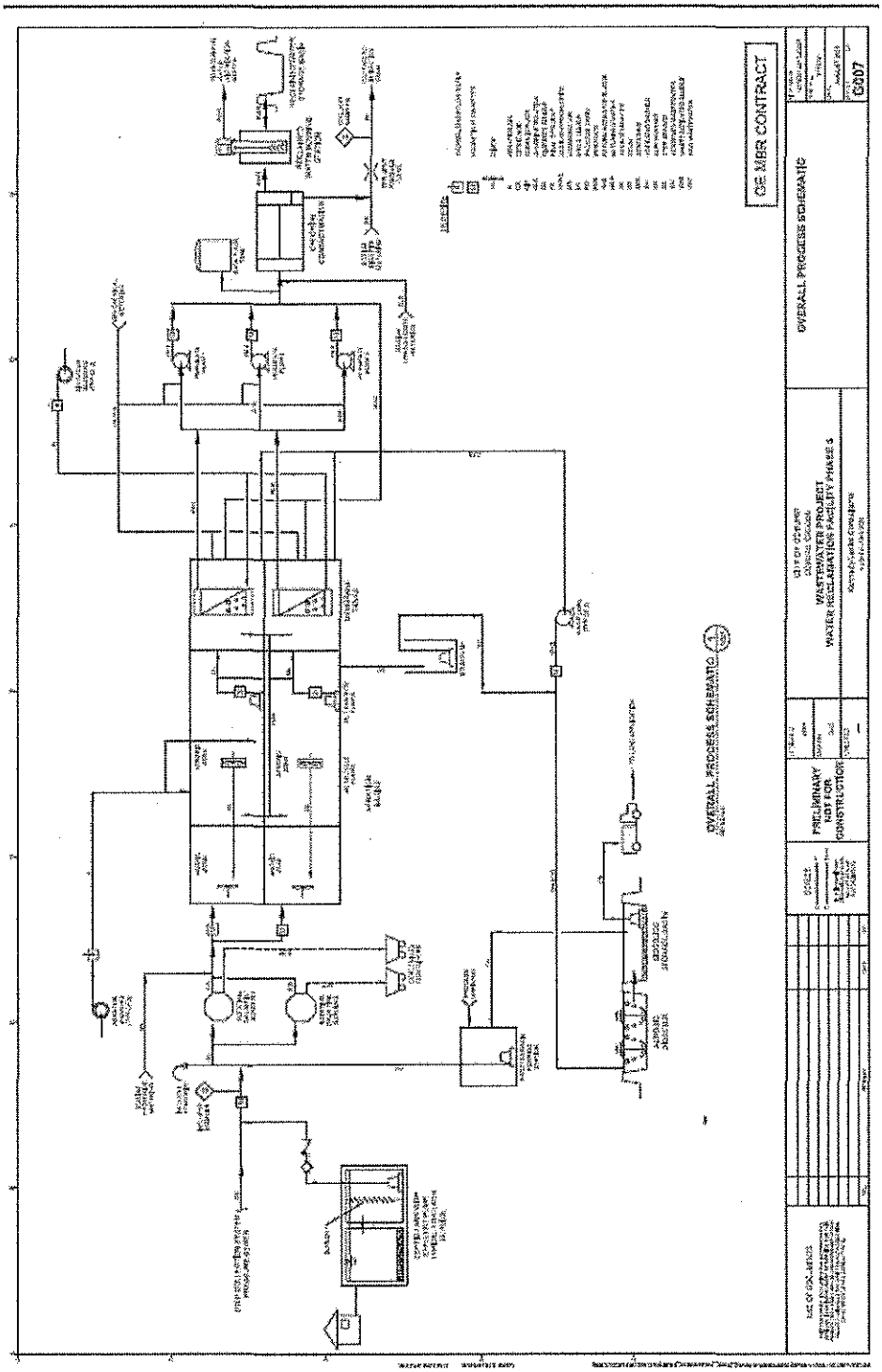


Figure 3 – Irrigation Flow vs Wastewater Flow

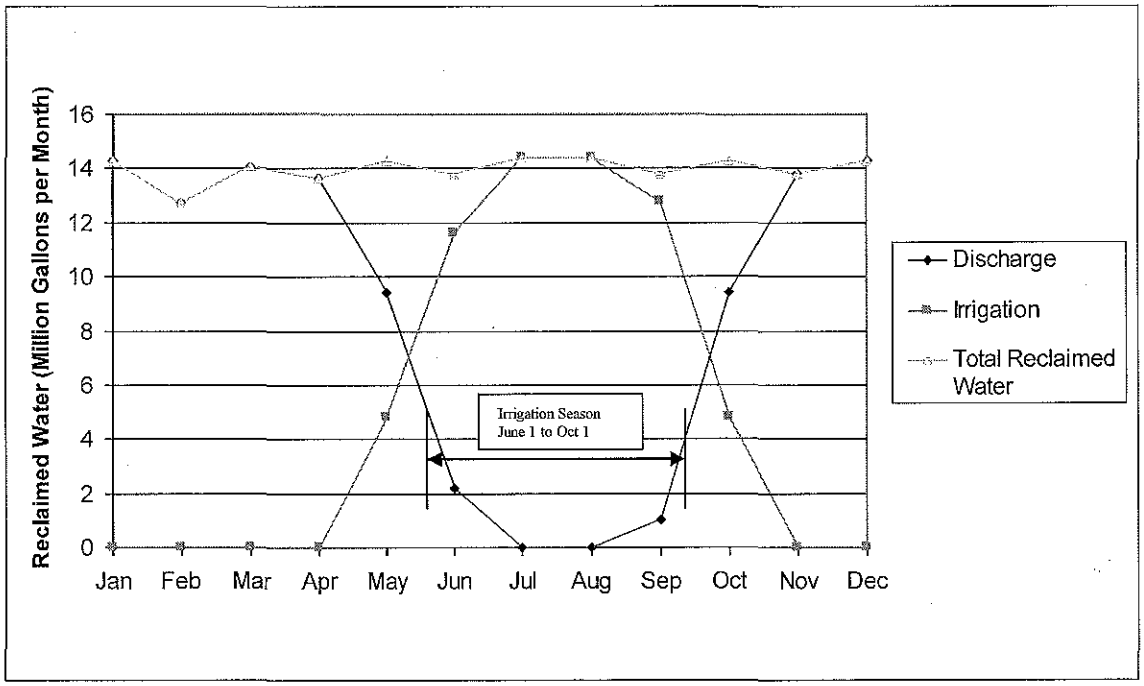


Figure 4 – Stream and Effluent Temperatures

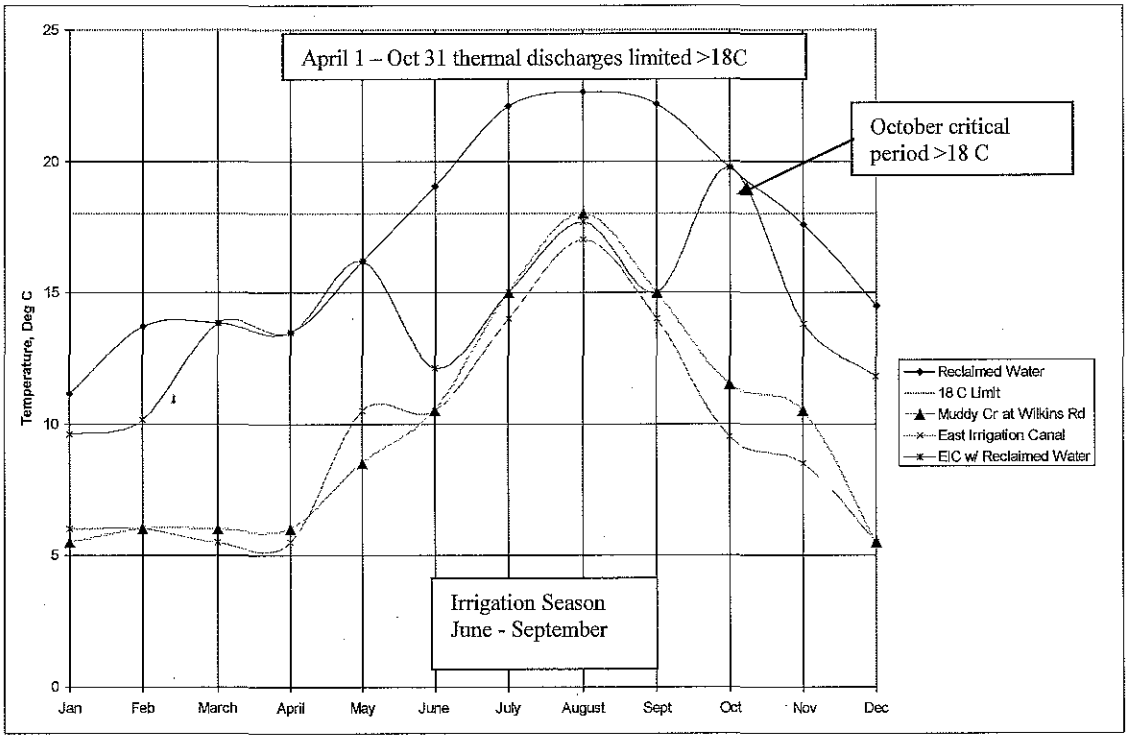


Figure 5

Muddy Creek Dissolved Oxygen (at I-5)

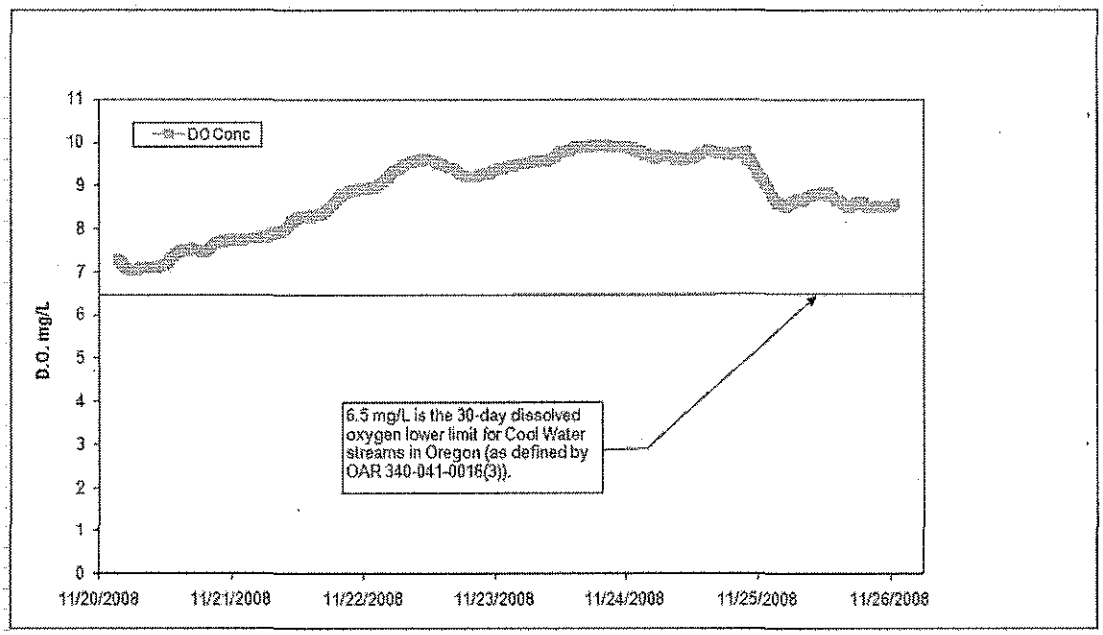
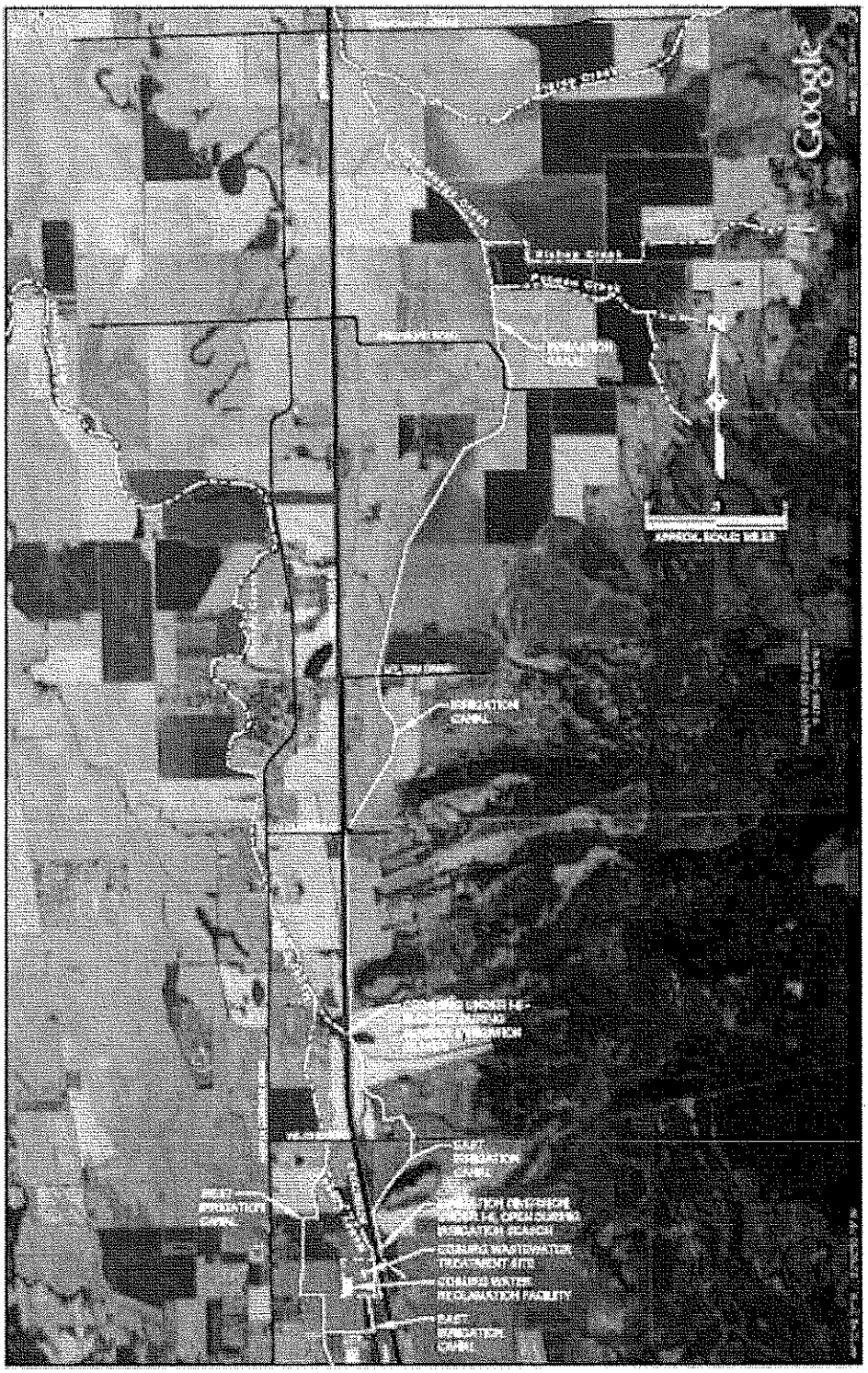


Figure 6

Muddy Creek and Irrigation Canal System



APPENDIX C

Attachment #1

Coburg Wastewater Project, Water Quality Monitoring Data

Water Quality Parameter	Units	Exceedance Limit	East Irrigation Canal (S1) 8/30/2007	9/13/2007	9/27/2007	10/11/2007	10/25/2007	11/8/2007	11/19/2007	12/11/2007
Ammonia-N	mg/L	0.3	ND	ND	ND	NM	ND	NM	ND	NM
BOD	mg/L	2	ND	ND	ND	ND	ND	2	ND	ND
Total Dissolved Solids	mg/L	10	N/A	65	58	107	106	235	63	200
Dissolved Oxygen (DO)	mg/L	6.5	7.1	5.5	10.3	7.1	7.5	6.2	3.1	9.1
DO percent of saturation	%	NA	74%	57%	59%	64%	65%	54%	80%	75%
pH	N/A	NA	7.6	7.6	8.6	7.2	7.1	7.5	6.7	7.2
Phosphorus, Total	mg/L	0.1	ND	ND	ND	NM	ND	NM	ND	NM
Total Kjeldahl Nitrogen	mg/L	0.3	0.5	ND	ND	NM	0.5	NM	0.5	NM
Turbidity	NTU	0.2	2.7	4	2.4	48	6.2	15	25	6.2
Conductivity	umho/cm	1	79	NM	NM	NM	NM	NM	NM	NM
Saturation DO	mg/L	N/A	9.54	9.75	10.64	11.02	11.5	11.55	11.41	12.45
Temperature	deg C	0.5	17	16	12	10.5	8.5	8.5	9	5.5
Flow	cfs		5.4	4.9	5.1	0	0	0	4.21	0

NM = No Measurement Taken
ND = Non-Detection
No flow data collected on Muddy Creek at I-5 -- this location is not suitable for flow measurements
Flow on Muddy Cr at I-5 can be estimated as the Muddy Cr flow at Wilkins Rd less East and West irrigation canal flows.

Water Quality Parameter	Units	Exceedance Limit	West Irrigation Canal (S2) 8/30/2007	9/13/2007	9/27/2007	10/11/2007	10/25/2007	11/8/2007	11/19/2007	12/11/2007
Temperature	deg C	0.5	NM	15	unknown	11.5	11.5	10.3	11	7
Flow	cfs		31.1	27.4	NM	1.7	0.0	0.11	3.31	3.35

Water Quality Parameter	Units	Exceedance Limit	Muddy Creek at I-5 (S3) 8/30/2007	9/13/2007	9/27/2007	10/11/2007	10/25/2007	11/8/2007	11/19/2007	12/11/2007
Ammonia-N	mg/L	0.3	ND	ND	ND	NM	ND	NM	ND	NM
BOD	mg/L	2	ND	ND	ND	NM	ND	NM	ND	NM
Total Dissolved Solids	mg/L	10	N/A	77	73	NM	105	NM	184	NM
Dissolved Oxygen (DO)	mg/L	6.5	4.5	6.4	6.0	5.2	7.6	4.9	9.5	11.2
DO percent of saturation	%	NA	51%	67%	55%	51%	63%	45%	83%	88%
pH	N/A	NA	7.2	7.2	7.2	NM	7.9	NM	7.2	NM
Phosphorus, Total	mg/L	0.1	0.1	ND	ND	NM	0.1	NM	0.2	NM
Total Kjeldahl Nitrogen	mg/L	0.3	0.6	ND	ND	NM	0.7	NM	1	NM
Turbidity	NTU	0.2	25	24	56	NM	27	NM	53	NM
Conductivity	umho/cm	1	15	NM	NM	NM	NM	NM	NM	NM
Saturation DO	mg/L	N/A	8.58	9.54	10.4	10.76	11.02	11.28	11.41	12.78
Temperature	deg C	0.5	20	17	13	11.5	10.5	9.5	9	4.5
Flow	cfs		NM	NM	NM	NM	NM	NM	NM	NM
Computed Flow	cfs		3.3	-1.5	0.7	0.4	3.1	1.4	151.7	3.7

Water Quality Parameter	Units	Exceedance Limit	Muddy Creek at Wilkins Road (S4) 8/30/2007	9/13/2007	9/27/2007	10/11/2007	10/25/2007	11/8/2007	11/19/2007	12/11/2007
Ammonia-N	mg/L	0.3	ND	ND	ND	NM	ND	NM	0.4	NM
BOD	mg/L	2	ND	ND	ND	ND	ND	ND	5	ND
Total Dissolved Solids	mg/L	10	N/A	66	36	134	130	420	400	106
Dissolved Oxygen (DO)	mg/L	6.5	7.0	5.4	5.7	7.2	0.0	6.9	0.0	10.7
DO percent of saturation	%	NA	83%	58%	55%	67%	84%	62%	77%	86%
pH	N/A	NA	7.6	7.6	7.7	7.4	7.4	7.4	7.2	7.4
Phosphorus, Total	mg/L	0.1	ND	ND	ND	NM	ND	NM	0.3	NM
Total Kjeldahl Nitrogen	mg/L	0.3	ND	0.5	0.0	NM	0.7	NM	1.7	NM
Turbidity	NTU	0.2	5.4	5.1	22	27	21	16	58	23
Conductivity	umho/cm	1	79	NM	NM	NM	NM	NM	NM	NM
Saturation DO	mg/L	N/A	9.35	9.64	10.4	10.76	10.89	11.15	11.41	12.45
Temperature	deg C	0.5	18	16.5	13	11.5	11	10	9	5.5
Flow	cfs		35.9	30.4	30.0	2.1	3.3	1.39	105.75	11.32

Coburg Wastewater Project, Water Quality Monitoring Data

		Reporting	art Irrigation Canal (S							
Water Quality Para	Units	Limit	########	1/16/2008	2/1/2008	2/15/2008	3/5/2008	4/1/2008	5/7/2008	6/5/2008
Ammonia-N	mg/L	0.3	ND	NM	ND	NM	ND	NM	NM	ND
BOD	mg/L	2	ND	ND	ND	7	ND	NM	NM	ND
Total Dissolved Solids	mg/L	10	186	188	124	191	212	NM	NM	46
Dissolved Oxygen (DO)	mg/L	0.5	9.5	8.3	9.3	9.7	10.1	8.5	9.0	9.4
DO percent of saturation	%	NA	77%	68%	70%	78%	81%	68%	82%	85%
pH	N/A	NA	7.1	7.1	7	7.1	7.4	NM	NM	7.2
Phosphorus, Total	mg/L	0.1	ND	NM	ND	NM	ND	NM	NM	ND
Total Kjeldahl Nitrogen	mg/L	0.3	0.7	NM	0.9	NM	1.1	NM	NM	0.5
Turbidity	NTU	0.2	17	6.5	34	5.1	8.5	NM	NM	3.5
Conductivity	umhos/cm	1	N/A	NM	NM	NM	NM	NM	NM	NM
Saturation DO	mg/L	N/A	12.29	12.29	11.99	12.45	12.45	12.45	11.02	11.02
Temperature	deg C	0.5	6	6	7	5.5	5.5	5.5	10.5	10.5
Flow	cfs		0.36	0.27	1.24	0	0	0	0	2.34

[illegible]
[illegible]

No flow data collected on Muddy Creek at I-5 -- this location is not suitable for flow measurements
Flow on Muddy Cr at I-5 can be estimated as the Muddy Cr flow at Wilkins Rd less East and West irrigation canal flow.

		Reporting	art Irrigation Canal (S							
Water Quality Parameter		Limit	########	1/16/2008	2/1/2008	2/15/2008	3/5/2008	4/1/2008	5/7/2008	6/5/2008
Temperature	deg C	0.5	7.5	7.5	7.5	9	9	9.5	12.5	10
Flow	cfs		5.55	6.31	12.45	7.57	0.94	2.92	2.43	37.06

		Reporting	Muddy Creek at I-5 (S3							
Water Quality Para	Units	Limit	########	1/16/2008	2/1/2008	2/15/2008	3/5/2008	4/1/2008	5/7/2008	6/5/2008
Ammonia-N	mg/L	0.3	ND	NM	ND	NM	ND	NM	NM	ND
BOD	mg/L	2	ND	NM	ND	NM	ND	NM	NM	ND
Total Dissolved Solids	mg/L	10	97	NM	88	NM	106	NM	NM	106
Dissolved Oxygen (DO)	mg/L	0.5	11.8	10.2	11.3	12	10.1	9	9.4	9
DO percent of saturation	%	NA	91%	79%	90%	95%	79%	71%	87%	84%
pH	N/A	NA	7.4	NM	7.5	NM	7.7	NM	NM	7.5
Phosphorus, Total	mg/L	0.1	ND	NM	0.1	NM	ND	NM	NM	ND
Total Kjeldahl Nitrogen	mg/L	0.3	0.5	NM	0.7	NM	1.0	NM	NM	0.9
Turbidity	NTU	0.2	29	NM	44	NM	25	NM	NM	3.5
Conductivity	umhos/cm	1	N/A	NM	NM	NM	NM	NM	NM	NM
Saturation DO	mg/L	N/A	12.94	12.94	12.61	12.61	12.78	12.61	10.76	10.76
Temperature	deg C	0.5	4	4	5	5	4.5	5	11.5	11.5
Flow	cfs		NM	NM	NM	NM	NM	NM	NM	NM
Computed Flow	cfs		31.7	31.1	124.5	15.9	8.3	21.2	21.7	15.1

		Reporting	Muddy Creek at Wilkins Road (S4)							
Water Quality Para	Units	Limit	########	1/16/2008	2/1/2008	2/15/2008	3/5/2008	4/1/2008	5/7/2008	6/5/2008
Ammonia-N	mg/L	0.3	ND	NM	ND	NM	ND	NM	NM	0.3
BOD	mg/L	2	ND	ND	ND	ND	ND	NM	NM	ND
Total Dissolved Solids	mg/L	10	106	98	96	96	120	NM	NM	60
Dissolved Oxygen (DO)	mg/L	0.5	11.6	11.1	11.1	11.9	11.1	9.8	9.8	9.5
DO percent of saturation	%	NA	93%	89%	89%	96%	90%	72%	85%	85%
pH	N/A	NA	7.3	7.3	7.4	7.4	7.6	NM	NM	7.5
Phosphorus, Total	mg/L	0.1	0.1	NM	0.1	NM	ND	NM	NM	ND
Total Kjeldahl Nitrogen	mg/L	0.3	0.5	NM	0.6	NM	1.2	NM	NM	0.9
Turbidity	NTU	0.2	28	24	42	22	22	NM	NM	3.5
Conductivity	umhos/cm	1	N/A	NM	NM	NM	NM	NM	NM	NM
Saturation DO	mg/L	N/A	12.45	12.45	12.45	12.29	12.29	12.29	11.55	11.02
Temperature	deg C	0.5	5.5	5.5	5.5	6	6	6	8.5	10.5
Flow	cfs		37.65	37.65	138.37	23.42	9.28	24.16	24.16	55.54

Attachment #2 – Thermal Plume Reasonable Potential

Enter data into white cells below:		
7Q10 =	2.2 cfs	
Ambient Temperature or Criterion	18 °C	
Effluent Flow =	0.015 mgd	
Effluent Temperature	25 °C	
25% of 7Q10 =	0.55 cfs	
25% dilution =	24.7 dilution = (Qe+Qr)/Qe	
Temperature at 25% cross section =	18.28 °C	No Reasonable Potential

Attachment #3a – Ammonia RPA, 11°C and 13°C

Facility Name: Coburg STP — Date: 1/29/2009

Dilution Values? (Y/N)	Y	calculated
11° c Dilution @ ZID (1Q10)	1	*
Dilution @ MZ (7Q10)	1	*
Dilution @ MZ (30Q5)	1	*
13° c Dilution @ ZID (1Q10)	1	*
Dilution @ MZ (7Q10)	1	*
Dilution @ MZ (30Q5)	1	*

Enter data below if no dilution data is available

Data to estimate dilution	11° c	13° c
Effluent Flow (mgd) =	0.44	0.44
1Q10 (CFS) =	*	*
7Q10 (CFS) =	*	*
30Q5 (CFS) =	*	*
% dilution at MZ =	*	*
% dilution at ZID =	*	*

Confidence Level =	99%
Probability Basis =	95%

	Effluent	Stream	Mixed		
11°c			ZID	MZ	
pH * =	7.6	7.6	7.6	7.6	(6.5-9)
Temp * =	11	11	11.0	11.0	° C
Alkalinity =	75	75			
Salmonids Present? (Y/N)		Y			
Salmonid Spawning? (Y/N)		n			
Fresh Water ? (Y/N)		Y			
Salinity (ppt)	0	0	0.0	0.0	
13°c					
pH * =	7.6	7.6	7.6	7.6	(6.5-9)
Temp * =	13	13	13.0	13.0	° C
Alkalinity =	75	75			
Salmonids Present? (Y/N)		Y			
Salmonid Spawning? (Y/N)		n			
Fresh Water ? (Y/N)		Y			
Salinity (ppt)	0	0	0.0	0.0	

PARAMETER	# of Samples	Highest Conc. mg/l	Coef. of Variance	Calculated Maximum Conc. mg/l	Background Conc. mg/l	Maximum Conc. at ZID mg/l	Maximum Conc. at MZ mg/l	WQ CRITERIA Acute (CMC) mg/l	Chronic (CCC) mg/l	REASONABLE POTENTIAL ? ACUTE	CHRONIC
11° c											
AMMONIA - Existing*	52	2.0	0.60	2.40	0.15	2.40	2.40	11.1	1.8	NO	YES
*AMMONIA - Proposed 1hr/4day**	52	2.0	0.60	2.40	0.15	2.40	2.40	11.4	12.5	NO	NO
*AMMONIA - Proposed 30day**	52	2.0	0.60	2.40	0.15	n/a	2.400	n/a	5.0	n/a	NO
13° c											
AMMONIA - Existing*	52	2.0	0.60	2.40	0.15	2.40	2.40	10.9	1.8	NO	YES
*AMMONIA - Proposed 1hr/4day**	52	2.0	0.60	2.40	0.15	2.40	2.40	11.4	11.0	NO	NO
*AMMONIA - Proposed 30day**	52	2.0	0.60	2.40	0.15	n/a	2.40	n/a	4.4	n/a	NO

Attachment #3b – Ammonia RPA, 15°C and 17°C

Facility Name: Coburg STP — Date: 1/29/2009

Dilution Values? (Y/N)	Y	calculated
15° c Dilution @ ZID (1Q10)	1	*
Dilution @ MZ (7Q10)	1	*
Dilution @ MZ (30Q5)	1	*
17° c Dilution @ ZID (1Q10)	1	*
Dilution @ MZ (7Q10)	1	*
Dilution @ MZ (30Q5)	1	*

Enter data below if no dilution data is available

Data to estimate dilution	15° c	17° c
Effluent Flow (mgd) =	0.44	0.44
1Q10 (CFS) =	*	*
7Q10 (CFS) =	*	*
30Q5 (CFS) =	*	*
% dilution at MZ =	*	*
% dilution at ZID =	*	*

Confidence Level =	99%
Probability Basis =	95%

	Effluent	Stream	Mixed		
15°c			ZID	MZ	
pH * =	7.6	7.6	7.6	7.6	(6.5-9)
Temp * =	15	15	15.0	15.0	° C
Alkalinity =	75	75			
Salmonids Present? (Y/N)		Y			
Salmonid Spawning? (Y/N)		n			
Fresh Water ? (Y/N)		Y			
Salinity (ppt)	0	0	0.0	0.0	
17°c					
pH * =	7.6	7.6	7.6	7.6	(6.5-9)
Temp * =	17	17	17.0	17.0	° C
Alkalinity =	75	75			
Salmonids Present? (Y/N)		Y			
Salmonid Spawning? (Y/N)		n			
Fresh Water ? (Y/N)		Y			
Salinity (ppt)	0	0	0.0	0.0	

PARAMETER	# of Samples	Highest Conc. mg/l	Coef. of Variance	Calculated Maximum Conc. mg/l	Background Conc. mg/l	Maximum Conc. at ZID mg/l	Maximum Conc. at MZ mg/l	WQ CRITERIA Acute (CMC) mg/l	Chronic (CCC) mg/l	REASONABLE POTENTIAL ? ACUTE	CHRONIC
15° c											
AMMONIA - Existing*	52	2.0	0.60	2.40	0.15	2.40	2.40	10.8	1.8	NO	YES
*AMMONIA - Proposed 1hr/4day**	52	2.0	0.60	2.40	0.15	2.40	2.40	11.4	9.6	NO	NO
*AMMONIA - Proposed 30day**	52	2.0	0.60	2.40	0.15	n/a	2.400	n/a	3.9	n/a	NO
17° c											
AMMONIA - Existing*	52	2.0	0.60	2.40	0.15	2.40	2.40	10.7	1.5	NO	YES
*AMMONIA - Proposed 1hr/4day**	52	2.0	0.60	2.40	0.15	2.40	2.40	11.4	8.5	NO	NO
*AMMONIA - Proposed 30day**	52	2.0	0.60	2.40	0.15	n/a	2.40	n/a	3.4	n/a	NO

Attachment #3c – Ammonia RPA, 19°C and 21°C

Facility Name: Coburg STP — Date: 1/29/2009

Dilution Valid(s)? (Y/N)	Y	calculated
19° c Dilution @ ZID (1Q10)	1	*
Dilution @ MZ (7Q10)	1	*
Dilution @ MZ (30Q5)	1	*
21° c Dilution @ ZID (1Q10)	1	*
Dilution @ MZ (7Q10)	1	*
Dilution @ MZ (30Q5)	1	*
Enter data below if no dilution data is available		
Data to estimate dilution	**19° c**	**21° c**
Effluent Flow (mgd) =	0.44	0.44
1Q10 (CFS) =	*	*
7Q10 (CFS) =	*	*
30Q5 (CFS) =	*	*
% dilution at MZ =	*	*
% dilution at ZID =	*	*
Confidence Level =	99%	
Probability Basis =	95%	

	Effluent	Stream	Mixed		
19°c			ZID	MZ	
pH * =	7.6	7.6	7.6	7.6	(6.5-9)
Temp * =	19	19	19.0	19.0	° C
Alkalinity =	75	75			
Salmonids Present? (Y/N)		Y			
Salmonid Spawning? (Y/N)		n			
Fresh Water ? (Y/N)		Y			
Salinity (ppt)	0	0	0.0	0.0	
21°c					
pH * =	7.6	7.6	7.6	7.6	(6.5-9)
Temp * =	21	21	21.0	21.0	° C
Alkalinity =	75	75			
Salmonids Present? (Y/N)		Y			
Salmonid Spawning? (Y/N)		n			
Fresh Water ? (Y/N)		Y			
Salinity (ppt)	0	0	0.0	0.0	

PARAMETER	# of Samples	Highest Conc. mg/l	Coef. of Variance	Calculated Maximum Conc. mg/l	Background Conc. mg/l	Maximum Conc. at ZID mg/l	Maximum Conc. at MZ mg/l	WQ CRITERIA Acute (CMC) mg/l	Chronic (CCC) mg/l	REASONABLE POTENTIAL ? ACUTE	CHRONIC
19° c											
AMMONIA - Existing*	52	2.0	0.60	2.40	0.15	2.40	2.40	10.6	1.3	NO	YES
*AMMONIA - Proposed 1hr/4day**	52	2.0	0.60	2.40	0.15	2.40	2.40	11.4	7.4	NO	NO
*AMMONIA - Proposed 30day**	52	2.0	0.60	2.40	0.15	n/a	2.400	n/a	3.0	n/a	NO
21° c											
AMMONIA - Existing*	52	2.0	0.60	2.40	0.15	2.40	2.40	9.8	1.2	NO	YES
*AMMONIA - Proposed 1hr/4day**	52	2.0	0.60	2.40	0.15	2.40	2.40	11.4	6.5	NO	NO
*AMMONIA - Proposed 30day**	52	2.0	0.60	2.40	0.15	n/a	2.40	n/a	2.6	n/a	NO

Attachment #3d – Ammonia RPA, 23°C and 25°C

Facility Name: Coburg STP — Date: 1/29/2009

Dilution Valid(s)? (Y/N)	Y	calculated
23° c Dilution @ ZID (1Q10)	1	*
Dilution @ MZ (7Q10)	1	*
Dilution @ MZ (30Q5)	1	*
25° c Dilution @ ZID (1Q10)	1	*
Dilution @ MZ (7Q10)	1	*
Dilution @ MZ (30Q5)	1	*
Enter data below if no dilution data is available		
Data to estimate dilution	**23° c**	**25° c**
Effluent Flow (mgd) =	0.44	0.44
1Q10 (CFS) =	*	*
7Q10 (CFS) =	*	*
30Q5 (CFS) =	*	*
% dilution at MZ =	*	*
% dilution at ZID =	*	*
Confidence Level =	99%	
Probability Basis =	95%	

	Effluent	Stream	Mixed		
23°c			ZID	MZ	
pH * =	7.6	7.6	7.6	7.6	(6.5-9)
Temp * =	23	23	23.0	23.0	° C
Alkalinity =	75	75			
Salmonids Present? (Y/N)		Y			
Salmonid Spawning? (Y/N)		n			
Fresh Water ? (Y/N)		Y			
Salinity (ppt)	0	0	0.0	0.0	
25°c					
pH * =	7.6	7.6	7.6	7.6	(6.5-9)
Temp * =	25	25	25.0	25.0	° C
Alkalinity =	75	75			
Salmonids Present? (Y/N)		Y			
Salmonid Spawning? (Y/N)		n			
Fresh Water ? (Y/N)		Y			
Salinity (ppt)	0	0	0.0	0.0	

PARAMETER	# of Samples	Highest Conc. mg/l	Coef. of Variance	Calculated Maximum Conc. mg/l	Background Conc. mg/l	Maximum Conc. at ZID mg/l	Maximum Conc. at MZ mg/l	WQ CRITERIA Acute (CMC) mg/l	Chronic (CCC) mg/l	REASONABLE POTENTIAL ? ACUTE	CHRONIC
23° c											
AMMONIA - Existing*	52	2.0	0.60	2.40	0.15	2.40	2.40	8.5	1.0	NO	YES
*AMMONIA - Proposed 1hr/4day**	52	2.0	0.60	2.40	0.15	2.40	2.40	11.4	5.8	NO	NO
*AMMONIA - Proposed 30day**	52	2.0	0.60	2.40	0.15	n/a	2.400	n/a	2.3	n/a	YES
25° c											
AMMONIA - Existing*	52	2.0	0.60	2.40	0.15	2.40	2.40	7.4	0.9	NO	YES
*AMMONIA - Proposed 1hr/4day**	52	2.0	0.60	2.40	0.15	2.40	2.40	11.4	5.1	NO	NO
*AMMONIA - Proposed 30day**	52	2.0	0.60	2.40	0.15	n/a	2.40	n/a	2.0	n/a	YES

Attachment #4 – Operator Certification Worksheet

Wastewater System Classification Worksheet for Operator Certification
OAR 340-049-0020

General Requirements (OAR 340-049-0015) - Each owner of a regulated wastewater system must have its system supervised by one or more operators who hold a valid certificate for the type of system, wastewater treatment or collection, at a grade equal to or greater than the wastewater system classification as defined in OAR 340-049-0020 and 0025. Because classification establishes the operator certificate type and grade required for compliance, it must be determined prior to start-up of a new or upgraded facility.

Wastewater treatment system classifications are derived from the total points assigned based on criteria shown in OAR 340-049-0025 (see Step 1 of the worksheet). Pursuant to OAR 340-049-0020(4), if the complexity of a treatment system is not reflected in 0025, DEQ may classify a system higher as long as the designation is consistent with the intent of the classification system (see Step 2 of the worksheet).

Collection system classifications are based on a service area design population to be handled by the wastewater treatment facility (see footnote on page 1 of worksheet). Like treatment, if deemed appropriate, DEQ may classify the system higher than by population alone (OAR 340-049-0020(5)). For example, the design service area population for "X" Sanitary District is 1050 (Class I), but there are 300 aforementioned STEP or STEG units and a chemical feed system for control of hydrogen sulfide. A Class II designation may be appropriate to meet the intent of the classification system to establish minimum operator requirements for experience and knowledge.

Upon written notice to the wastewater system owner, DEQ may change the classification of a wastewater system and give the owner reasonable time to comply with requirements of the new classification (OAR 340-049-0020(6)). If you have any questions, please contact the Operator Certification Program office in The Dalles at (541) 298-7255 x35.

Classification of Wastewater Systems (OAR 340-049-0020) - All wastewater systems regulated under OAR 340-049 will be classified by DEQ as wastewater treatment systems and/or wastewater collection systems, as appropriate, in accordance with the following classification system:

Wastewater Treatment Systems	Wastewater Collection Systems
Class I - 30 total points or less	Class I - 1,500 or less design population
Class II - 31-55 total points	Class II - 1,501 to 15,000 design population
Class III - 56-75 total points	Class III - 15,001 to 50,000 design population
Class IV - 76 or more points	Class IV - 50,001 or more design population

Definitions used in these regulations unless otherwise required by context (see OAR 340-049-0010):

"Average Dry Weather Flow" (ADWF) means the design average dry weather flow capacity of the wastewater treatment system in gallons per day or Million Gallons per Day (MGD), as approved by the Department.

"Industrial Waste" means liquid wastes from an industrial or commercial process discharged into a wastewater system for conveyance and treatment.

"NPDES Permit" means a waste discharge permit issued in accordance with requirements and procedures of the National Pollutant Discharge Elimination System authorized by Section 402 of the Federal Clean Water Act and OAR 340, Division 45.

"Population" means the design population of the wastewater system represented as the number of people or the population equivalent the system is designed to serve. Equivalent population ordinarily is determined based on 70 gallons per person per day average dry weather flow (ADWF) or 0.17 lbs. BOD5 per person per day, whichever is greater.

"Wastewater" or "sewage" means the water-carried human or animal waste from residences, buildings, industrial establishments or other places, together with such groundwater infiltration and surface water as may be present. The admixture of domestic and industrial wastes or other by-products, such as sludge, is also considered wastewater or sewage.

"Wastewater Treatment System" or "Sewage Treatment System" means any structure, equipment, or process for treating and disposing of, or recycling or reusing wastewater and sludge (including industrial waste) that is discharged to the wastewater system.

"Wastewater Collection System" or "Sewage Collection System" means the trunks, arterials, pumps, pumping stations, piping and other appurtenances necessary to collect and carry away wastewater or other liquid waste treatable in a community or private wastewater treatment facility.

"Wastewater System" means "Sewage Treatment Works" defined in ORS 448.405 as any structure, equipment, or process required to collect, carry away and treat domestic waste and dispose of sewage as defined in ORS 454.010. Typically, components of a wastewater system include a wastewater collection system and a wastewater treatment system.

"WPCF Permit" means a Water Pollution Control Facilities permit to construct and operate a collection, treatment, and/or disposal system with no discharge to navigable waters.

Wastewater System Classification Worksheet for Operator Certification
OAR 340-049-0020

WW System Common Name: Coburg Wastewater Reclamation Facility

Facility ID: 115851 Location: North Coburg Road

Total Points (from page 3): 63.5 WWT Class (check): ☐ I ☐ II ☒ III ☐ IV

Design Population*: 6286 WWC Class (check): ☐ I ☒ II ☐ III ☐ IV

Design ADWF load (influent MGD) 0.44 Design BOD load (influent lbs/day) 930

Classified by: Mark Hamlin Date: February 17, 2009

Date this classification filed with the Operator Certification Office:

System start-up date for this classification (new, upgrade or expansion): New start up 2010?

Is this a change from a prior classification? (check): ☐ Yes ☐ No

STEP 1 - Criteria for Classifying Wastewater Treatment Systems (OAR 340-049-0025)

(1) Design Population or Population Equivalent Points (10 Points Maximum)

☐ Less than 750	0.5 points
☐ 751 to 2000	1 point
☐ 2001 to 5000	1.5 points
☒ 5001 to 10,000	2 points
☐ Greater than 10,000	3 points+1 pt. for ea. add. 10k
Part 1 Subtotal	2 points

(2) Average Dry Weather Flow (Design Capacity) Points (10 points Maximum)

☐ Less than 0.075 MGD	0.5 point
☐ Greater than 0.075 to 0.1 MGD	1 point
☒ Greater than 0.1 to 0.5 MGD	1.5 points
☐ Greater than 0.5 to 1.0 MGD	2 points
☐ Greater than 1.0 MGD	3 points+1 pt. for ea. add. MGD
Part 2 Subtotal	1.5 points

(3) Unit Process Points (Check all that apply)

Preliminary Treatment and Plant Hydraulics: See also STEP 2

☐ Comminution (cutter, shredder, grinder, barscreen, etc.)	1 point
☐ Grit Removal, gravity	1 point
☐ Grit Removal, mechanical	2 points
☒ Screen(s), in-situ or mechanical (coarse solids only)	1 point
☐ Pump/Lift Station(s) (pumping of main flow)	2 points
☐ Flow Equalization (any type)	1 point
Subtotal	1 points

Primary Treatment:

☒ Community Septic Tank(s) (STEP, STEG, etc)	2 points
☐ Clarifier(s)	5 points
☐ Flotation Clarifier(s)	7 points
☐ Chemical Addition System	2 points
☐ Imhoff Tanks, (large septic tank or similar sedimentation & digestion)	3 points
Subtotal	2 points
Page 1 Subtotal	6.5 points

* See "Population" definition. Use the design average daily equivalent load per person for influent Flow or influent BOD5, whichever is greater. This value is used to determine the Collection System Classification.

Wastewater System Classification Worksheet

Unit Process Points – Continued (Check all that apply)

Secondary, Advanced, and Tertiary Treatment See also STEP 2:

☐	Low Rate Trickling Filter(s) (no recirculation)	7 points
☐	High Rate Trickling Filter(s) (recirculation)	10 points
☐	Trickling Filter - Solids Contact System	12 points
☒	Activated Sludge (includes SBR & basic MBR process)	15 points
☐	Pure Oxygen Activated Sludge	20 points
☐	Activated Bio Filter Tower less than 0.1 MGD	6 points
☐	Activated Bio Filter Tower greater than 0.1 MGD	12 points
☐	Rotating Biological Contactors 1 to 4 shafts	7 points
☐	Rotating Biological Contactors, 5 or more shafts	12 points
☐	Stabilization Lagoons, 1 to 3 cells without aeration	5 points
☐	Stabilization Lagoons, 1 or more cells with primary aeration	7 points
☐	Stabilization Lagoons, 2 or more cells with full aeration	9 points
☐	Recirculating Gravel Filter	7 points
☐	Chemical Precipitation Unit(s)	3 points
☐	Gravity Filtration Unit(s)	2 points
☐	Pressure Filtration Unit(s)	4 points
☐	Nitrogen Removal, Biological (BNR) or Chemical/Biological System	4 points
☒	Nitrogen Removal, Designed Extended Aeration Only (Nitrification)	2 points
☐	Phosphorus Removal Unit(s)	4 points
☐	Effluent Microscreen(s)	2 points
☐	Chemical Flocculation Unit(s)	3 points
☐	Chemical Addition System @ 2 points (describe): _____	____ points
	Subtotal	17 points

Solids Handling (Excludes long-term storage in lagoons above) See also STEP 2:

☐	Anaerobic Primary Sludge Digester(s) w/o Mixing and Heating	5 points
☐	Anaerobic Primary Sludge Digester(s) with Mixing and Heating	7 points
☐	Anaerobic Primary and Secondary Sludge Digesters	10 points
☐	Sludge Digester Gas reuse	3 points
☒	Aerobic Sludge Digester(s)	8 points
☒	Sludge Storage Lagoon(s) (List Basin(s) or Tank(s) under STEP 2)	2 points
☐	Sludge Lagoon(s) with aeration	3 points
☐	Sludge Drying Bed(s)	1 point
☐	Sludge Air or Gravity Thickening	3 points
☐	Sludge Composting, In Vessel	12 points
☐	Sludge Belt(s) or Vacuum Press/Dewatering	5 points
☐	Sludge Centrifuge(s)	5 points
☐	Sludge Incineration	12 points
☐	Sludge Chemical Addition Unit(s) (alum, polymer, alkaline stab. etc.)	2 points
☐	Non-Beneficial Sludge Disposal (landfill or burial)	1 point
☒	Beneficial Sludge Utilization (see also STEP 2)	3 points
	Subtotal	13 points

Disinfection:

☒	Liquid Chlorine Disinfection	2 points
☐	Gas Chlorine Disinfection	5 points
☒	Dechlorination System	4 points
☐	Other disinfection systems including ultraviolet and ozonation	5 points
	Subtotal	6 points
	Page 2 Subtotal	36 points

Wastewater System Classification Worksheet

(4) **Effluent Permit Requirement Points** (Check as applicable) **See also STEP 2:**

☐ Minimum of secondary effluent limitations for BOD and/or TSS	2 points
☐ Minimum of 20 mg/L BOD and/or Total Suspended Solids	3 points
☒ Minimum of 10 mg/L BOD and/or Total Suspended Solids	4 points
☐ Minimum of 5 mg/L BOD and/or Total Suspended Solids	5 points
☒ Effluent limitations for effluent oxygen (For other limits see Step 2)	1 point
Part 4 Subtotal	5 points

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

☐ Recurring deviations or excessive variations 100% to 200%	2 points
☐ Recurring deviations or excessive variations of more than 200%, or conveyance and treatment of industrial wastes by pretreatment program	4 points
☐ Septage or truck-hauled waste	2 points
Part 5 Subtotal	0 points

(6) **Sampling and Laboratory Testing Points** (check as applicable)

☒ Sample for BOD, Total Suspended Solids performed by outside lab or	2 points
☐ BOD or Total Suspended Solids analysis performed at treatment plant	4 points
☒ Bacteriological analysis performed by outside lab or	1 point
☐ Bacteriological analysis performed at WWT plant lab	2 points
☒ Nutrient, Heavy Metals or Organics analysis performed by outside lab or	3 points (≥1/mo. 1 pt)
☐ Nutrient, Heavy Metals or Organics analysis performed at WWT plant	5 points
Part 6 Subtotal	6 points
Parts 4-6 Total	11 points*

OAR 340-049-0025 **Accumulated Points**, pg 1 6.5, pg 2 36 & pg 3* 11 = 53.5 **Go to Step 2▼**

STEP 2 - Complexity Not Reflected Above (OAR 340-049-0020(4))

Note: This step may justify a higher classification. Points shown are given as guidance.

☐ Fine Screen Preliminary Treatment (includes washing & compaction)	2 points
☐ SCADA or similar instrumentation providing data w/ process op. (2-4 pts)	____ points
☒ Post aeration, includes mechanical and diffused aeration (not cascade)	1 point
☒ Class A recycled water (storage, distribution & monitoring)	6 points
☐ Class B, C, D and non-disinfected recycle (surface & subsurface)	3 points
☐ Sludge dewatering using bag or tube system	1 point
☐ Composting, ASP or windrow	6 points
☐ Land application of biosolids by system operator (add to BSU pts. Pg. 2)	6 points
☐ Odor or corrosion control (separate or combined)	2 points
☐ Chemical/Physical advanced waste treatment (10 -15 points)	____ points
☐ Reverse Osmosis or Electro-dialysis	15 points
☒ Other Effluent Requirements @ 1 pt (describe): ammonia flow	2 point(s)
☒ Other (describe): stand by power	1 point(s)
OAR 340-049-0020(4) points	10 points

Accumulated Point Total - Steps 1 and 2 (enter here and on page 1) **53.5 points**

A COPY OF THIS COMPLETED WORKSHEET TO BE FILED WITH THE OPERATOR CERTIFICATION PROGRAM OFFICE, WQ DIVISION, PRIOR TO SYSTEM START-UP

Page 3 of 3

Attachment #5a –Technical Memorandum - Temperature

Kennedy/Jenks Consultants

12 December 2007

Technical Memorandum - DRAFT

Prepared For:	Oregon Department of Environmental Quality
Submitted by:	Jack Detweiler and Kevin Fanning, Kennedy/Jenks Consultants
Reviewed by:	Charles Wright, Kennedy/Jenks Consultants
Subject:	Stream Temperature and Proposed WWTP Discharge Coburg Wastewater Project City of Coburg KJ 0779001

PURPOSE

This technical memorandum presents the anticipated temperature changes for the East Irrigation Canal (EIC) and Muddy Creek (see attached map) near Coburg, Oregon due to the discharge of reclaimed water (treated effluent) from the City's proposed wastewater treatment plant (WWTP).

Background

The EIC and Muddy Creek provide storm water drainage for the City of Coburg and the hills east of Coburg. During the dry weather season the EIC and Muddy Creek convey irrigation water for the Muddy Creek Irrigation Project (MCIP). Muddy Creek is joined by irrigation canals that serve agricultural areas north of Coburg before merging with the Willamette River near Corvallis.

Coburg's WWTP is proposing to discharge highly treated reclaimed water into an irrigation canal (EIC) that crosses Coburg's wastewater site and joins Muddy Creek immediately to the north. The EIC is used by the MCIP in late spring through summer to convey irrigation water. During irrigation season there is little flow in Muddy Creek upstream from the confluence with the EIC.

During the irrigation season, approximately 5 cubic feet per second (cfs) of irrigation water pumped from the McKenzie River is consistently running through the EIC. The projected effluent flow from Coburg's WWTP for the design year (2028) is 0.7 cfs. During the fall and spring months, flow in the EIC and in Muddy Creek are low (0.5 – 3 cfs) because irrigation has ceased, and precipitation is low. Flow in the EIC and Muddy Creek increase dramatically following winter storms.

Water quality criteria applicable to the EIC and Muddy Creek limits reclaimed water discharge if the temperature in the EIC or Muddy Creek exceeds 16 C.

Temperature Changes in the EIC from WWTP Discharge

Because Coburg's wastewater collection system and treatment facility have not been constructed, the temperature of the final effluent had to be estimated based on facilities with similar wastewater and treatment characteristics. Temperature data was obtained from Veneta Oregon, Yelm,

Technical Memorandum – DRAFT
Muddy Creek Stream Temperature – Coburg Wastewater Project
City of Coburg
12 December 2008
Page 2

Washington, and Capezzo, New Mexico. Wastewater temperature data from Veneta, Oregon was used for the following reasons.

- Both Coburg and Veneta use groundwater as a potable water source.
- Veneta has similar climate conditions to Coburg.
- Both are small, semi-rural communities with similar populations.

One key difference is that Veneta has a conventional gravity sewer system whereas Coburg will have a septic tank effluent pumped (STEP) sewer system. Therefore, since Yelm, WA is a comparably sized community with a STEP sewer system, we also included wastewater temperature data from Yelm for comparison.

Wastewater temperature typically increases as it passes through a treatment facility. Monthly influent and effluent temperature data from Capezzo, New Mexico was used as the basis for estimating the temperature rise for Coburg. The Capezzo WWTP uses similar membrane bioreactor (MBR) equipment and is comparable in size to the Coburg treatment plant.

Table 1 summarizes the reclaimed water flow and EIC flow values used for computing the expected temperature associated with the reclaimed water discharge. The reclaimed water flow is projected at an average of 0.7 cfs. This flow will have low seasonal variability because the STEP collection system allows minimal stormwater and groundwater infiltration.

Table 2 summarizes monthly raw wastewater temperature data from Veneta combined with the temperature increase from the Capezzo MBR treatment plant to estimate the temperature of Coburg's reclaimed water. Finally, the reclaimed water and the EIC monthly average temperatures were used with the flows from Table 1 to calculate a flow-weighted temperature for the combined effluent and EIC flow. Figure 1 is a graphical representation of Table 1 that illustrates the implications of the estimated temperatures in the EIC.

Table 1. Reclaimed Water Discharge and East Irrigation Canal Flow

Month	Reclaimed Water (Year 2025) cfs	East Irrigation Canal cfs
Jan	0.7	0.5
Feb	0.7	0.5
March	0.7	0
April	0.7	0
May	0.7	0
June	0.7	3
July	0.7	5
August	0.7	5
Sept	0.7	5
Oct	0.7	0
Nov	0.7	0.5
Dec	0.7	0.5

Table 2. Expected Temperature for Reclaimed Water and East Irrigation Canal

Month	Veneta Influent Wastewater Temp C	MBR Temperature Increase (a) Temp C	Expected Reclaimed Water Temperature Temp C	East Irrigation Canal (b) Temp C	Flow Weighted Temperature for the EIC Temp C
Jan	10.8	0.4	11.2	6.0	9.6
Feb	13.3	0.4	13.7	6.0	10.1
March	13.2	0.7	13.9	5.5	13.9
April	12.8	0.7	13.5	5.5	13.5
May	15.2	1.0	16.2	10.5	16.2
June	18	1.0	19.0	10.5	12.1
July	20.9	1.2	22.1	14.0	13.0
August	21.4	1.2	22.6	17.0	17.7
Sept	21	1.2	22.2	14.0	15.0
Oct	19	0.5	19.5	9.5	19.5
Nov	17	0.6	17.6	9.5	13.6
Dec	14	0.5	14.5	5.5	11.5

a. Data from Oakridge MBR plant.

b. Data from 2007/2008 water quality monitoring.

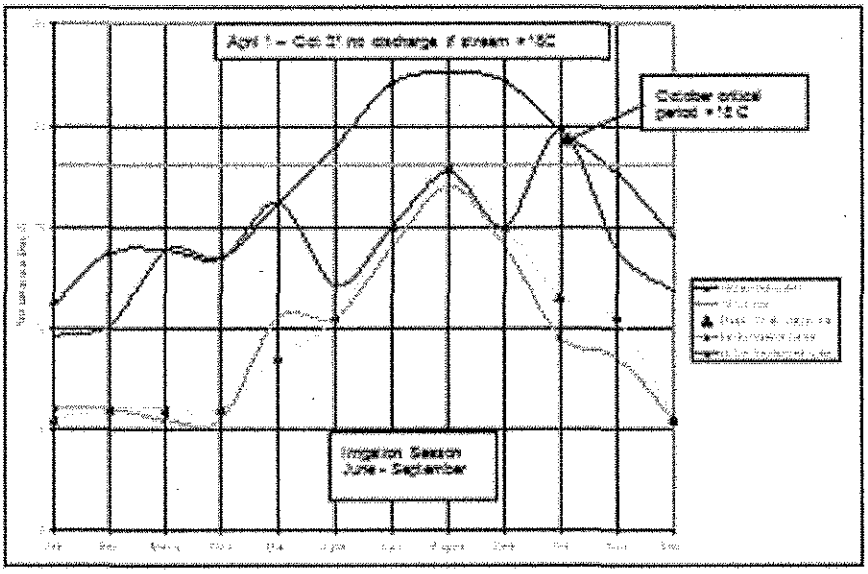


Figure 1. Estimated Temperature in East Irrigation Canal

Figure 1 shows that during the summer irrigation season, with its abundance of irrigation water, the temperature in the EIC is dominated by the cold McKenzie River water. Temperature is not an issue during this time because the combined EIC temperature is never above 18°C. During summer irrigation season the reclaimed water will be used for irrigation and only discharged to the EIC during periods of low irrigation demand.

October is the most critical period. The water quality criteria limits discharge if the temperature in the EIC exceeds 18 C. The cool irrigation water flow ceases about the end of September and the flow in the EIC becomes primarily discharged reclaimed water. Therefore the temperature in the EIC will be essentially the same as reclaimed water. As shown in Table 2, in October, the reclaimed water temperature may approach 20 C. By November, the reclaimed water temperature is expected to cool to about 18 C. During these critical months the temperature in the EIC will depend on the actual temperature of the reclaimed water.

There are two key factors that may cause the actual temperatures to vary from those estimated for October and November.

- Precipitation during October will increase flows in the EIC and will in turn lower the temperature. If October is cool and wet there will be cool stormwater runoff in the EIC and the temperature impact of the reclaimed water discharge will be considerably less. If October is warm and dry the reclaimed water will be irrigated and discharge of warm reclaimed water would be avoided.

- The Veneta, Oregon data used to estimate wastewater water temperature may not accurately reflect Coburg's wastewater temperature. Veneta uses a gravity collection system for its wastewater whereas Coburg will be using a STEP system. It is likely that the 6-day detention time in a below grade septic tank would cool the wastewater. Also, wastewater data from Yelm show very little storm related infiltration and inflow which is characteristic of a STEP sewer system.

Figure 2 compares estimated effluent temperatures from Veneta, Oregon and Yelm, Washington. Each community obtains potable water from groundwater, however Yelm uses a STEP sewer system whereas Veneta has a gravity sewer system. In each case the temperature rise from Cañezon, NM was added to the wastewater temperature data. Figure 2 shows that the expected temperature using Yelm data is either the same or lower than the estimate using Veneta data. During the critical month of October, the Yelm estimate is about 2 degrees lower than Veneta estimate.

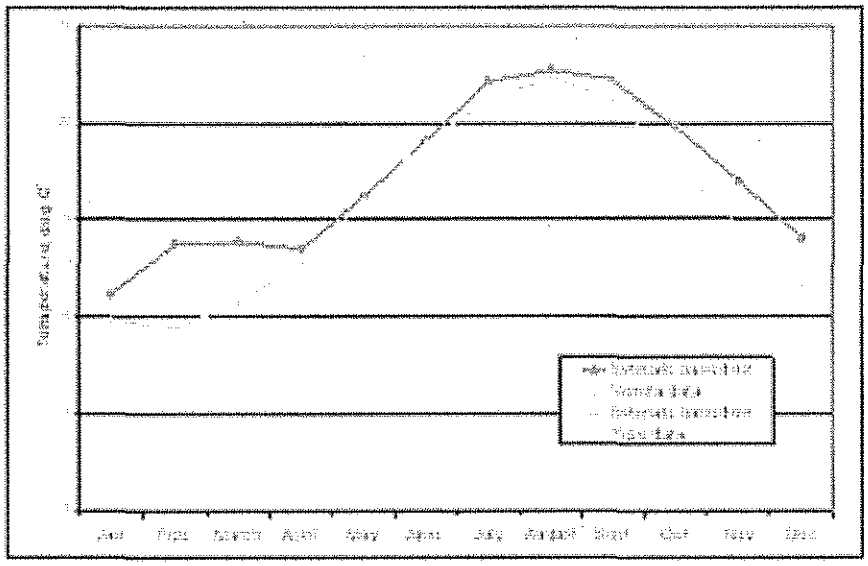


Figure 2. Effluent Temperature Estimates Based on Yelm WA and Veneta OR Data

Conclusion

Temperature effects from the discharge of reclaimed water to the EIC from the Coburg's proposed WWTP will fall below the 18°C threshold for all of the months except October. With low precipitation and no irrigation flow, the estimated temperature of the combined EIC and reclaimed water could approach 19.6°C (based upon Veneta, OR and Calpezzo, New Mexico wastewater treatment temperature increases) for October.

There is some uncertainty regarding the estimated effluent temperature for Coburg. Using wastewater temperature data from the STEP sewer system in Yelm, WA the temperature during the critical October period may be 2 degrees C lower than estimated using the Veneta, OR data. Therefore it is possible that the critical October temperature could be less than 18 degrees C. In either case, Coburg would avoid discharging and irrigate the reclaimed water whenever the temperature in the EIC approaches 18 degrees.

Attachment #5b –Technical Memorandum – Dissolved Oxygen

¶ Kennedy Jenks Consultants

12 December 2007¶

Technical Memorandum – DRAFT¶

Prepared For: → Oregon Department of Environmental Quality ¶

Submitted by: → Jack Detweiler and Kevin Farthing, Kennedy/Jenks Consultants¶

Reviewed by: → Charles Wright, Kennedy/Jenks Consultants¶

Subject: → Dissolved Oxygen in Muddy Creek ¶
→ → Coburg Wastewater Project¶
→ City of Coburg¶
K/J 0775001¶

¶

Purpose¶

This technical memorandum summarizes recently collected dissolved oxygen (DO) data for Muddy Creek at the I-5 Bridge near Coburg, Oregon. This data was collected to supplement the bi-monthly grab samples collected from August 2007 through June 2008. The recent data collected over 6 days at 15-minute intervals will provide a better understand the diurnal DO concentrations in Muddy Creek upstream of the confluence with the irrigation canal on which the proposed outfall from the new Coburg wastewater treatment plant will be located. ¶

Background¶

Muddy Creek receives storm water drainage from the City of Coburg, and the hills east of Coburg. Muddy Creek joins the Coburg irrigation canal downstream from the I-5 Bridge and ultimately merges with the Willamette River near Corvallis. See the site map attached to this memorandum.¶

In the summer, Muddy Creek receives little flow upstream of the I-5 Bridge. Irrigation water pumped from the McKenzie River travels through irrigation canals which join Muddy Creek downstream from the I-5 Bridge. In the fall, spring, and winter, when there is no irrigation diversion, Muddy Creek flow is primarily runoff from Coburg and the surrounding hills and groundwater entering the stream. ¶

October and November are critical months for DO concentrations. Irrigation flows typically cease in late September or early October. Prior to the fall rains the stream flow is low, temperature elevated and DO concentrations potentially low. Once the fall rains begin the stream flow and DO concentrations increase. ¶

The water quality criteria for DO applicable to cool water habitat calls for a 30-day mean minimum level of 6.5 mg/l, a 7-day minimum mean of 5.0 mg/l and a minimum of 4.0 mg/l. ¶

Muddy Creek DO Data¶

The data that was used to produce Figures 1 and 2 was collected by Kennedy/Jenks Consultants staff between November 20 and 25, 2008. An in-stream temperature and dissolved oxygen probe (YSI model 600 XLM), was placed into Muddy Creek at 3:45 PM on the November 20, 2008. The probe was placed at a midstream location, at approximately 6 inches below the water surface. The total stream depth was 15 inches. DO, temperature, conductance, and pH data were taken every 15 minutes. The DO probe was calibrated by technicians at Equipco; however, to confirm that the DO probe was giving accurate results, the DO concentration in Muddy Creek where the probe was located was also sampled for testing by a local independent laboratory. The laboratory result was a DO concentration of 7.5 mg/L with an error of ±0.2 mg/L. For the same time period (3:30 PM to 4:00 PM on November 20, 2008) the average DO concentration was 7.50 mg/L.¶

The ambient temperature was approximately 45 degrees F when the probe was placed. There had been 0.44 inches of precipitation in the past 72 hours (11-19 to 11-21). During the months of October and November 2008 a total of 5.57 inches of rain fell whereas the normal rainfall for these months is 11.79 inches.¶

Stream flow measurements were taken at the time the DO probe was placed. Flow measurements were taken by making transects with a propeller velocity meter. The flow in the East Irrigation Canal (EIC) was 0.2 cfs and flow in Muddy Creek at the DO probe location was 1.0 cfs. These flows are consistent with the 2007 data collected during dry conditions in October and November. It should be noted that following a rainstorm in November 2007 the flow in Muddy Creek at the I-5 Bridge reached about 170 cfs.¶

Figure 1 shows the DO concentration for Muddy Creek at the I-5 Bridge along one axis with the percent saturation of DO for the given stream temperature on the other axis. Figure 1 shows that for the six days the probe was in Muddy Creek, the DO concentration never fell below the 30-day mean minimum of 6.5 mg/L. The DO concentration ranged from about 7 mg/L when the probe was initially placed to a maximum of almost 10 mg/L. The DO saturation level ranged from a minimum of about 62 percent near the start of the monitoring to a maximum of 83 percent.¶

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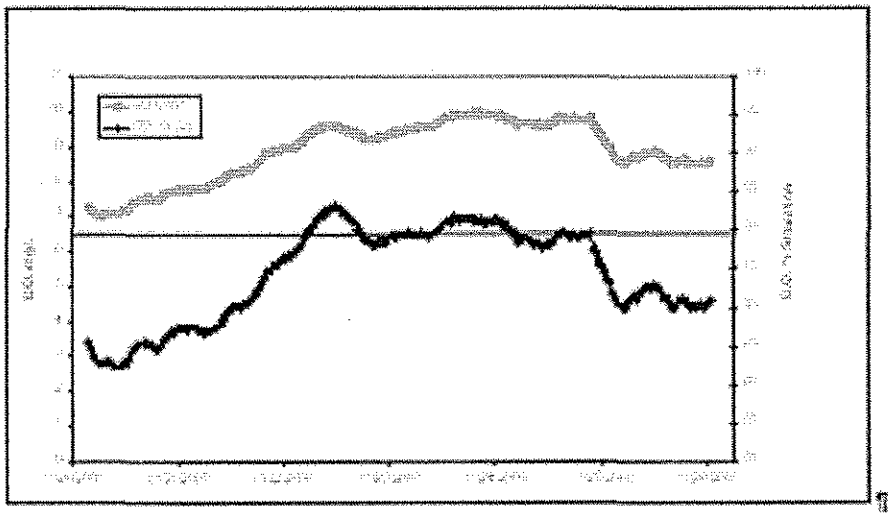
Kennedy/Jenks Consultants¶

Technical Memorandum 1 – DRAFT¶
Dissolved Oxygen in Muddy Creek¶
City of Cosa¶
12 December 2005¶
Page 3¶



¶

Figure 1. Dissolved Oxygen and Saturation for Muddy Creek at I-5 ¶

Figure 2 is a combined plot of DO concentration and temperature. This figure shows the stream temperature falling from about 10.6 degrees C at the start of monitoring to about 7.1 degrees C at the end of the monitoring period.¶

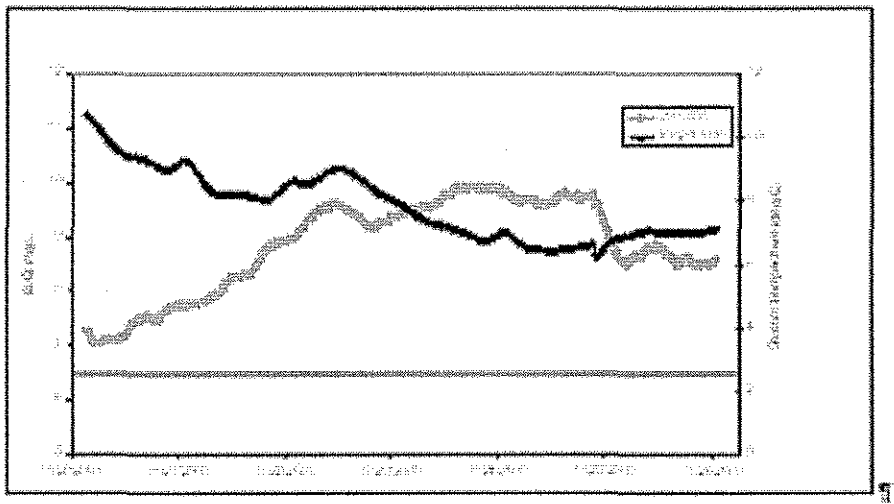


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Figure 2. Dissolved Oxygen and Stream Temperature for Muddy Creek at I-5 ¶

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¶

Conclusion¶

The data collected during November 20, 2008 through November 25, 2008 shows reasonable consistency with the grab sample data collected in October and November 2007 summarized in Table 1. The data collected on November 19, 2007 was influenced by high stream flows following three days of rain totaling nearly 3.5 inches. The 2007 temperatures ranged from 11.5 to 9.0 deg C whereas the 2008 data ranged from 10.7 to 8.2 deg C. The 2007 DO concentrations ranged 9.5 to 4.9 mg/l whereas the 2008 DO concentrations ranged from 9.6 to 7.1 mg/l. The 2007 DO saturation level ranged from 43 to 83 percent whereas the 2008 saturation levels ranged from 63 to 83 percent. Examination of the 2007 data suggests that the DO concentration of 4.9 mg/l on November 8, 2007 could be an anomaly. During the sampling from August 2007 through June 2008 only two samples showed DO concentrations lower than 6.2 mg/l. ¶

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Dissolved Oxygen in Muddy Creek¶
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Table 1. Muddy Creek Water Quality Data (I-5 Bridge), October and November 2007¶

Sample Date	Flow, cfs	Temperature, C	Dissolved Oxygen, mg/l	Dissolved Oxygen, percent of saturation	
October 11, 2007	0.4	11.5	6.2	56	
October 25, 2007	3.1	10.5	7.6	69	
November 8, 2007	0.6	9.5	4.9	43	
November 19, 2007	170	9.0	9.5	83	

¶

Attachment #6 – Antidegradation Review

Appendix B: Antidegradation Review Sheet

ANTIDEGRADATION REVIEW SHEET
FOR A PROPOSED INDIVIDUAL NPDES DISCHARGE

1. What is the name of Surface Water that receives the discharge? East Irrigation Canal to Muddy Creek

   Briefly describe the proposed activity: Municipal wastewater treatment

   Is this review for a renewal OR (new) (circle one) permit application?
   Go to Step 2.

---

2. Is this surface water an **Outstanding Resource Water** or upstream from an **Outstanding Resource Water**?
   Yes. Go to Step 5.
   No. Go to Step 3.

3. Is this surface water a **High Quality Water**?
   Yes. Go to Step 8.
   No. Go to Step 4.

---

8. Will the proposed activity result in a Lowering of Water Quality in the **High Quality Water**[see OAR 340-041-0004(3)-(5) for a description in rule of discharges that do not result in lowering of water quality or do not constitute a new and or increased discharge or are otherwise exempt from antidegradation review; otherwise see "Is an Activity Likely to Lower Water Quality?" in *Antidegradation Policy Implementation Internal Management Directive for NPDES Permits and Section 401 Water Quality Certifications.*]
   Yes. Go to Step 9.
   No. Proceed with Permit Application. Applicant should provide basis for conclusion. Go to Step 21.

9. OAR 340-041-0004(5)(c) of the *High Quality Waters Policy* requires that the Department evaluate the application to determine all water quality standards will be met and beneficial uses protected after allowing discharge to **High Quality Waters**. Will all water quality standards be met and beneficial uses protected?
   Yes. Please provide basis for conclusion. Proceed with Application Process to Interagency Coordination and Public Comment. Go to Step 10. See Permit Evaluation Report sections concerning water quality based effluent limits (dissolved oxygen, thermal load, chlorine and ammonia).
   No. Please provide basis for conclusion. Recommend Preliminary Decision to deny proposed activity (subject to Interagency Coordination and Public Comment). Go to Step 21.

10. OAR 340-041-0004(5)(a) of the *High Quality Waters Policy* requires that the Department evaluate the application to determine if no other reasonable alternatives exist except to discharge to **High Quality Waters**. Were any of the alternatives (at a minimum, the following list must be considered) feasible?
    - Improved operation and maintenance of existing treatment system
    - Recycling or reuse with no discharge
    - Discharge to on-site system
    - Seasonal or controlled discharges to avoid critical water quality periods
    - Discharge to sanitary sewer
    - Land application

    Yes. Please provide basis for conclusion (see below for information requirements). Recommend Preliminary Decision that applicant use alternative. Go to Step 8.

    No. Please provide basis for conclusion (see below for information requirements). Go to Step 11.

    In a separate statement to this application, please explain the *technical feasibility* of the alternative, explain the *economic feasibility* of the alternative, and provide an *estimated cost* of NPDES permit alternative for a five-year period from start-up.

    See Permit Evaluation Report sections concerning recycled water, groundwater and alternatives selection. In order to eliminate all discharges, an additional $10 to $14 Million in capital costs would be required.

11. OAR 340-041-0004(5)(b) of the *High Quality Waters Policy* requires that the Department evaluate the application to determine if there are social and economic benefits that outweigh the environmental costs of allowing discharge to High Quality Waters. Do the social and economic benefits outweigh the environmental costs of lowering the water quality?

    Yes. Please provide basis for conclusion (see below for information requirements). Go to Step 12.

    The environmental costs are minor and localized. Compliance with all water quality standards will be assured. Nitrate contributions to the groundwater will be reduced.

    No. Please provide basis for conclusion (see below for information requirements). Go to Step 21.

The basis for conclusion should include a discussion of whether the lowering of water quality is necessary and important. "Necessary" means that the same social and economic benefits cannot be achieved with some other approach. "Important" means that the value of the social and economic benefits due to lowering water quality is greater than the environmental costs of lowering water quality. Benefits can be created from measures such as:

- Creating or expanding employment (provide current/expected number of employees, type & relative amount of each type
- Increasing median family income
- Increasing community tax base (provide current/expected annual sales, tax info)
- Providing necessary social services
- Enhancing environmental attributes

and Environmental Costs can include:

- Losing assimilative capacity otherwise used for other industries development
- Impacting fishing, recreation, and tourism industries negatively
- Impacting health protection negatively
- Impacting societal value for environmental quality negatively

12. OAR 340-041-0004(5)(d) of the *High Quality Waters Policy* requires that the Department to prevent federal threatened and endangered aquatic species from being adversely affected. Will the lowering the water quality likely result in adverse effects on federal threatened and endangered aquatic species?
    Yes. Please provide basis for conclusion (see below for information requirement). Go to Step 21.
    No. Please provide basis for conclusion (see below for information requirement). Go to Step 13.
    The US Fish and Wildlife Service issued a letter of concurrence stating that the project will be protective of the Oregon Chub (see Permit Evaluation Report Appendix C, Attachment #7).

13. Will the lowering of water quality in the **High Quality Water** be on a short-term basis in response to an emergency or to protect human health and welfare?
    Yes. Go to Step 18.
    The project will reduce nitrate contributions to the Southern Willamette Valley Groundwater Management Area thereby protecting human health.
    No. Recommend Preliminary Decision to deny proposed activity (subject to Interagency Coordination and Public Comment). Go to Step 21.

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18. Is the proposed activity consistent with local land use plans?
    Yes. Go to Step 19.

No. Please provide basis for conclusion. Recommend Preliminary Decision to deny proposed activity (subject to Interagency Coordination and Public Comment). Go to Step 21.

19. OAR 340-041-0004(9)(c)(A) requires the Department to consider alternatives to lowering water quality. Were any of the alternatives (at a minimum, the following list must be considered) feasible?
    - Improved operation and maintenance of existing treatment system
    - Recycling or reuse with no discharge
    - Discharge to on-site system
    - Seasonal or controlled discharges to avoid critical water quality periods
    - Discharge to sanitary sewer
    - Land application

    Yes. Please provide basis for conclusion (see below for information requirement). Recommend Preliminary Decision that applicant use alternative. Go to Step 14.

    No. Please provide basis for conclusion (see below for information requirement). Go to Step 20.

    In a separate statement to this application, please explain the *technical feasibility* of the alternative, explain the *economic feasibility* of the alternative, and provide an *estimated cost* of NPDES permit alternative for a five-year period from start-up.

    See Permit Evaluation Report sections concerning recycled water, groundwater and alternatives selection. In order to eliminate all discharges, an additional $10 to $14 Million in capital costs would be required.

20. OAR 340-041-0004(9)(c)(B) of the *Water Quality Limited Waters Policy* requires the Department to consider the economic effects of the proposed activity, which in this context consists of determining if the social and economic benefits of the activity outweigh the environmental costs of allowing a lowering of water quality. Do the social and economic benefits outweigh the environmental costs of lowering the water quality?

    Yes. Please provide basis for conclusion. Proceed with Application Process to Interagency Coordination and Public Comment. Go to Step 21. The environmental costs are minor and localized. Compliance with all water quality standards will be assured. Nitrate contributions to the groundwater will be reduced.

    No. Please provide basis for conclusion. Recommend Preliminary Decision to deny proposed activity (subject to Interagency Coordination and Public Comment). Go to Step 21.

The basis for conclusion should include a discussion of whether the lowering of water quality is necessary and important. "Necessary" means that the same social and economic benefits cannot be achieved with some other approach. "Important" means that the value of the social and economic benefits due to lowering water quality is greater than the environmental costs of lowering water quality. Benefits can be created from measures such as:

- Creating or expanding employment (provide current/expected number of employees, type & relative amount of each type
- Increasing median family income
- Increasing community tax base (provide current/expected annual sales, tax info)
- Providing necessary social services
- Enhancing environmental attributes

and Environmental Costs can include:

- Losing assimilative capacity otherwise used for other industries development
- Impacting fishing, recreation, and tourism industries negatively
- Impacting health protection negatively
- Impacting societal value for environmental quality negatively

21. On the basis of the Antidegradation Review, the following is recommended:
_X___ Proceed with Application to Interagency Coordination and Public Comment Phase.
____ Deny Application; return to applicant and provide public notice.

Action Approved

Section: __Western Region Water Quality__

Review Prepared By: __Mark E. Hamlin_____
Phone: __(503) 378-5319_____
Date Prepared: __February 20, 2009_____

Please provide the following information and submit with the completed application form to:

Department of Environmental Quality
Water Quality Division—Surface Water Management
811 SW Sixth Avenue
Portland, Oregon 97204-1390

Attachment #7 – ESA findings

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Oregon Fish and Wildlife Office
2600 SE 98th Avenue, Suite 100
Portland, Oregon 97266
Phone: (503) 231-6179 FAX: (503) 231-6195

Reply To: 8330.F0141(08)
File Name: Coburg WWTP
TS Number: 08-1839
TAILS: 13420-2008-F-0141

OCT 2 8 2008

Michael J. Lidgard, Manager
NPDES Permits Unit
US EPA, Region 10
1200 Sixth Avenue, Suite 900
Seattle, WA 98101-3140

Subject: Letter of Concurrence for the City of Coburg Wastewater Treatment Facility Project.

Dear Mr. Lidgard,

The Fish and Wildlife Service (Service) has reviewed both your request for formal consultation and the accompanying Environmental Assessment and Biological Assessment for the City of Coburg Wastewater Treatment Facility project in Coburg, Oregon. Your request was based on the determination that the action is "likely to adversely affect" the federally listed Oregon chub (*Oregonichthys* crameri). The Service has not designated critical habitat for the Oregon chub.

The project area is located within the Willamette River basin, at the north end of the City of Coburg, Oregon, on a parcel of land totaling 2.3 acres. Discharge from the project site will drain to an irrigation canal on the property at an outfall point approximately 1700 feet upstream of its confluence with Muddy Creek. The creek itself is 4.5 miles upstream of the Willamette River.

The purpose of the project is to develop a centralized wastewater treatment system that replaces existing private wastewater systems and accommodates future growth and development of the City. The project consists of a collection system, a wastewater treatment plant, and a treated effluent outfall.

On October 1, 2008, the Service requested additional information in order to confirm the presence or absence of listed prairie species within the expanded urban growth boundary, facilitated in part by the proposed action that the City has projected for 2028. We requested a map and aerial photo of the City of Coburg with as much detail possible regarding the projected expanded urban growth boundary (782 acres, mentioned on page 22 of the Biological Assessment).

On October 3, 2008, the Service received the requested information via email and, upon review and comparison with Service Geographic Information System (GIS) data, determined that there are no listed prairie species in the area in question.

After further review of the Biological Assessment and the effects of the project on Oregon chub, the Service determined the effects of the action on Oregon chub were insignificant or discountable. The Service contacted the EPA on October 22 to discuss this change in effects determination. The EPA subsequently made a "may affect, not likely to adversely affect" (NLAA) determination for the proposed project on the Federally listed as endangered Oregon chub (*Oregonichthys crameri*). The Service concurs with the EPA's determination that the proposed project is NLAA Oregon chub for the following reasons:

1. Construction related turbidity that may temporarily reduce water quality is not likely to affect Oregon chub in Muddy Creek. While research does indicate negative effects of long-term deposits of sediment that displace the species' open-water habitat, the level of temporary suspended sediment that would flow into the creek from the canal would unlikely be detrimental to Oregon chub.
2. Although the species has been found in Muddy Creek, suitable habitat for the Oregon chub is not currently present in the irrigation canal and therefore the species and its habitat would be unaffected by changes in the canal structure relating to the placement of rock at the outfall.
3. Even the lowest level of dissolved oxygen in the effluent anticipated near the point of discharge during low flow months, 5.7 mg/L, is not considered detrimental to Oregon chub.

This concludes the EPA's consultation requirements under section 7(a)(2) and 7(c) of the ESA.

The Service appreciates the City of Coburg's efforts to design projects that minimize effects to Oregon chub. If you have further questions regarding this consultation, please contact Rollie White or Rebecca Toland of my office at (503) 231-6179.

Sincerely yours,

Acting for Paul Henson, PhD
Field Supervisor

cc: Milo Mecham, Lane Council of Governments
Jamey Stoddard, EPA

Attachment #8 – Total Residual Chlorine Limits

Facility Name: Coburg STP **Date:** 6/2/2008

Dilution Values? (Y/N)	Y	calculated
low Flow Dilution @ ZID (1Q10)	1	*
low Flow Dilution @ MZ (7Q10)	1	*
low Flow Dilution @ MZ (30Q5)	1	*
high Flow Dilution @ ZID (1Q10)	*	*
high Flow Dilution @ MZ (7Q10)	*	*
high Flow Dilution @ MZ (30Q5)	*	*
If no dilution values		
Enter Flow values here	Summer	Winter
Effluent Flow (MGD)	0.44	0.44
1Q10 (CFS)	*	*
7Q10 (CFS)	*	*
30Q5 (CFS)	*	*
% dilution at MZ	*	*
% dilution at ZID	*	*
probability basis	99%	
(WLA multipliers)		

Summer data	Effluent	Stream	Mixed			
			ZID	MZ	MZ	
			1Q10	7Q10	30Q5	
pH * =	*	*	*	*	*	(6.5-9
Temp * =	*	*	*	*	*	° C
Alkalinity =	*	*				
Salmonids Present? (Y/N)	n/a	Y				
Salmonid Spawning? (Y/N)	n/a	N				
Fresh Water ? (Y/N)	n/a	Y				
Salinity	*	*	*	*		
Winter data						
pH * =	*	*	*	*	*	(6.5-9
Temp * =	*	*	*	*	*	° C
Alkalinity =	*	*				
Salmonids Present? (Y/N)	n/a	*				
Salmonid Spawning (Y/N)	n/a	*				
Fresh Water ? (Y/N)	n/a	*				
Salinity	*	*	*	*		

	WATER QUALITY CRITERIA													Concentration Limits	
PARAMETER	1 Hour (CMC)	4 Day (CCC)	30 Day (CCC)	Back-ground	Allocations Acute	Allocations 4 Day	Allocations 30 Day	CV	# Samples	Acute LTA	4 day LTA	30 day LTA	Min LTA	95% Monthly	99% Daily
	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/L		/Mo	mg/l	mg/l	mg/L	mg/l	mg/l	mg/l
Low Flow Season															
CHLORINE	0.019	0.011	n/a	0.00	0.02	0.01	n/a	0.6	30	0.01	0.01	n/a	0.01	0.01	0.02

Attachment #9a – Ammonia Limits, 11°C and 13°C

Facility Name: Coburg STP **Date:** 1/29/2009

Dilution Values? (Y/N)	Y	calculated
11° c-Dilution @ ZID (1Q10)	1	*
Dilution @ MZ (7Q10)	1	*
Dilution @ MZ (30Q5)	1	*
13° c-Dilution @ ZID (1Q10)	1	*
Dilution @ MZ (7Q10)	1	*
Dilution @ MZ (30Q5)	1	*
If no dilution values		
Enter Flow values here	11°c	13°c
Effluent Flow (MGD)	0.44	0.44
1Q10 (CFS)	*	*
7Q10 (CFS)	*	*
30Q5 (CFS)	*	*
% dilution at MZ	*	*
% dilution at ZID	*	*
probability basis	99%	
(WLA multipliers)		

	Effluent	Stream	Mixed			
			ZID	MZ	MZ	
11° c				7Q10	30Q5	
pH * =	7.6	7.6	7.6	7.6	7.6	(6.5-9)
Temp * =	11	11	11.0	11.0	11.0	°C
Alkalinity =	75	75				
Salmonids Present? (Y/N)		Y				
Salmonid Spawning? (Y/N)		n				
Fresh Water ? (Y/N)		Y				
Salinity	0	20	0.0	0.0	0.0	
13° c						
pH * =	7.6	7.6	7.6	7.6	7.6	(6.5-9)
Temp * =	13	13	13.0	13.0	13.0	°C
Alkalinity =	75	75				
Salmonids Present? (Y/N)		Y				
Salmonid Spawning (Y/N)		n				
Fresh Water ? (Y/N)		Y				
Salinity	0	20	0.0	0.0		

	WATER QUALITY CRITERIA													CONCENTRATION LIMITS	
PARAMETER	1 Hour (CMC)	4 Day (CCC)	30 Day (CCC)	Back-ground	Allocations Acute	Allocations 4 Day	Allocations 30 Day	CV	# Samples	Acute LTA	4 day LTA	30 day LTA	Min LTA	95% Monthly	99% Daily
	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/L		/Mo	mg/l	mg/l	mg/L	mg/l	mg/l	mg/l
11° c															
AMMONIA - 1986	11.1	1.8	n/a	0.15	11.10	1.84	n/a	0.6	4	3.56	0.97	n/a	0.97	1.5	3.0
13° c															
AMMONIA - 1986	10.9	1.8	n/a	0.15	10.93	1.82	n/a	0.6	4	3.51	0.96	n/a	0.96	1.5	3.0

Attachment #9b – Ammonia Limits, 15°C and 17°C

Facility Name: Coburg STP **Date: 1/29/2009**

Dilution Volumes? (Y/N)	Y	calculated
15° c Dilution @ ZID (1Q10)	1	*
Dilution @ MZ (7Q10)	1	*
Dilution @ MZ (30Q5)	1	*
17° c Dilution @ ZID (1Q10)	1	*
Dilution @ MZ (7Q10)	1	*
Dilution @ MZ (30Q5)	1	*
If no dilution volume		
Enter flow rates here	15°c	17°c
Effluent Flow (MGD)	0.44	0.44
1Q10 (CFS)	*	*
7Q10 (CFS)	*	*
30Q5 (CFS)	*	*
% dilution at MZ	*	*
% dilution at ZID	*	*
probability basis	99%	
(WLA multipliers)		

	Effluent	Stream	Mixed			
			ZID	MZ	MZ	
15° c				7Q10	30Q5	
pH * =	7.6	7.6	7.6	7.6	7.6	(6.5-9)
Temp * =	15	15	15.0	15.0	15.0	°C
Alkalinity =	75	75				
Salmonids Present? (Y/N)		y				
Salmonid Spawning? (Y/N)		n				
Fresh Water ? (Y/N)		y				
Salinity	0	20	0.0	0.0	0.0	
17° c						
pH * =	7.6	7.6	7.6	7.6	7.6	(6.5-9)
Temp * =	17	17	17.0	17.0	17.0	°C
Alkalinity =	75	75				
Salmonids Present? (Y/N)		y				
Salmonid Spawning (Y/N)		n				
Fresh Water ? (Y/N)		y				
Salinity	0	20	0.0	0.0		

	WATER QUALITY CRITERIA				Allocations				#	Acute	4 day	30 day	Min	CONCENTRATION LIMITS	
PARAMETER	1 Hour (CMC)	4 Day (CCC)	30 Day (CCC)	Back-ground	Acute	4 Day	30 Day	CV	Samples /Mo	LTA	LTA	LTA	LTA	95% Monthly	99% Daily
	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/L			mg/l	mg/l	mg/L	mg/l	mg/l	mg/l
15° c															
AMMONIA - 1986	10.8	1.8	n/a	0.15	10.79	1.79	n/a	0.6	4	3.46	0.95	n/a	0.95	1.5	2.9
17° c															
AMMONIA - 1986	10.7	1.5	n/a	0.15	10.68	1.55	n/a	0.6	4	3.43	0.81	n/a	0.81	1.3	2.5

Attachment #9c – Ammonia Limits, 19°C and 21°C

Facility Name: Coburg STP **Date: 1/29/2009**

Dilution Volumes? (Y/N)	Y	calculated
19° c Dilution @ ZID (1Q10)	1	*
Dilution @ MZ (7Q10)	1	*
Dilution @ MZ (30Q5)	1	*
21° c Dilution @ ZID (1Q10)	1	*
Dilution @ MZ (7Q10)	1	*
Dilution @ MZ (30Q5)	1	*
If no dilution volume		
Enter flow rates here	19°C	21°C
Effluent Flow (MGD)	0.44	0.44
1Q10 (CFS)	*	*
7Q10 (CFS)	*	*
30Q5 (CFS)	*	*
% dilution at MZ	*	*
% dilution at ZID	*	*
probability basis	99%	
(WLA multipliers)		

	Effluent	Stream	Mixed			
			ZID	MZ	MZ	
19° C				7Q10	30Q5	
pH * =	7.6	7.6	7.6	7.6	7.6	(6.5-9)
Temp * =	19	19	19.0	19.0	19.0	°C
Alkalinity =	75	75				
Salmonids Present? (Y/N)		y				
Salmonid Spawning? (Y/N)		n				
Fresh Water ? (Y/N)		y				
Salinity	0	20	0.0	0.0	0.0	
21° C						
pH * =	7.6	7.6	7.6	7.6	7.6	(6.5-9)
Temp * =	21	21	21.0	21.0	21.0	°C
Alkalinity =	75	75				
Salmonids Present? (Y/N)		y				
Salmonid Spawning (Y/N)		n				
Fresh Water ? (Y/N)		y				
Salinity	0	20	0.0	0.0		

	WATER QUALITY CRITERIA				Allocations				#	Acute	4 day	30 day	Min	CONCENTRATION LIMITS	
PARAMETER	1 Hour (CMC)	4 Day (CCC)	30 Day (CCC)	Back-ground	Acute	4 Day	30 Day	CV	Samples /Mo	LTA	LTA	LTA	LTA	95% Monthly	99% Daily
	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/L			mg/l	mg/l	mg/L	mg/l	mg/l	mg/l
19° C															
AMMONIA - 1986	10.6	1.3	n/a	0.15	10.59	1.33	n/a	0.6	4	3.40	0.70	n/a	0.70	1.1	2.2
21° C															
AMMONIA - 1986	9.8	1.2	n/a	0.15	9.83	1.16	n/a	0.6	4	3.16	0.61	n/a	0.61	0.95	1.9

Attachment #9d – Ammonia Limits, 23°C and 25°C

Facility Name: Coburg STP **Date:** 1/29/2009

Dilutions Values? (Y/N)	Y	calculated
23° c Dilution @ ZID (1Q10)	1	*
Dilution @ MZ (7Q10)	1	*
Dilution @ MZ (30Q5)	1	*
25° c Dilution @ ZID (1Q10)	1	*
Dilution @ MZ (7Q10)	1	*
Dilution @ MZ (30Q5)	1	*
If no dilution values		
Enter flow values below	23°c	25°c
Effluent Flow (MGD)	0.44	0.44
1Q10 (CFS)	*	*
7Q10 (CFS)	*	*
30Q5 (CFS)	*	*
% dilution at MZ	*	*
% dilution at ZID	*	*
probability basis	99%	
(WLA multipliers)		

	Effluent	Stream	Mixed			
			ZID	MZ	MZ	
23° c				7Q10	30Q5	
pH * =	7.6	7.6	7.6	7.6	7.6	(6.5-9)
Temp * =	23	23	23.0	23.0	23.0	°C
Alkalinity =	75	75				
Salmonids Present? (Y/N)		y				
Salmonid Spawning? (Y/N)		n				
Fresh Water ? (Y/N)		y				
Salinity	0	20	0.0	0.0	0.0	
25° c						
pH * =	7.6	7.6	7.6	7.6	7.6	(6.5-9)
Temp * =	25	25	25.0	25.0	25.0	°C
Alkalinity =	75	75				
Salmonids Present? (Y/N)		y				
Salmonid Sapwning (Y/N)		n				
Fresh Water ? (Y/N)		y				
Salinity	0	20	0.0	0.0		

	WATER QUALITY CRITERIA				Allocations				#	Acute	4 day	30 day	Min	CONCENTRATION LIMITS 95%	99%
PARAMETER	1 Hour (CMC)	4 Day (CCC)	30 Day (CCC)	Back-ground	Acute	4 Day	30 Day	CV	Samples /Mo	LTA	LTA	LTA	LTA	Monthly	Daily
	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/L			mg/l	mg/l	mg/L	mg/l	mg/l	mg/l
23° c															
AMMONIA - 1986	8.5	1.0	n/a	0.15	8.53	1.00	n/a	0.6	4	2.74	0.53	n/a	0.53	0.82	1.6
AMMONIA - 1999	11.4	5.8	2.3	0.15	11.37	5.75	2.3	0.6	4	3.65	3.0	1.80	1.80	2.8	5.6
25° c															
AMMONIA - 1986	7.4	0.9	n/a	0.15	7.42	0.87	n/a	0.6	4	2.38	0.46	n/a	0.46	0.71	1.4
AMMONIA - 1999	11.4	5.1	2.0	0.15	11.37	5.06	2.0	0.6	4	3.65	2.7	1.58	1.58	2.5	4.9

Attachment #10a – Streeter-Phelps Model Stage 1 – EIC to Muddy Creek

Streeter-Phelps Dissolved Oxygen Model   Stage 1   EIC to Muddy Creek   2/13/2009

WWTP Effluent		
Temp (C)	18	
DO(mg/L)	6.5	
CBOD5(m	8	
NH3-N(m	1.2	
TKN (mg/L	10	
Qe (mgd)	0.44	
K1(@20 C	0.07	0.0647
East Irrigation Canal		
Temp (C)	16	
DO	6.5	
CBOD5	1	
NH3	0.15	
TKN	0.5	
Qr (cfs)	0.2	
Kd	0.1	0.083
Kne	0.701	0.519
Kni	0.700	0.515
Kin	0.702	0.516
Ks	0	
Kr	0.083	
Depth(ft)	0.6	
Width (ft)	4	
U (fps)	0.37	
U (mpd)	6.00	
Ka (entered)	na	na
Ka (computed)	28.521	26.906
SB (g O2/m2 d)	2	1.555
Temperature coefficients		
Theta CBO	1.047	
Theta O2	1.024	
Theta SOD	1.065	
Theta NBO	1.08	

Note:
black - entered values
blue - calculated values

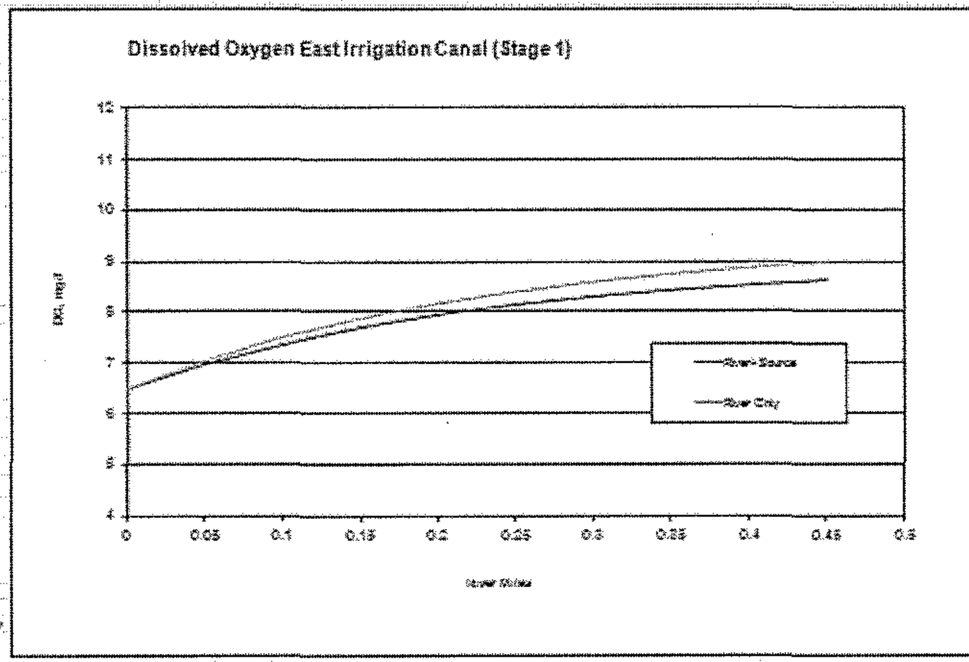
RM counter	0.05

Calculations		
Tmix	17.55	290.7
UBODe (m	27.04	
UBODr (m	2.541	
UBODm (L	21.52	
NH3m	0.96	
Norgm	6.90	
DOsat mix	9.43	
DO mix	6.50	
Do	2.93	

Reaeration equations	
O'Connor Dobl	15.914
Churchill (196	10.321
Owens (1964)	28.521

DO SAT. sol	
mg/L	
9.43	
0	Salinity
375	Elevation

RM (mi)	River Dist. (ft)	Time (days)	Deficit CBOD	Deficit NBOD	DO	River-Source DO	Source-Deficit DO Deficit	Remaining CBOD	Remaining Organic N	Remaining NH3-N	Remaining Nitrite	Remaining Nitrate
0.00	0.00	0.00	2.93	0.00	6.50	6.50	0.00	21.52	6.882	0.96	0.00	0.00
0.05	264.00	0.01	2.42	0.02	7.06	6.99	0.07	21.50	6.853	0.99	0.00	0.00
0.10	528.00	0.02	2.01	0.03	7.51	7.39	0.12	21.49	6.823	1.01	0.01	0.00
0.15	792.00	0.02	1.68	0.04	7.88	7.70	0.18	21.47	6.794	1.04	0.01	0.00
0.20	1056.00	0.03	1.42	0.05	8.17	7.95	0.22	21.46	6.765	1.06	0.02	0.00
0.25	1320.00	0.04	1.21	0.06	8.41	8.15	0.25	21.44	6.736	1.09	0.02	0.00
0.30	1584.00	0.05	1.05	0.07	8.60	8.31	0.29	21.43	6.707	1.11	0.03	0.00
0.35	1848.00	0.06	0.91	0.08	8.75	8.44	0.31	21.41	6.678	1.13	0.03	0.00
0.40	2112.00	0.07	0.81	0.08	8.87	8.54	0.33	21.40	6.650	1.16	0.04	0.00
0.45	2376.00	0.07	0.72	0.09	8.97	8.62	0.35	21.38	6.621	1.18	0.04	0.00

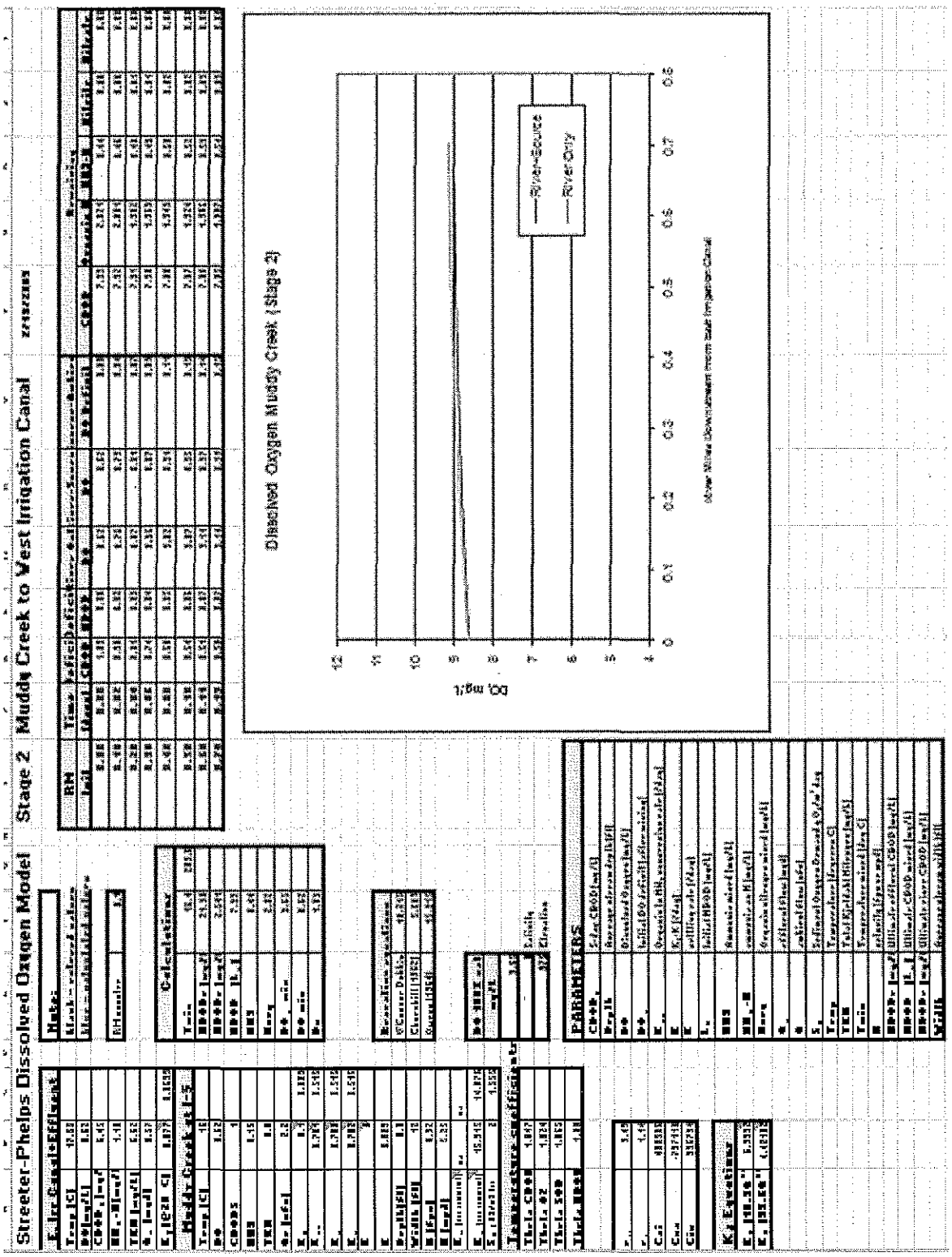


Kd	3.43
Kni	1.14
Cai	1E+06
Cna	-3E+06
Cin	1E+06

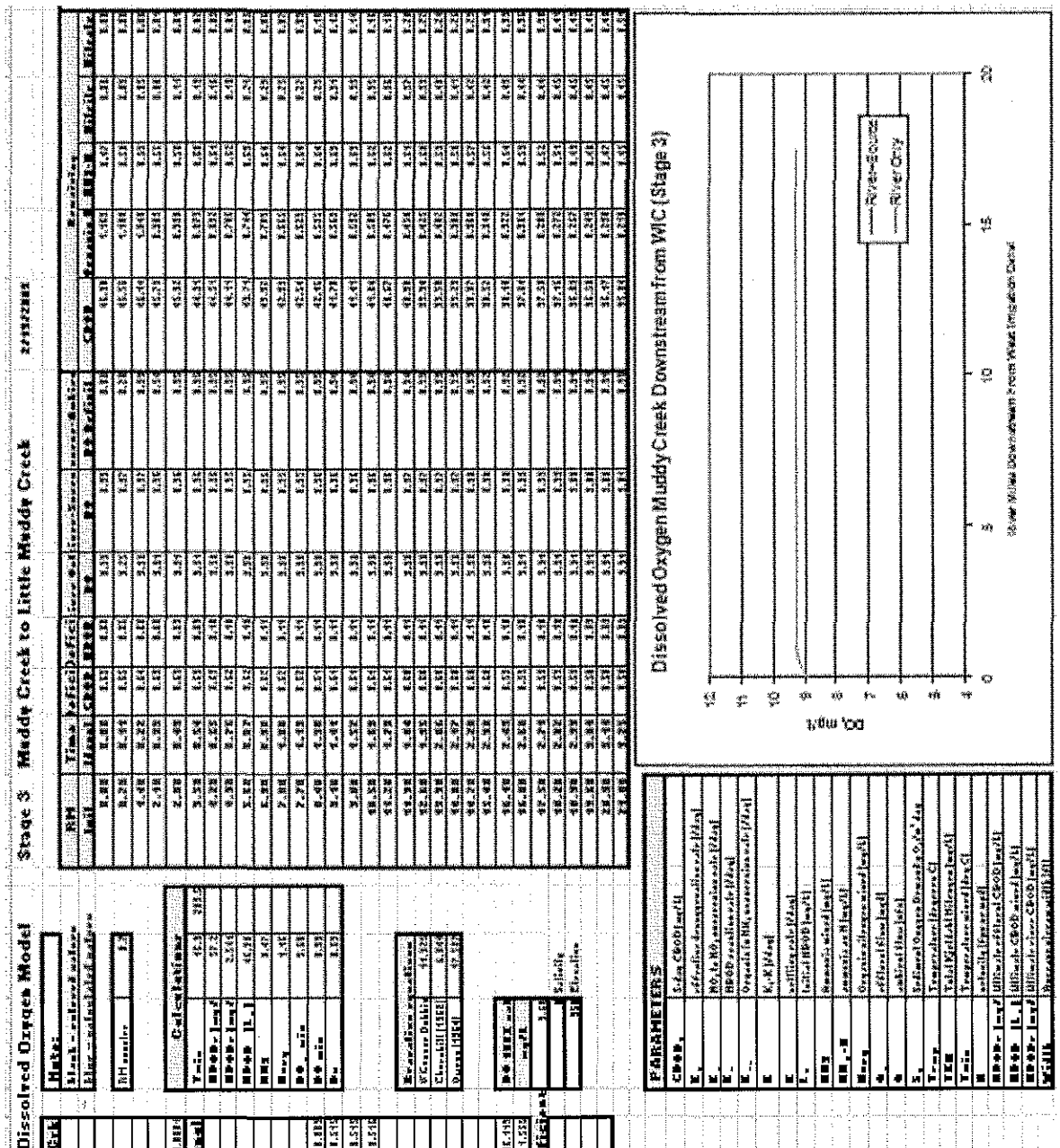
Ka Equations	
Ka (10-30	22.664
Ka (39-60	9.914

PARAMETERS	
CBOD5	5-day CBOD (mg/L)
Depth	Average stream depth (ft)
DO	Dissolved Oxygen (mg/L)
DOo	Initial DO deficit (after mixing)
Kna	Organic to NH3 conversion rate (/day)
Kr	K1+Ks (/day)
Ks	settling rate (/day)
Ln	Initial NBOD (mg/L)
NH3m	Ammonia mixed (mg/L)
NH3-N	ammonia as N (mg/L)
Norgm	Organic nitrogen mixed (mg/L)
Qe	effluent flow (mgd)
Qr	ambient flow (cfs)
SB	Sediment Oxygen Demand g O2/m² day
Temp	Temperature (degrees C)
TKN	Total Kjeldahl Nitrogen (mg/L)
Tmix	Temperature mixed (deg C)
U	velocity (fps or mpd)
UBODe (m	Ultimate effluent CBOD (mg/L)
UBODm (L	Ultimate CBOD mixed (mg/L)
UBODr (m	Ultimate river CBOD (mg/L)
Width	Average stream width (ft)

Attachment #10b – Streeter-Phelps Model Stage 1 – Muddy Creek to West Irrigation Canal



Attachment #10c – Streeter-Phelps Model Stage 1 – Muddy Creek to Little Muddy Creek



Attachment #11- Little Muddy Creek Data

Station Description	Sample Date Time	Ammonia (mg/L)	Ammonia as N (mg/L)	BOD 5 Day Un-Diluted (mg/L)	Field Dissolved Oxygen (mg/L)	Field pH (SU)	Field Temperature (°C)	Percent Saturation Field Dissolved Oxygen (%)	Total Kjeldahl Nitrogen (mg/L)
Little Muddy Creek at I-5	8/8/1971 11:00	0.02		1.6	12.6	7.1	5	98	
Little Muddy Creek at Hwy 99E	8/8/1971 12:00	0.22		1.2	11.7	6.9	6	94	
Little Muddy Creek at Hwy 99E	1/4/1972 13:00			1.5	12.7	7.1	4	97	
Little Muddy Creek at Hwy 99E	6/18/1975 11:15	0.05		1.2	9.3	7.6	16.5	94	
Little Muddy Creek at Hwy 99E	9/16/1975 12:10	0.13		3	7.6	7.2	18.5	80	
Little Muddy Creek at Hwy 99E	11/3/1975 15:10	0.06			10.5	7.6	14.5	102	
Little Muddy Creek (Muddy Creek, Willamette)	8/27/2001 12:05		0.02	<0.1	7.6	7.9	20.6	84	0.3
Little Muddy Creek (Muddy Creek, Willamette)	8/27/2001 12:06		0.02	0.8	7.7	7.9	20.6	85	0.4

Expiration Date:
Permit Number: XXXX
File Number: 115851

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
WASTE DISCHARGE PERMIT

Department of Environmental Quality
Western Region – Salem Office
750 Front Street NE, Suite 120, Salem, OR 97301-1039
Telephone: (503) 378-8240
Issued pursuant to ORS 468B.050 and The Federal Clean Water Act

ISSUED TO:
City of Coburg
P.O. Box 8316
Coburg, OR 97408

SOURCES COVERED BY THIS PERMIT:

Type of Waste	Outfall Number	Outfall Location
Treated Wastewater	001	Unnamed Tributary to Muddy Creek at R.M. 50.7 and Little Muddy Creek
Recycled Water Reuse	002	Irrigation

FACILITY TYPE AND LOCATION:
Membrane Bioreactor
Coburg Wastewater Reclamation Facility
North Coburg Road
Coburg, Oregon
Treatment System Class: Level III
Collection System Class: Level II

RECEIVING STREAM INFORMATION:
Basin: Willamette
Sub-Basin: Upper Willamette
Receiving Stream: Unnamed Tributary to Muddy Creek
LLID: 1232226445374 – 50.7 – I
County: Lane

EPA REFERENCE NO: XXXX

Issued in response to Application No. 977678 received June 23, 2006. This permit is issued based on the land use findings in the permit record.

DRAFT

John J. Ruscigno, Water Quality Manager
Western Region North

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 and discharge to public waters adequately treated wastewaters only from the authorized discharge point or points established in Schedule A and only in conformance with all the requirements, limitations, and conditions set forth in the attached schedules as follows:

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

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SCHEDULE A

1. Waste Discharge Limitations not to be exceeded after permit issuance.

a. Treated Effluent Outfall 001

(1) May 1 - October 31:

Parameter	Average Effluent Concentrations Monthly	Weekly	Monthly* Average lb/day	Weekly* Average lb/day	Daily* Maximum lbs
$CBOD_5$	10 mg/L	15 mg/L	29	47	57
TSS	10 mg/L	15 mg/L	29	47	57

(2) November 1 - April 30:

Parameter	Average Effluent Concentrations Monthly	Weekly	Monthly* Average lb/day	Weekly* Average lb/day	Daily* Maximum lbs
$CBOD_5$	30 mg/L	45 mg/L	29	47	57
TSS	30 mg/L	45 mg/L	29	47	57

* Average dry weather design flow to the facility equals 0.44 MGD. Mass load limits are based on an effluent quality of 8 mg/L and the monthly average design flow of 0.44 MGD, the average flow for the maximum week of 0.7 MGD and the maximum daily flow of 0.86 MGD.

(3) Other Parameters

Year-round (except as noted)	Limitations
E. coli Bacteria	Shall not exceed 126 organisms per 100 mL monthly geometric mean. No single sample shall exceed 406 organisms per 100 mL. (See Note 1)
pH	Shall be within the range of 6.5 - 8.5
$CBOD_5$ and TSS Removal Efficiency	Shall not be less than 85% monthly average for $CBOD_5$ and TSS (see Note 2).
Total Residual Chlorine	Shall not exceed a monthly average concentration of 0.01 mg/L and a daily maximum concentration of 0.02 mg/L (see Note 3).
Dissolved Oxygen (DO)	Shall not fall below a monthly average concentration of 6.5 mg/L, a weekly average concentration of 5.0 mg/L and an absolute minimum concentration of 4.0 mg/L.
Excess Thermal Load Limit (ETLL) when rolling 7-day average effluent temperature exceeds 18°C	Limit is calculated with the equation: $ETLL = (Q_E + (Q_R / 6.188)) * 0.3 * 3.785$ Where: Q_E = rolling 7-day average effluent flow in MGD Q_R = rolling 7-day average EIC flow in cfs EIC = East Irrigation Canal
Ammonia-N(see Note 4)	Temperature dependent (see below)
Monthly average effluent temperature ≤ 15°C	Shall not exceed a monthly average concentration of 1.5 mg/L and a daily maximum concentration of 2.9 mg/L
Monthly average effluent temperature >15°C but ≤ 17°C	Shall not exceed a monthly average concentration of 1.3 mg/L and a daily maximum concentration of 2.5 mg/L

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(3) Other Parameters (continued)

Year-round (except as noted)	Limitations
Ammonia-N(continued)	Temperature dependent (see below)
Monthly average effluent temperature >17°C but ≤ 19°C	Shall not exceed a monthly average concentration of 1.1 mg/L and a daily maximum concentration of 2.2 mg/L
Monthly average effluent temperature >19°C but ≤ 21°C	Shall not exceed a monthly average concentration of 0.95 mg/L and a daily maximum concentration of 1.9 mg/L
Monthly average effluent temperature >21°C but ≤ 23°C	Shall not exceed a monthly average concentration of 0.82 mg/L and a daily maximum concentration of 1.6 mg/L
Monthly average effluent temperature >23°C but ≤ 25°C	Shall not exceed a monthly average concentration of 0.77 mg/L and a daily maximum concentration of 1.5 mg/L
Monthly average effluent temperature >25°C	Discharge is prohibited

(5) No wastes may be discharged or activities conducted that cause or contribute to a violation of water quality standards in OAR 340-041 applicable to the Willamette Basin except as provided for in OAR 340-045-0080.

b. Recycled Wastewater Outfall 002

(1) No discharge to state waters is permitted. No recycled water use is permitted until a Recycled Water Use Plan has been approved by the Department. Upon Plan approval, recycled water may be distributed on land, for dissipation by evapotranspiration and controlled seepage by following sound irrigation practices so as to prevent:

a. Prolonged ponding of treated recycled water 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, organics, or other pollutant parameters; and,

e. Impairment of existing or potential beneficial uses of groundwater.

(2) Prior to land application of the recycled water, it shall receive Class A treatment as defined in OAR 340-055 to:

(a) Prior to disinfection, turbidity must not exceed an average of 2 Nephelometric Turbidity Units (NTUs) within a 24-hour period, 5 NTUs more than 5 percent of the time within a 24-hour period and 10 NTUs at any time.

(b) After disinfection, Total Coliform must not exceed a median of 2.2 organisms per 100 mL based on results of the last seven days that analyses have been completed, and 23 total coliform organisms per 100 milliliters in any single sample

(3) Irrigation shall conform to the Recycled Water Use Plan approved by the Department.

c. Raw sewage discharges are prohibited.

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d. No activities shall be conducted that could cause an adverse impact on existing or potential beneficial uses of groundwater. All wastewater and process related residuals shall be managed and disposed in a manner that will prevent a violation of the Groundwater Quality Protection Rules (OAR 340-040).

e. The permittee shall implement preventative maintenance practices of septic tanks as follows:

Pump residential and commercial septic tanks when sludge and scum volume exceeds 25 percent of the liquid capacity of the tanks.

f. Septage shall not be accepted at this facility for treatment or processing without written approval from the Department.

NOTES:

1. If a single sample exceeds 406 organisms per 100 mL, then five consecutive re-samples may be taken at four-hour intervals beginning within 72 hours after the original sample was taken. If the log mean of the five re-samples is less than or equal to 126 organisms per 100 mL, a violation shall not be triggered.

2. Due to preliminary treatment that occurs within the septic tanks, the influent BOD and TSS concentrations are assumed to be 200 mg/l for calculation of the percent removal efficiency.

3. When the total residual chlorine limitation is lower than 0.10 mg/L, the Department will use 0.10 mg/L as the compliance evaluation level (i.e. daily maximum concentrations below 0.10 mg/L will be considered in compliance with the limitation).

4. The ammonia limits in Condition 1.a (3) are based on the 1986 EPA Gold Book Criteria and are applied year-round. The ammonia limits are based on an assumed effluent pH of 7.6. If effluent pH is found to be significantly different, the Department may adjust the ammonia limits (up or down) based on actual pH values.

   The ammonia limits are considered interim. The State of Oregon has adopted the EPA 1999 ammonia criteria. Upon approval of the new standard by the EPA, the following ammonia limits will automatically be applied to the discharge without a permit modification:

Monthly Average Effluent Temperature	Limitations
≤ 21°C	No limit
Monthly average effluent temperature >21°C but ≤ 23°C)	Shall not exceed a monthly average concentration of 2.8 mg/L and a daily maximum concentration of 5.6 mg/L
Monthly average effluent temperature >23°C but ≤ 25°C)	Shall not exceed a monthly average concentration of 2.5 mg/L and a daily maximum concentration of 4.9 mg/L
>25°C	Discharge is prohibited.

When the revised ammonia limits are applied, they will apply year-round.

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SCHEDULE B

1. **Minimum Monitoring and Reporting Requirements** (unless otherwise approved in writing by the Department).

The permittee shall monitor the parameters as specified below at the locations indicated. The laboratory used by the permittee to analyze samples shall have a quality assurance/quality control (QA/QC) program to verify the accuracy of sample analysis. If QA/QC requirements are not met for any analysis, the results shall be included in the report, but not used in calculations required by this permit. When possible, the permittee shall re-sample in a timely manner for parameters failing the QA/QC requirements, analyze the samples, and report the results.

a. Influent

The location for taking facility influent grab and composite samples and measurements will be established in writing by the Department after Department approval of construction plans.

Item or Parameter	Minimum Frequency	Type of Sample
Total Flow (MGD)	Daily	Measurement
Flow Meter Calibration	Annually	Verification
$CBOD_5$	Weekly	Composite
TSS	Weekly	Composite
pH	2/Week	Grab

b. Treated Effluent Outfall 001

The location for taking facility effluent grab and composite samples and measurements will be established in writing by the Department after Department approval of construction plans.

Item or Parameter	Minimum Frequency	Type of Sample
Total Flow (MGD)	Daily	Measurement
Flow Meter Calibration	Annually	Verification
$CBOD_5$	Weekly	24-hour Composite
TSS	Weekly	24-hour Composite
pH	2/Week	Grab
E. coli	Weekly	Grab (See Note 1)
Quantity Chlorine Used	Daily	Measurement
Total Chlorine Residual	Daily	Grab
Pounds Discharged ($CBOD_5$ and TSS)	Weekly	Calculation
Average Percent Removed ($CBOD_5$ and TSS)	Monthly	Calculation (based on an assumed influent concentration of 200 mg/L)
Ammonia	Weekly	24-hour Composite
Dissolved Oxygen (DO)	2/Week	Grab
Temperature:		
Effluent Temperature, Daily Maximum	Daily	Continuous (see Note 2)

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b. Treated Effluent Outfall 001 (continued)

Item or Parameter	Minimum Frequency	Type of Sample
Temperature (continued):		
Effluent Temperature, Average of Maximums	Weekly	Calculation
Effluent Temperature, Average of Maximums	Monthly	Calculation
Excess Thermal Load Limit (ETLL) when rolling 7-day average effluent temperature exceeds 18°C	Daily (as a rolling seven-day average)	Calculation (see Schedule A, Condition 1.a.(3))
Excess Thermal Load (ETL) when rolling 7-day average effluent temperature exceeds 18°C	Daily (as a rolling seven-day average)	Calculation (See Note 3)

c. Biosolids Management

Item or Parameter	Minimum Frequency	Type of Sample
Sludge Depth in FSL	Annually	Measurement
Septic Tank sludge and scum	Biannually	Measurement

d. Recycled Wastewater Outfall 002

Item or Parameter	Minimum Frequency	Type of Sample
Quantity Distributed	Daily	Measurement
Flow Meter Calibration	Annually	Verification
Quantity Chlorine Used	Daily	Measurement
Total Chlorine Residual	Daily	Grab
pH	2/Week	Grab
Total Coliform	Daily	Grab
Turbidity	Hourly	Measurement
Nutrients (TKN, NO_2+NO_3-N, NH_3, Total Phosphorus)	Quarterly	Grab

e. East Irrigation Canal (EIC) upstream of discharge

Item or Parameter	Minimum Frequency	Type of Sample
Flow, daily average	Daily when rolling 7-day average effluent temperature exceeds 18°C	Continuous (see Note 4)
Flow, average of daily averages	Daily when rolling 7-day average effluent temperature exceeds 18°C	Calculation

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2. **Reporting Procedures**

a. Monitoring results shall be reported on approved forms. The reporting period is the calendar month. Reports must be submitted to the appropriate Department office by the 15th day of the following month.

b. State monitoring reports shall identify the name, certificate classification and grade level of each principal operator designated by the permittee as responsible for supervising the wastewater collection and treatment systems during the reporting period. Monitoring reports shall also identify each system classification as found on page one of this permit.

c. Monitoring reports shall also include a record of the quantity and method of use of all sludge removed from the treatment facility and a record of all applicable equipment breakdowns and bypassing.

3. **Report Submittals**

a. The permittee shall have in place a program to identify and reduce inflow and infiltration into the sewage collection system. An annual report shall be submitted to the Department by August 1 each year which details sewer collection maintenance activities that reduce inflow and infiltration. The report shall state those activities that have been done in the previous year and those activities planned for the following year.

b. By no later than January 15 of each year, the permittee shall submit to the Department an annual report describing the effectiveness of the system to comply with the approved recycled water use plan, the rules of this division, and the permit limits and conditions for recycled water.

NOTES:

1. *E. coli* monitoring must be conducted according to any of the following test procedures as specified in **Standard Methods for the Examination of Water and Wastewater, 19th Edition**, or according to any test procedure that has been authorized and approved in writing by the Director or an authorized representative:

Method	Reference	Page	Method Number
mTEC agar, MF	Standard Methods, 18th Edition	9-29	9213 D
NA-MUG, MF	Standard Methods, 19th Edition	9-63	9222 G
Chromogenic Substrate, MPN	Standard Methods, 19th Edition	9-65	9223 B
Colilert QT	Idexx Laboratories, Inc.		

2. When continuous monitors are used, a maximum one hour time interval between temperature readings should be used. Temperature data should be maintained in electronic format and made available to the Department upon request. All continuous temperature monitors are to be checked visually monthly to insure that the devices are still in place and submerged. All continuous temperature monitors must be audited quarterly following procedures described in DEQ Procedural Guidance for Water Temperature Monitoring. The Department acknowledges that uninterrupted data collection is not guaranteed due to vandalism, theft, damage or disturbance. In the event of equipment failure or loss, the permittee must notify the Department and deploy new equipment to minimize interruption of data collection. Temperatures may be estimated by any method acceptable to the Department during the period of data loss.

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3. Calculated as follows:
(Rolling seven-day average of daily maximum effluent temperatures in °C - applicable stream temperature standard, 18°C) X (Rolling seven-day average of daily flow in MGD) X 3.785 = Excess Thermal Load, in Million Kcals/day.

4. The Permittee must install a flow measuring device on the East Irrigation Canal upstream of Outfall 001 prior to the discharge of any wastewater exceeding 18°C.

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SCHEDULE D

Special Conditions

1. All biosolids shall be managed in accordance with a DEQ approved biosolids management plan and site authorization letters issued by the DEQ. Any changes in solids management activities that significantly differ from operations specified under the approved plan require the prior written approval of the DEQ.

2. This permit may be modified to incorporate any applicable standard for biosolids use or disposal promulgated under section 405(d) of the Clean Water Act, if the standard for biosolids use or disposal is more stringent than any requirements for biosolids use or disposal in the permit, or controls a pollutant or practice not limited in this permit.

3. The permittee shall meet the requirements for use of recycled water under Division 55, including the following:

   a. All recycled water shall be managed in accordance with the approved Recycled Water Use Plan. No substantial changes shall be made in the approved plan without written approval of the Department.

   b. The permittee shall notify the Department within 24 hours if it is determined that the treated effluent is being used in a manner not in compliance with OAR 340-055. When the Department offices are not open, the permittee shall report the incident of noncompliance to the Oregon Emergency Response System (Telephone Number 1-800-452-0311).

   c. No recycled water shall be made available to a person proposing to recycle unless that person certifies in writing that they have read and understand the provisions in these rules. This written certification shall be kept on file by the sewage treatment system owner and be made available to the Department for inspection.

4. Unless otherwise approved in writing by the Department (through Recycled Water Use Plan approval), a deep-rooted, permanent grass cover shall be maintained on the land irrigation area at all times. Grass shall be periodically cut and removed to ensure maximum evapotranspiration and nutrient capture.

5. The permittee shall comply with Oregon Administrative Rules (OAR), Chapter 340, Division 49, "Regulations Pertaining To Certification of Wastewater System Operator Personnel" and accordingly:

   a. The permittee shall have its wastewater system supervised by one or more operators who are certified in a classification and grade level (equal to or greater) that corresponds with the classification (collection and/or treatment) of the system to be supervised as specified on page one of this permit.

Note: A "supervisor" is defined as the person exercising authority for establishing and executing the specific practice and procedures of operating the system in accordance with the policies of the permittee and requirements of the waste discharge permit. "Supervise" means responsible for the technical operation of a system, which may affect its performance or the quality of the effluent produced. Supervisors are not required to be on-site at all times.

   b. The permittee's wastewater system may not be without supervision (as required by Special Condition 5.a. above) for more than thirty days. During this period, and at any time that the supervisor is not available to respond on-site (i.e. vacation, sick leave or off-call), the permittee must make available another person who is certified at no less than one grade lower then the system classification.

c. If the wastewater system has more than one daily shift, the permittee shall have the shift supervisor, if any, certified at no less than one grade lower than the system classification.

d. The permittee is responsible for ensuring the wastewater system has a properly certified supervisor available at all times to respond on-site at the request of the permittee and to any other operator.

e. The permittee shall notify the Department of Environmental Quality in writing within thirty days of replacement or redesignation of certified operators responsible for supervising wastewater system operation. The notice shall be filed with the Water Quality Division, Operator Certification Program, 400 East Scenic Drive, Suite 307, The Dalles, OR 97058. This requirement is in addition to the reporting requirements contained under Schedule B of this permit.

f. Upon written request, the Department may grant the permittee reasonable time, not to exceed 120 days, to obtain the services of a qualified person to supervise the wastewater system. The written request must include justification for the time needed, a schedule for recruiting and hiring, the date the system supervisor availability ceased and the name of the alternate system supervisor(s) as required by 5.b. above.

6. The permittee shall notify the DEQ Western Region - Eugene Office (phone: (541) 686-7838) in accordance with the response times noted in the General Conditions of this permit, of any malfunction so that corrective action can be coordinated between the permittee and the Department.

7. The permittee shall not be required to perform a hydrogeologic characterization or 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 adverse groundwater quality impacts (complaints or other indirect evidence) resulting from the facility's operation.

If warranted, at permit renewal the Department may evaluate the need for a full assessment of the facilities impact on groundwater quality.

8. All recycled water used at the treatment plant site for landscape irrigation shall be exempt from OAR 340-055 provided the recycled water receives secondary treatment and disinfection. All landscape irrigation shall be confined to the treatment plant site. No spray or drift shall be allowed off the treatment plant site. Landscape irrigation shall be conducted following sound irrigation practices.

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SCHEDULE F

NPDES GENERAL CONDITION – DOMESTIC FACILITIES

SECTION A. STANDARD CONDITIONS

1. Duty to Comply with Permit

The permittee must comply with all conditions of this permit. Failure to comply with any permit condition is a violation of Oregon Revised Statutes (ORS) 468B.025 and the federal Clean Water Act and is grounds for an enforcement action. Failure to comply is also grounds for the Department to terminate, modify and reissue, revoke, or deny renewal of a permit.

2. Penalties for Water Pollution and Permit Condition Violations

The permit is enforceable by DEQ or EPA, and in some circumstances also by third-parties under the citizen suit provisions 33 USC §1365. DEQ enforcement is generally based on provisions of state statutes and EQC rules, and EPA enforcement is generally based on provisions of federal statutes and EPA regulations.

ORS 468.140 allows the Department to impose civil penalties up to $10,000 per day for violation of a term, condition, or requirement of a permit. The federal Clean Water Act provides for civil penalties not to exceed $32,500 and administrative penalties not to exceed $11,000 per day for each violation of any condition or limitation of this permit.

Under ORS 468.943, unlawful water pollution, if committed by a person with criminal negligence, is punishable by a fine of up to $25,000, imprisonment for not more than one year, or both. Each day on which a violation occurs or continues is a separately punishable offense. The federal Clean Water Act provides for criminal penalties of not more than $50,000 per day of violation, or imprisonment of not more than 2 years, or both for second or subsequent negligent violations of this permit.

Under ORS 468.946, a person who knowingly discharges, places, or causes to be placed any waste into the waters of the state or in a location where the waste is likely to escape into the waters of the state is subject to a Class B felony punishable by a fine not to exceed $200,000 and up to 10 years in prison. The federal Clean Water Act provides for criminal penalties of $5,000 to $50,000 per day of violation, or imprisonment of not more than 3 years, or both for knowing violations of the permit. In the case of a second or subsequent conviction for knowing violation, a person shall be subject to criminal penalties of not more than $100,000 per day of violation, or imprisonment of not more than 6 years, or both.

3. Duty to Mitigate

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

4. Duty to Reapply

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

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

5. Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause including, but not limited to, the following:

a. Violation of any term, condition, or requirement of this permit, a rule, or a statute
b. Obtaining this permit by misrepresentation or failure to disclose fully all material facts

c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge
d. The permittee is identified as a Designated Management Agency or allocated a wasteload under a Total Maximum Daily Load (TMDL)
e. New information or regulations
f. Modification of compliance schedules
g. Requirements of permit reopener conditions
h. Correction of technical mistakes made in determining permit conditions
i. Determination that the permitted activity endangers human health or the environment
j. Other causes as specified in 40 CFR 122.62, 122.64, and 124.5

The filing of a request by the permittee for a permit modification, revocation or reissuance, termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

6. Toxic Pollutants
The permittee must comply with any applicable effluent standards or prohibitions established under Oregon Administrative Rules (OAR) 340-041-0033 and 307(a) of the federal Clean Water Act for toxic pollutants, and with standards for sewage sludge use or disposal established under Section 405(d) of the Clean Water Act, within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

7. Property Rights and Other Legal Requirements
The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege, or authorize any injury to persons or property or invasion of any other private rights, or any infringement of federal, tribal, state, or local laws or regulations.

8. Permit References
Except for effluent standards or prohibitions established under Section 307(a) of the federal Clean Water Act and OAR 340-041-0033 for toxic pollutants, and standards for sewage sludge use or disposal established under Section 405(d) of the Clean Water Act, all rules and statutes referred to in this permit are those in effect on the date this permit is issued.

9. Permit Fees
The permittee must pay the fees required by Oregon Administrative Rules.

SECTION B. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. Proper Operation and Maintenance
The permittee must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems that are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

2. Need to Halt or Reduce Activity Not a Defense
For industrial or commercial facilities, upon reduction, loss, or failure of the treatment facility, the permittee must, to the extent necessary to maintain compliance with its permit, control production or all discharges or both until the facility is restored or an alternative method of treatment is provided. This requirement applies, for example, when the primary source of power of the treatment facility fails or is reduced or lost. It is not a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

3. Bypass of Treatment Facilities
a. Definitions
(1) "Bypass" means intentional diversion of waste streams from any portion of the treatment facility. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, provided the diversion

is to allow essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs b. and c. of this section.

(2) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities or treatment processes that causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

b. Prohibition of bypass.

(1) Bypass is prohibited and the Department may take enforcement action against a permittee for bypass unless:

i. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

ii. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventative maintenance; and

iii. The permittee submitted notices and requests as required under General Condition B.3.c.

(2) The Department may approve an anticipated bypass, after considering its adverse effects and any alternatives to bypassing, when the Department determines that it will meet the three conditions listed above in General Condition B.3.b.(1).

c. Notice and request for bypass.

(1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, a written notice must be submitted to the Department at least ten days before the date of the bypass.

(2) Unanticipated bypass. The permittee must submit notice of an unanticipated bypass as required in General Condition D.5.

4. Upset

a. Definition. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operation error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or careless or improper operation.

b. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of General Condition B.4.c are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

c. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset must demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

(1) An upset occurred and that the permittee can identify the causes(s) of the upset;

(2) The permitted facility was at the time being properly operated;

(3) The permittee submitted notice of the upset as required in General Condition D.5, hereof (24-hour notice); and,

(4) The permittee complied with any remedial measures required under General Condition A.3 hereof.

d. Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

5. Treatment of Single Operational Upset

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

6. Overflows from Wastewater Conveyance Systems

a. Definitions

(1) "Overflow" means any spill, release or diversion of municipal sewage including:

i. An overflow that results in a discharge to waters of the United States; and

ii. An overflow of wastewater, including a wastewater backup into a building (other than a backup caused solely by a blockage or other malfunction in a privately owned sewer or building lateral), even if that overflow does not reach waters of the United States.

b. Reporting required. All overflows must be reported orally to the Department within 24 hours from the time the permittee becomes aware of the overflow. Reporting procedures are described in more detail in General Condition D.5. Reports concerning storm related overflows must include information about the amount and intensity of the rainfall event causing the overflow.

7. Public Notification of Effluent Violation or Overflow

If effluent limitations specified in this permit are exceeded or an overflow occurs that threatens public health, the permittee must take such steps as are necessary to alert the public, health agencies and other affected entitles (e.g., public water systems) about the extent and nature of the discharge in accordance with the notification procedures developed in accordance with General Condition B.8. Such steps may include, but are not limited to, posting of the river at access points and other places, news releases, and paid announcements on radio and television.

8. Emergency Response and Public Notification Plan

The permittee must develop and implement an emergency response and public notification plan that identifies measures to protect public health from overflows, bypasses or upsets that may endanger public health. At a minimum the plan must include mechanisms to:

a. Ensure that the permittee is aware (to the greatest extent possible) of such events;
b. Ensure notification of appropriate personnel and ensure that they are immediately dispatched for investigation and response;
c. Ensure immediate notification to the public, health agencies, and other affected public entities (including public water systems). The overflow response plan must identify the public health and other officials who will receive immediate notification;
d. Ensure that appropriate personnel are aware of and follow the plan and are appropriately trained;
e. Provide emergency operations; and
f. Ensure that DEQ is notified of the public notification steps taken.

9. Removed Substances

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters must be disposed of in such a manner as to prevent any pollutant from such materials from entering waters of the state, causing nuisance conditions, or creating a public health hazard.

SECTION C. MONITORING AND RECORDS

1. Representative Sampling

Sampling and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples must be taken at the monitoring points specified in this permit, and shall be taken, unless otherwise specified, before the effluent joins or is diluted by any other waste stream, body of water, or substance. Monitoring points may not be changed without notification to and the approval of the Department.

2. Flow Measurements

Appropriate flow measurement devices and methods consistent with accepted scientific practices must be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices must be installed, calibrated and maintained to insure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected must be capable of measuring flows with a maximum deviation of less than ± 10 percent from true discharge rates throughout the range of expected discharge volumes.

3. Monitoring Procedures

Monitoring must be conducted according to test procedures approved under 40 CFR part 136, or in the case of sludge use and disposal, under 40 CFR part 503, unless other test procedures have been specified in this permit.

4. Penalties of Tampering

The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit may, upon conviction, be punished by a fine of

not more than $10,000 per violation, imprisonment for not more than two years, or both. If a conviction of a person is for a violation committed after a first conviction of such person, punishment is a fine not more than $20,000 per day of violation, or by imprisonment of not more than four years, or both.

5. Reporting of Monitoring Results
Monitoring results must be summarized each month on a Discharge Monitoring Report form approved by the Department. The reports must be submitted monthly and are to be mailed, delivered or otherwise transmitted by the 15th day of the following month unless specifically approved otherwise in Schedule B of this permit.

6. Additional Monitoring by the Permittee
If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR part 136, or in the case of sludge use and disposal, under 40 CFR part 503, or as specified in this permit, the results of this monitoring must be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report. Such increased frequency must also be indicated. For a pollutant parameter that may be sampled more than once per day (e.g., Total Chlorine Residual), only the average daily value must be recorded unless otherwise specified in this permit.

7. Averaging of Measurements
Calculations for all limitations that require averaging of measurements must utilize an arithmetic mean, except for bacteria which shall be averaged as specified in this permit.

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

9. Records Contents
Records of monitoring information must include:

a. The date, exact place, time, and methods of sampling or measurements;
b. The individual(s) who performed the sampling or measurements;
c. The date(s) analyses were performed;
d. The individual(s) who performed the analyses;
e. The analytical techniques or methods used; and
f. The results of such analyses.

10. Inspection and Entry
The permittee must allow the Department or EPA upon the presentation of credentials to:

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

11. Confidentiality of Information
Any information relating to this permit that is submitted to or obtained by DEQ is available to the public unless classified as confidential by the Director of DEQ under ORS 468.095. The Permittee may request that information be classified as confidential if it is a trade secret as defined by that statute. The name and address of the permittee, permit applications, permits, effluent data, and information required by NPDES application forms under 40 CFR 122.21 will not be classified as confidential. 40 CFR 122.7(b).

File Number: 115851

SECTION D. REPORTING REQUIREMENTS

1. Planned Changes
The permittee must comply with OAR chapter 340, division 52, "Review of Plans and Specifications" and 40 CFR Section 122.41(l) (1). Except where exempted under OAR chapter 340, division 52, no construction, installation, or modification involving disposal systems, treatment works, sewerage systems, or common sewers may be commenced until the plans and specifications are submitted to and approved by the Department. The permittee must give notice to the Department as soon as possible of any planned physical alternations or additions to the permitted facility.

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

3. Transfers
This permit may be transferred to a new permittee provided the transferee acquires a property interest in the permitted activity and agrees in writing to fully comply with all the terms and conditions of the permit and the rules of the Commission. No permit may be transferred to a third party without prior written approval from the Department. The Department may require modification, revocation, and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under 40 CFR Section 122.61. The permittee must notify the Department when a transfer of property interest takes place.

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

5. Twenty-Four Hour Reporting
The permittee must report any noncompliance that may endanger health or the environment. Any information must be provided orally (by telephone) to DEQ or to the Oregon Emergency Response System (1-800-452-0311) as specified below within 24 hours from the time the permittee becomes aware of the circumstances.

a. Overflows.

(1) Oral Reporting within 24 hours.
i. The following information must be reported to the Oregon Emergency Response System (OERS) at 1-800-452-0311:
a) The location of the overflow;
b) The receiving water (if there is one);
c) An estimate of the volume of the overflow;
d) A description of the sewer system component from which the release occurred (e.g., manhole, constructed overflow pipe, crack in pipe); and
e) The estimated date and time when the overflow began and stopped or will be stopped.
ii. The following information must be reported to the Department's Regional office within 24 hours, or during normal business hours, whichever is first:
a) The OERS incident number along with a brief description of the event.

(2) Written reporting within 5 days.
i. The following information must be provided in writing to the Department's Regional office within 5 days of the time the permittee becomes aware of the overflow:
a) The OERS incident number;
b) The cause or suspected cause of the overflow;
c) Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the overflow and a schedule of major milestones for those steps;
d) Steps taken or planned to mitigate the impact(s) of the overflow and a schedule of major milestones for those steps; and

e) (for storm-related overflows) The rainfall intensity (inches/hour) and duration of the storm associated with the overflow.

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

b. Other instances of noncompliance.
   (1) The following instances of noncompliance must be reported:
      i. Any unanticipated bypass that exceeds any effluent limitation in this permit;
      ii. Any upset that exceeds any effluent limitation in this permit;
      iii. Violation of maximum daily discharge limitation for any of the pollutants listed by the Department in this permit; and
      iv. Any noncompliance that may endanger human health or the environment.
   (2) During normal business hours, the Department's Regional office must be called. Outside of normal business hours, the Department must be contacted at 1-800-452-0311 (Oregon Emergency Response System).
   (3) A written submission must be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission must contain:
      i. A description of the noncompliance and its cause;
      ii. The period of noncompliance, including exact dates and times;
      iii. The estimated time noncompliance is expected to continue if it has not been corrected;
      iv. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance; and
      v. Public notification steps taken, pursuant to General Condition B.7
   (4) The Department may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.
   (5) If the permittee is establishing an affirmative defense of upset or bypass to any offense under ORS 468.922 to 468.946, delivered written notice must be made to the Department or other agency with regulatory jurisdiction within 4 (four) calendar days of the time the permittee becomes aware of the circumstances.

6. Other Noncompliance

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

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

7. Duty to Provide Information

The permittee must furnish to the Department within a reasonable time any information that the Department may request to determine compliance with the permit or to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit. The permittee must also furnish to the Department, upon request, copies of records required to be kept by this permit.

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

8. Signatory Requirements

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

9. Falsification of Information

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

and up to 5 years in prison. Additionally, according to 40 CFR 122.41(k)(2), any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a federal civil penalty not to exceed $10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

10. Changes to Indirect Dischargers

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

a. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to section 301 or 306 of the Clean Water Act if it were directly discharging those pollutants and;

b. Any substantial change in the volume or character of pollutants being introduced into the POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.

c. For the purposes of this paragraph, adequate notice shall include information on (i) the quality and quantity of effluent introduced into the POTW, and (ii) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

SECTION E. DEFINITIONS

1. *BOD* means five-day biochemical oxygen demand.
2. *CBOD* means five day carbonaceous biochemical oxygen demand.
3. *TSS* means total suspended solids.
4. "*Bacteria*" includes but is not limited to fecal coliform bacteria, total coliform bacteria, and E. coli bacteria.
5. *FC* means fecal coliform bacteria.
6. *Total residual chlorine* means combined chlorine forms plus free residual chlorine
7. *Technology based permit effluent limitations* means technology-based treatment requirements as defined in 40 CFR Section 125.3, and concentration and mass load effluent limitations that are based on minimum design criteria specified in OAR Chapter 340, Division 41.
8. *mg/l* means milligrams per liter.
9. *kg* means kilograms.
10. m^3/d means cubic meters per day.
11. *MGD* means million gallons per day.
12. 24-hour *Composite sample* means a combination of at least six discrete sample aliquots of at least 100 milliliters, collected at periodic intervals from the same location, during the operating hours of the facility over a 24 hour period. Four (rather than six) aliquots should be collected for volatile organics analyses. The composite must be flow or time proportional, whichever is more appropriate. The sample aliquots must be collected and stored in accordance with procedures prescribed in the most recent edition of *Standard Methods for the Examination of Water and Wastewater*.
13. *Grab sample* means an individual discrete sample collected over a period of time not to exceed 15 minutes.
14. *Quarter* means January through March, April through June, July through September, or October through December.
15. *Month* means calendar month.
16. *Week* means a calendar week of Sunday through Saturday.
17. *POTW* means a publicly owned treatment works.

Oregon Department of Environmental Quality Memorandum

Date: June 17, 2009

To: City of Coburg NPDES Permit File #115851

State of Oregon **Department of Environmental Quality**

From: Mark E. Hamlin
DEQ Water Quality Specialist

Subject: Proposed NPDES Permit – Response to Public Comments

The Department of Environmental Quality (Department) has received and reviewed the comments submitted during the public comment period for the proposed City of Coburg National Pollutant Discharge Elimination System (NPDES) permit. The permit is necessary in order to construct, operate and discharge treated wastewater from the City's proposed wastewater treatment plant.

Besides comments received from the public, the Department received a general objection letter from the United States Environmental Protection Agency (EPA). The EPA comments focused on five areas: 1) the potential modification of the ammonia limit without following proper procedures; 2) the lack of mass based limits for chlorine and ammonia; 3) the potential modification of monitoring and reporting requirements without following proper procedures; 4) the definition of severe property damage; and, 5) the state environmental crimes provision. The EPA comments were received along with comments on seven other proposed permits in context of on-going permitting discussion between the Department and EPA. The Department's responses to these comments have not been determined at this time.

Some of the public comments received (such as late well drilling logs, property acquisition issues and unethical conduct by City staff) were not germane to the issuance of this permit and the Department did not prepare a response. In addition, this permit will be issued based on existing hydrological conditions rather than potential future scenarios that could cause the City discharge difficulties. The following is summary of relevant comments received and the Department's response to those comments.

Comment #1
Several comments were received stating that the Department did not have the authority to issue this permit to the City nor that the City had the right to discharge treated wastewater to a canal. The comments included concerns over property rights, water rights, easements for the canal and the fact that the system is man-made.

Department Response
The City of Coburg has applied for a NPDES permit for discharge of treated wastewater to the East Irrigation Canal. According to the Oregon Administrative Rules, the water in the canal is considered waters of the state. The Department has the authority to issue NPDES permits for discharges to waters of the state and proposes to take affirmative action on the City's application. The City of Coburg has assured the Department that they have the right to discharge at the proposed discharge location. No changes were made to the permit documents.

Comment #2
The permit should require submittal of a biosolids management plan.

Department Response
Biosolids will be stored in a facultative sludge lagoon for many years. By the time removal is needed, conditions, regulations and land ownership will likely have changed and a new biosolids management plan

would be needed. The Department does not believe submittal of a biosolids management plan is necessary at this time. No changes were made to the permit documents.

Comment #3
Several comments were received expressing concern about potential toxicity (particularly metals and other industrial chemicals and pharmaceuticals or personal care products) in the discharge and that the water would therefore be dangerous to use.

Department Response
Most users of the treatment plant will be residential. All industrial dischargers to the treatment plant will be regulated by the City's Sewer Use Ordinance. The treated wastewater will comply with all water quality standards and all beneficial uses will be supported.

However, there are no water quality standards for pharmaceuticals. Not enough is known about which chemicals or combinations of chemicals harm the environment or at what levels. Residuals from personal care products and pharmaceuticals can be expected in the effluent. Similar residuals are found in the effluent from all domestic wastewater treatment facilities. It is not known whether the state of the art membrane bioreactor will remove these chemical at higher rates than conventional treatment plants. In the future, if standards for these chemicals are established or some other regulatory mechanisms are developed, the City of Coburg will have to adhere to these requirements in a manner consistent with other domestic dischargers.

The addition of wastewater to the irrigation canal will adhere to all water quality standards and will not harm any beneficial use. No changes were made to the permit documents.

Comment #4
The Department is not responsible enough to regulate the City of Coburg. The creek will deteriorate. DEQ should protect and enhance the environment.

Department Response
The permit will require that the wastewater facilities be supervised by personnel certified at levels necessary to properly operate the facilities. While the NPDES program is essentially a self-monitoring program, the Department has oversight and regulatory authority and has the necessary capability to accomplish them and protect the environment. Compliance will be determined on an on-going basis and appropriate enforcement actions will be taken if and when needed. No changes were made to the permit documents.

Comment #5
The discharge will increase flooding in Muddy Creek.

Department Response
The Department disagrees. The USGS StreamStats tool was also used to estimate various flood events in Muddy Creek at I-5. The 20 year design flow of 0.44 MGD (0.68 cfs) was compared to various flood scenarios. The percent increase in flow that will be caused by the discharge is insignificant.

Statistic	Flow (ft^3/s)	% Increase
2 Year Flood	543	0.125
5 Year Flood	794	0.086
10 Year Flood	966	0.070
25 Year Flood	1190	0.057
50 Year Flood	1350	0.050
100 Year Flood	1520	0.045
500 Year Flood	1910	0.036

No changes were made to the permit documents.

Comment #6
The temperature of Muddy Creek should not be changed.

Department Response
The proposed permit prohibits the discharge from changing the stream temperature except as allowed by rule. No changes were made to the permit documents.

Comment #7
Disinfection alternatives to chlorine (such as UV) should be evaluated and used instead of chlorine if at all possible.

Department Response
The City's facility planning process evaluated disinfection alternatives and determined that the use chlorine was the best fit for the proposed project. The Department only has the authority to approve or reject a proposed project. No changes were made to the permit documents.

Comment #8
DEQ should notify the public and allow for comment when the applicant submits a draft biosolids management plan.

Department Response
The Department agrees and will follow all appropriate public notification requirements in 40 CFR Part 501 when sludge removal is required. No changes were made to the permit documents.

Comment #9
The September 26, 2009 date from the following quote from the evaluation report must be in error:

> "Willamette Total Maximum Daily Load (TMDL) was issued by the Department on September 21, 2006, and approved by the EPA on September 26, 2009."

Department Response
The Department regrets the error. The actual approval date was September 26, 2006.

Comment #10
The local Watermaster wanted to ensure Coburg was aware that land application of treated effluent for beneficial use required that the use be registered with the Water Resources Department.

Department Response
DEQ has notified the City of the requirement and will include a copy of the registration form with the issued NPDES permit. No changes were made to the permit documents.

LCOG
LANE COUNCIL OF GOVERNMENTS

June 11, 2009

Rick Watters
Department of Environmental Quality
811 SW Sixth Ave.
Portland, OR 97204-1390

Rick:

As with the previous Petition, I am addressing this Petition for Reconsideration to you rather than to the generic DEQ. Please pass this information on to the correct sector for processing.

While I know that it is a short time frame, I would like to request that, if these matters need to go to the EQC, they do so next week. Coburg is scheduled to be before the EQC with its NPDES permit application at the meeting next week. It would be most efficient for everyone, I believe, if these matters could be taken up sequentially. The Petition for Reconsideration could be taken up first because, if it is successful, Coburg would withdraw its petition for a rule change.

I am awaiting a contact from your attorney. I will be out of the office Thursday afternoon (June 11) and Friday (June 12).

Thanks,

Milo Mecham

859 Willamette Street, Suite 500, Eugene, Oregon 97401-2910
www.lcog.org 541.682.4283

Department of Environmental Quality

In the Matter of	)	
	)	
The Adoption of Intended Use Plan - Update # 3	)	PETITION FOR RECONSIDERATION
	)	
	)	
	)	

1. Petitioner's name is the City of Coburg, P.O. Box 8316, Coburg, Oregon 97408.

2. Petitioner submitted an application for funding under the Department's program developed for capitalization grant funding under the 2009 American Recovery and Reinvestment Act (ARRA). Project eligibility for ARRA funding should be determined based on the criteria set forth in the ARRA and the implementation guidelines developed by the U.S. Environmental Protection Agency.

3. Petitioner has applied for and received a clean water revolving loan fund loan prior to October 1, 2008. Petitioner is completing the design of and has begun construction of a wastewater system. The wastewater system Petitioner is constructing will be comprised of several component parts including engineering, the construction of a wastewater collection system, the construction of users STEP units (Septic Tank Effluent Pumping units), the construction of a treatment system (MBR system), and a water reuse system (purple pipe system). The existing loan agreement between the Department and the Petitioner is not adequate for fund construction of the wastewater system. The existing funding is not adequate for funding of the engineering and the collection system. Other component parts of the wastewater system will be funded from other sources. Petitioner applied for ARRA funding for the MBR system, a separate component of the wastewater system construction.

4. The Department adopted temporary rules governing applications for funding under the funds from the ARRA, including temporary rule 340-054-0106.

5. The Department developed an update to the Intended Use Plan "Proposed Intended Use Plan – Update #3" the updated IUP was made available for comment on May 6, 2009. Comments were accepted until June 9, 2009. The comment period having closed, the Department has finalized its updated IUP.

6. Petitioner's application for ARRA funding was deemed not eligible because of a misapplication of OAR 340-054-0106 because that rule was applied in a manner inconsistent with applicable EPA guidelines. The finalization of the IUP update #3 omitting Petitioner is the final action of the Department denying Petitioner access to ARRA funds. As an alternative writing constituting an order in other than a contested case, on May 12, 2009, the Department sent a written notice (email) to Petitioner's agent, informing Petitioner that it was not eligible for ARRA funding. A copy of that message is attached as Exhibit 1.

7. Petitioner requests that the Department reconsider its determination that Coburg is not eligible for ARRA funding and make a proper determination that Petitioner is eligible for ARRA funding. Following that determination, Petitioner's application, which has already been ranked as if it were eligible, should be added to the IUP – update #3.

8. The Environmental Protection Agency (EPA) has promulgated guidelines for the implementation of the ARRA funds dedicated to Clean Water Programs in the States. These guidelines can be found at the EPA website, http://www.epa.gov/water/eparecovery/ Located at that site is a document with the title "ARRA and SRF Questions and Answers volume 1. That document contains the following statements by the EPA, posed in the form of a question and EPA's answer. Relevant portions say:

- ***The refinancing limitation is for projects initiated after 10/1/2008. Does that mean that projects that begin construction after that date may be refinanced or does it include design and engineering expenses as well?***
  EPA is reading the provision as applying to any costs under debt incurred on or after that date. Costs incurred prior to that date could be refinanced using normal SRF loans.
- ***Can projects be split funded between the base SRF and the ARRA program?***
  Yes, as long as the funding from each source is separately tracked and reported according to the requirements applicable to each source.
- ***How can we have a loan with ARRA & regular SRF money? Would it have two loan agreements?***
  Some states may make loans now that include federal and non-federal funding. The agreement would have to lay out the requirements associated with the assistance. A state may want to do two separate agreements if the work could be easily broken up in order to apply different requirements to each segment, but this is not required. However, the funding from each source must be separately tracked and reported according to the requirements applicable to each source. This is consistent with OMB's February 18, 2009 guidance, which states the following, "Federal agencies must instruct recipients covered by these reporting requirements that Recovery Act funds can be used in conjunction with other funding as necessary to complete projects, but tracking and reporting must be separate to meet the reporting requirements of the Recovery Act and this Guidance. "

9. The Department's Temporary Rule 340-054-0104(3) states that "A borrower with a loan agreement executed prior to October 1, 2008 is not eligible to receive funding under the Act for the project funded with that existing loan."

10. The Department deemed Petitioner's application for ARRA funding for its purple pipe system to be sufficiently separate as a project to be eligible for ARRA funding. The Departments application of Temporary Rule 340-054-0104(3) to deem ineligible for funding Petitioner's application for ARRA funding for support of Petitioner's construction of its MBR system is a violation of the EPA guidelines. Rather than following the guidelines and treating petitioner as an eligible applicant, the Department mistakenly deemed Petitioner's application for support for its MBR system ineligible because of an existing but not necessarily applicable loan agreement.

11. To comply with EPA guidelines concerning the application of ARRA funds where there are existing loan agreements, the Department must, where the facts allow (where "*the work could be easily broken up in order to apply different requirements to each segment*"), treat an ARRA application for funding as an application for a separate project, not governed by the restriction concerning those segments that are already funded. The Department could then follow EPA guidelines by making sure that the accounting for each segment was done separately.

12. Reconsideration and correction of the Department's erroneous exclusion of the Petitioner's application could be accomplished easily. The Department could, for example, amend the IUP by combining Petitioner's application for support for its MBR system with Petitioner's listed application for funds for the purple pipe system. If the purple pipe application is corrected in terms of the Department's erroneous assignment of a score (or if the ranking is modified to the correct higher ranking awarded the MBR system) the change could be accomplished without adding another application to the IUP list. However the issue is to be addressed, the successful reconsideration should result in a modification of the IUP.

Wherefore, petitioner requests the Department of Environmental Quality reconsider its decision deeming Petitioner the City of Coburg ineligible for ARRA funding for its application for MBR system construction, and having appropriately reconsidered for the reasons set forth here, Petitioner requests that the Department correct its error by a modification of the Department's May 9, 2009 Proposed Intended Use Plan – Update #3 to include a properly ranked application by the City of Coburg for MBR construction.

Dated June 11, 2009

Milo Mecham,
Attorney for the City of Coburg

Exhibit 1

MECHAM Milo R

From: WATTERS Rick [WATTERS.Rick@deq.state.or.us]
Sent: Tuesday, May 12, 2009 9:53 AM
To: MECHAM Milo R
Cc: ISAZA Jaime; JOHNDOHL Judy
Subject: Coburg

Milo,

The Coburg application was deemed ineligible for additional consideration by the SRF loan program, and that decision will stand. We will not amend the loan agreement to change the scope of work, because the original agreement was based on the application's scope and original scoring of that application. So, my idea was not really a workable solution. Sorry.

I have copied Jaime and my manager, so they know that you have made contact about this project.

Thank you for working hard for Coburg! < Rick

State of Oregon

Department of Environmental Quality Memorandum

Date: May 22, 2009

To: Environmental Quality Commission

From: Dick Pedersen, Director

Subject: Agenda Item G, Action Item: Extension of the memorandum of understanding between the Environmental Quality Commission and Oregon Department of Agriculture for the confined animal feeding operation permit program.

What is being Revised?

The EQC and ODA memorandum of understanding needs to be extended for an additional eight months from June 30, 2009 to Feb. 28, 2010 to complete a general permit renewal.

DEQ Recommendation and EQC Motion

DEQ recommends that the EQC extend the current Oct. 2002 memorandum of understanding to Feb. 28, 2010 to allow DEQ and ODA time to establish roles and responsibilities for new program requirements after the completion of the CAFO NPDES General Permit #01 renewal process.

Key Information

The current version of the agreement has been in effect since Oct. 2002 and was extended in June 2007 to June 30, 2009, by the EQC and ODA to allow time for the CAFO National Pollutant Discharge Elimination System General Permit #01 to be renewed. DEQ is requesting an additional extension to complete the renewal of the general permit. This extension will allow ODA and DEQ to develop an up-to-date agreement to cover database reporting requirements, implementation of new public notice requirements and minor revisions to reference new definitions, statutes, and regulations.

This agreement will continue the current level of environmental protection and will not result in changes for CAFOs currently assigned to the CAFO general permit or new CAFOs seeking permit coverage. ODA will continue to conduct CAFO inspections and permit compliance activities as directed under the existing agreement.

Brief Overview of the Agreement

The memorandum of understanding explains the roles and responsibilities of ODA and DEQ for managing the statewide CAFO permit program, and defines ODA's roles and responsibilities to provide technical assistance to CAFOs, oversee program development, implementation and permit compliance activities including inspections, complaint response and enforcement.

The agreement establishes DEQ's roles and responsibilities to provide assistance and guidance to ODA on surface and groundwater quality issues associated with CAFOs, review plans when requested by ODA, work with ODA to issue water quality permits, assist ODA develop administrative rules and conduct inspection and enforcement activities in cooperation with ODA.

EPA's November 2008, CAFO final rule included additional requirements for public notice of animal waste management plans and a requirement to track enforcement actions and inspections. The updated agreement will address these concerns and define who will determine when a change to an animal waste management plan qualifies for public notice, implement the public notice process, and track and report inspections and enforcement actions to EPA.

The proposed agreement will also contain some minor revisions to reference new definitions, statutes and regulations.

Background Information

What is a CAFO?

CAFOs are generally defined as the confined feeding or holding of animals in buildings, pens or lots where the surface is prepared to support animals in wet weather or where there are wastewater treatment facilities. Typical CAFOs in Oregon include dairies, beef feedlots, poultry, swine, horse and other animal farms that apply their waste water and manure to different crops at agronomic rates. The types of wastes that are generated include manure, silage pit drainage, washdown waters, contaminated runoff and milk wastewater.

Summary of the CAFO permit program

The first water pollution control facilities CAFO NPDES General Permit #0800 was issued July 28, 1987. Initially, DEQ issued all general and individual permits to CAFOs statewide. The first permit jointly issued by ODA and DEQ was the 2003 CAFO NPDES General Permit #01, which expired July 31, 2008. A majority of CAFOs are still operating under this NPDES general permit because ODA and DEQ extended it administratively. A detailed discussion of the CAFO permit program is provided in the CAFO Program Update Memo in Attachment D.

There are currently 571 CAFOs registered to CAFO NPDES General Permit #01. Four CAFOs have individual NPDES permits because they are located in groundwater management areas and have additional requirements for groundwater monitoring. Two CAFOs remain on water pollution control facility individual permits because they applied for the

permits before the CAFO NPDES general permit was available and have to yet to start any CAFO-related activities on their sites. ODA will transfer these two permittees to the CAFO NPDES general permit if they decide to start operations.

CAFO NPDES General Permit #01 renewal

DEQ and ODA proposed renewal of the general permit was available for public comment from Sept. 11, 2008 to Oct. 27, 2008. The proposed permit was not finalized because it needed to include provisions from EPA's November 2008 final rule for concentrated animal feeding operations. While DEQ and ODA's initial general permit proposal addressed most of the new requirements of the federal rule, additional requirements for public notice of animal waste management plans were still needed. To address these changes, DEQ opened a second public comment period Feb. 2, 2009 and closed Mar. 16, 2009. DEQ and ODA anticipate issuing the NPDES CAFO General Permit #01 Aug. 1, 2009 pending EPA review and approval.

Memorandum of understanding overview

ODA and DEQ have had agreements to address CAFO regulation since the late 1980s. The agreements have changed over time to reflect the type of permitting program in place, new regulations and responsibilities assigned by the Oregon Legislature. The amended Oct. 2002 memorandum of understanding is currently in effect.

Changes to the agreement

EQC and ODA extended the Oct. 2002 agreement in June 2007 to allow time to renew CAFO NPDES General Permit #01. While this agreement is scheduled to expire on June 30 2009, DEQ and ODA require another extension to complete the permit renewal process. ODA and DEQ expect to issue the permit on Aug. 1, 2009. Extending the agreement to Feb. 28, 2010 will allow ODA and DEQ to update their agreement to cover new responsibilities. The agreement will keep maintain current areas of responsibility and assign new responsibilities.

Attachments

A. Draft of the proposed extension
B. June 2007 amendment to the memorandum of understanding
C. Oct. 2002 memorandum of understanding
D. CAFO program update memo, May 2009

Available Upon Request:

1. Oregon Department of Agriculture Natural Resources Division *Confined Animal Feeding Operations (CAFO) Program 2007 Annual Report*
2. Final draft of CAFO NPDES General Permit #01-2009 and related permit documents

Approved:

Section: _____

Division: _____

Report prepared by: Beth Moore and Ranei Nomura
Phone: (503) 229-6402 and (541) 686-7799

Attachment A
June 18-19, 2009 EQC meeting

Environmental Quality Commission and Oregon Department of Agriculture
Memorandum of Understanding
Relating to the Confined Animal Feeding Operations Amendment
(June 2009)

DRAFT

The Environmental Quality Commission and the Oregon Department of Agriculture hereby amend Article III of the Memorandum of Understanding dated Oct. 2002 as amended in June 2007, to extend the effective period from June 30, 2009 to Feb. 28, 2010.

Dick Pedersen Director of DEQ on Behalf of the Environmental Quality Commission	Katy Coba Director of ODA
Date	Date

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

7-9-07
Date

Katy Coba
Director of ODA

7-12-07
Date

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

State of Oregon
Department of Environmental Quality Memorandum

To: Environmental Quality Commission Date: May 5, 2009

From: Neil Mullane, Water Quality Division Administrator, Department of Environmental Quality (DEQ)

Ray Jaindl, Natural Resources Division Administrator, Oregon Department of Agriculture (ODA)

Subject: Update on the Confined Animal Feeding Operation Permit Program

This is an update on the Confined Animal Feeding Operation (CAFO) permit program that is being provided in advance of the June 2009 Commission meeting. The update includes information on the status of the CAFO permit program and explains the need for an extension of the Memorandum of Understanding (MOU) between the Commission and ODA which will be an agenda item on the June 2009 Commission meeting.

DEQ and ODA have been working together since the early 1980s to prevent CAFO wastes from contaminating groundwater and surface water. CAFOs are generally defined as the concentrated feeding or holding of animals in buildings, pens or lots where the surface is prepared to support animals in wet weather or where there are wastewater treatment facilities (e.g. manure lagoons). Typical facilities in Oregon that have CAFO permits include dairies, beef feedlots, poultry, swine, horse and other animal farms that apply their waste water and manure to different crops at agronomic rates.. The types of wastes that are generated include such things as manure, silage pit drainage, washdown waters, contaminated runoff, milk wastewater, and bulk tank wastewater.

Responsibilities

ODA and DEQ first entered into a Memorandum of Understanding (MOU) in 1988 for permitting and regulating CAFO facilities. At that time, DEQ issued state Water Pollution Control Facilities (WPCF) permits to CAFOs; the majority of operations were covered by the WPCF CAFO General Permit 0800. In 1993, the Oregon Legislature directed the EQC and ODA to transition the CAFO permit program from DEQ to ODA. The May 1995 MOU facilitated the transfer of the state WPCF permit program for CAFOs from DEQ to ODA.

In October 2002, the MOU was revised to reflect 2001 Oregon legislation (House Bill 2156) that authorized and directed the transfer of the federal Clean Water Act National Pollutant Discharge Elimination System (NPDES) permit program for CAFOs from DEQ to ODA, subject to approval from EPA. The October 2002 MOU is the current agreement that is in place. ODA is still in the process of pursuing delegation and is having ongoing discussions with stakeholders and agencies on the process and merits of seeking this authorization.

The CAFO program is just one regulatory arm of the ODA; ODA has a much broader role in the protection of water quality associated with agricultural activities and lands. Specifically, under this MOU with the EQC, the ODA CAFO Program has the responsibility to assure that CAFOs comply with federal and state water quality rules and statutes. This MOU specifically addresses CAFOS that require permits under ORS 468B.050(1)(d) and (2). Other animal activities that are not a

CAFO are typically addressed by other programs at ODA: for example, livestock grazing where animals may impact streamside vegetation, water quality, or cause soil erosion are regulated under ODA's water quality management program (ORS 568.900 to 933).

Under the MOU, ODA and DEQ work jointly to issue NPDES individual and general permits. ODA assigns permit coverage to the CAFO facilities that qualify for CAFO NPDES General Permit #01. ODA reviews and approves animal waste management plans required by the permits. DEQ provides assistance to ODA upon request in the review of those plans to oversee protection of groundwater or review of the design for a treatment system.

ODA conducts inspections annually, follow-up inspections and complaint inspections. DEQ refers complaints received on CAFOs to ODA for investigation and follow up and conducts inspections of CAFOs when requested by ODA or when there is a known problem to human health and the environment from a CAFO. ODA follows through on enforcement and imposes civil penalties when appropriate. ODA also maintains a database on all permit activities and produce periodic reports on the status of the CAFO permits, complaint investigations, corrective orders, enforcement actions, and civil penalties imposed. DEQ provides technical assistance and training and program guidance.

Background on Permits

When the program began, DEQ was responsible for issuing and enforcing permits and ODA was responsible for overall program administration, including inspections. The initial program used WPCF permits that prohibited CAFO wastes from entering surface waters. As a result of direction from EPA to issue NPDES permits to CAFOs that meet federal size thresholds, the program now primarily uses an NPDES general permit to regulate all CAFOs. Covering the majority of CAFOs in the state with an NPDES general permit regardless of size is viewed by DEQ and ODA as the most efficient way to administer the permit program. ODA and DEQ worked together through a joint rule making process to issue CAFO NPDES General Permit #01, which was effective August 15, 2003 and expired July 31, 2008. Permit coverage was administratively extended by DEQ and ODA for CAFOs that submitted renewal applications before the July 31, 2008 expiration date to allow DEQ and ODA to complete the renewal of the general permit.

DEQ and ODA first circulated the general permit renewal for public notice on September 11, 2008 with the public comment period closing on October 27, 2008. When EPA issued a final rule for concentrated animal feeding operations on November 20, 2008, DEQ and ODA reviewed the rule and decided to revise the proposed general permit before making it final. While the initial proposal had addressed most of the new requirements in the federal rule, DEQ and ODA needed to incorporate the federal requirements for public notice of substantial changes proposed to animal waste management plans developed by concentrated animal feeding operations. The revised general permit was open for public comment on February 2, 2009 with the close of the comment period on March 16, 2009. The NPDES CAFO general permit # 01-2009 will be issued pending EPA review and approval.

Whereas the 2003 CAFO general permit was issued through a joint rule making effort, the renewal of the general permit will be issued through a department order. DEQ and ODA now have the authority under ORS 468B.050(2) to issue general permits through department order as a result of a recommendation in 2004 from DEQ's Blue Ribbon Committee, which was convened to work on permit program issues. In 2005, DEQ and ODA were explicitly granted this authority by the Oregon Legislature in Senate Bill 45. ODA and DEQ will jointly issue the permit renewal by department order as discussed with EQC in late 2007. When a permit is issued by department order, the appeal process is a contested case hearing before the EQC or its authorized representative.

A summary of the major changes to the general permit are shown below.

ISSUE	EXISTING PERMIT	FINAL PERMIT
Explanation of ODA/DEQ approach to regulating CAFOs	Not included.	Included to explain that permit coverage is required even if a CAFO does not propose to discharge to waters of the U.S. because state statute requires permit. Also, as a result of this state statute, there is no certification process as described in CFR to certify that there is no discharge to waters of the U.S. .
Explanation of need to request confidentiality	Not included.	Included because of new public notice provision, see below.
Public participation (public notice and hearing opportunity)	1. Issuance of general permit was noticed and hearings were held. 2. Individual registrations to general permit were not noticed.	(Note: Renewal of general permit was noticed and a hearing provided.) 1. To comply with 2008 EPA federal regulation, individual ATRs and their AWMPs must be noticed. Permit requires: • Public notice for 35 days of new registrations (detailed information provided) through newspaper, website, and email. • Expedited public notice for 35 days for renewal registrations (facility name and county provided) through email and website. • Opportunity for public hearing. 2. 2008 EPA federal regulation also requires public notice of "substantial changes" to AWMP for *concentrated animal feeding operations*. Permit requires: • Public notice for 35 days through email and website when "substantial changes" are proposed. • Opportunity for public hearing. 3. ODA and DEQ developed list of "substantial changes" for *small and medium confined animal feeding operations.* Permit requires: • Public notice for 14 days through email and website when "substantial changes" are proposed. • Opportunity for public hearing.
Applications to frozen soil	Not included.	New requirement to include frozen soil application procedures in AWMP
Applications to saturated soils		Clarification that in some cases an application to saturated soils may be a desired alternative to allowing waste storage facilities to overflow directly to surface waters. In these situations, the application is considered an "upset" and general condition G18 must be followed.
Setback requirement	*Large concentrated animal feeding operation* requirement for 100ft setback, 35ft vegetative buffer, or demonstration of alternative.	Setback requirement expanded to all CAFOs, but no size specification for non-large concentrated animal feeding operations.
AWMP elements		More information on land application protocols that need to be detailed added. Compost management plan requirement if applicable under OAR 340-096 included. Added requirements for frozen soil applications and requirement to include procedures for transfer or export of manure, litter, or process waste water.

ISSUE	EXISTING PERMIT	FINAL PERMIT
Additional monitoring		Added statement to notify permittees that if they have two or more discharges within a 24 month period that are not associated with a 25-year, 24-hour or greater rainfall event, ODA may require surface water and/or groundwater quality monitoring or transfer the permittee to an individual permit.

Permit Program Operations

The CAFO Permit Program is currently funded by ODA's budget with 95% General Fund and 5% fees. In the budget consideration before the 2009 Oregon Legislature, there is one full-time equivalent (FTE) position of the 9.5 FTE CAFO Program staff included in the agency 30% budget reduction. With the proposed budget levels, ODA has sufficient resources to implement the CAFO Program at its current level with program delivery changes. The position under review is currently vacant and its workload has been redistributed to other positions. To address the reduction in staffing, ODA is considering program changes, such as reducing the frequency of inspections at CAFOs with good compliance histories or prioritizing complaint response according to severity. With these changes, ODA expects that it will have sufficient resources to continue implementation of the program.

There are currently 571 CAFOs registered to the CAFO NPDES General Permit. Four CAFOs have NPDES individual permits and 2 have WPCF permits. It has been ODA's practice to inspect each permitted CAFO on an annual basis. Over the five-year term of the 2003 general permit, ODA conducted approximately 2830 inspections of CAFOs. About 80% of the CAFOs inspected were found to be in compliance with permit conditions; non-compliance ranged in severity. For example, of the CAFOs inspected by ODA in 2007, less than 3% were discharging wastes in violation of permit conditions and less than13% were in violation of reporting, recordkeeping, or other operational requirements. A large part of the 2008 permit violations was due to an increase in noncompliance with the administrative side of permit compliance, such as failure to submit a required report.

A summary of inspection and enforcement actions for the last three years is provided below.

Year	Total Inspection activity	Permit Violations	Notice of Noncompliance/Plan of Correction	Notice of Civil Penalty Assessment	Consent Order
2008	1006	291	285	3	3
2007	724	116	101	15	0
2006	805	69	66	1	2

Oversight of the CAFO Permit Program

ODA, DEQ, and EPA have been holding joint annual meetings to review the CAFO Permit Program. ODA develops a report of program activities each year that is reviewed by DEQ and EPA. DEQ believes that ODA's program effectively protects water quality because they have a strong inspection program and they are responsive to complaints. ODA provides routine inspections as well as technical assistant inspection. Their response time to complaints is typically two days.

ODA and DEQ routinely interact on technical issues in part because some of the offices are shared with DEQ staff. ODA and DEQ have constant interchange during the review and writing of groundwater monitoring area reports, one such example is the collaboration that occurs for the

Lower Umatilla Groundwater Monitoring Area. ODA has also requested DEQ assistance on inspections for support: DEQ provides a 'different pair of eyes' and gives feedback on their observations and their perspective on compliance. One ODA/DEQ joint inspection was conducted in 2006 and one was conducted in 2009.

EPA and ODA have a Memorandum of Agreement (2003), which includes the opportunity for joint inspections. EPA conducted 32 joint inspections with ODA in 2008 to evaluate ODA program delivery and CAFO compliance. The 2008 EPA/ODA joint inspections resulted in EPA issuing 13 letters of facility in compliance, seven (7) warning letters, 13 Notice of Violation letters and one (1) Notice of Intent (to pursue penalty). Two (2) of the CAFOs that were issues Notices of Violation by EPA were also issued Notices of Civil Penalty Assessment by ODA with EPA review and concurrence on the resulting enforcement action.

Future Consideration for the MOU

The current MOU has been in effect since October 2002 and was extended in June 2007 by EQC to allow time to renew CAFO NPDES General Permit #01. The MOU is scheduled to expire on June 30, 2009. Another extension is necessary to allow for the completion of the permit renewal process. ODA and DEQ expect that the permit will be issued August 1, 2009. The extension will allow ODA and DEQ to develop an up-to-date MOU that will cover the following key new activities: implementation of public notice and comment requirements and reporting data to EPA's database. DEQ and ODA intend to amend the MOU to provide a **short 8-month** extension. Therefore, DEQ and ODA will be requesting an extension of the existing MOU until February 28, 2010 at the upcoming June EQC meeting.

Agenda Item G, Action Item:

Extension of the Memorandum of Understanding between the EQC and Oregon Department of Agriculture for the Confined Animal Feeding Operation Permit Program

Outline

- Background
- History
- Confined Animal Feeding Operation (CAFO) Permit Program Update
- Memorandum of Understanding
  - Current agency responsibilities
  - Need for extension
- Next Steps

Background

- It is the policy of the State of Oregon to protect the quality of waters of this state by preventing animal wastes from discharging into waters of the state. *ORS 468B.200*
  - Manure, silage pit drainage, washdown waters, contaminated runoff from production area, milk wastewater, etc.
- "Confined animal feeding operation" or "CAFO"
  - Confined feeding or holding of one or more animals in buildings, pens, or lots on a surface prepared to support animals in wet weather

Program History

- Regulation began in the early 1970s to prevent CAFO wastes from contaminating groundwater and surface water
- The permit program began in the 1980s
  - ODA functioned as the overall program administrator and investigating authority
  - DEQ was the permit issuing and enforcement entity
- Since 1995, the Oregon Department of Agriculture (ODA) has been the primary regulatory agency for CAFOs with DEQ providing assistance on permit and enforcement issues
  - ODA also has broader role in the protection of water quality associated with agricultural activities and lands

When does a CAFO need a permit?

- CAFOs of any size if they have waste water treatment facilities (e.g., manure lagoons or digesters)
- CAFOs that meet the federal definition of a *large concentrated animal feeding operation*
  - ≥700 mature dairy cows
  - ≥2,500 hogs 55+lbs
  - ≥10,000 sheep or lambs
  - ≥82,000 chickens with dry manure system
- CAFOs with ongoing compliance problems

Permit Program Overview

- 571 CAFOs registered to CAFO General Permit #01
- 6 CAFOs with individual permits
- 114 (~20%) meet the federal definition of *large concentrated animal feeding operations*

Status of CAFO General Permit #01

- Effective August 15, 2003; expired July 31, 2008
- Administratively extended
- Proposed renewal being reviewed by the Environmental Protection Agency (EPA)
- Expect to issue renewed permit by August 2009

Oversight of CAFO Permit Program

- ODA, DEQ, and EPA meet annually to review the permit program
- DEQ and EPA review ODA's annual report of program activities on a yearly basis
- EPA conducted 32 joint CAFO inspections with ODA in 2008
  - 13 CAFOs in compliance
  - 7 CAFOS issued warning letters
  - 9 CAFOs violating permit requirements
  - 3 CAFOs discharged to surface waters (EPA fined the CAFO that met the definition of a *large concentrated animal feeding operation*; ODA fined the other two smaller CAFOs)

CAFO Permit Program Protects Water Quality

- Strong inspection program
  - Inspect CAFO permittees at least once a year
- Responsive to complaints
  - Regional inspectors located in 5 CAFO geographical boundaries
- Technical assistance provided to CAFO permittees

Results of ODA Inspection Program

- Over the five-year term of the 2003 general permit, ODA conducted approximately 2830 inspections
  - About 80% of the CAFOs inspected were found to be in compliance with permit conditions; non-compliance ranged in severity.
  - Of the CAFOs inspected by ODA in 2007, less than 3% were discharging wastes in violation of permit conditions and less than 13% were in violation of reporting, recordkeeping, or other operational requirements

Memorandum of Understanding (MOU) History

- *1988*: Agreement to specify each agency's responsibilities for permitting and regulating CAFOs
- *1995*: Update to address the transition of the state CAFO permit program from DEQ to ODA
- *2002*: Update to implement legislative directive to transfer the federal Clean Water Act permit program for CAFOs from DEQ to ODA
- *2007*: Extension to 2002 MOU; expires June 30, 2009

Current ODA Responsibilities

- Assigns permit coverage to the CAFO facilities that qualify for CAFO General Permit #01
- Reviews and approves animal waste management plans required by the permit
- Conducts inspections annually, follow-up inspections, and complaint inspections
- Conducts enforcement and imposes civil penalties
- Maintains a database on all permit activities
- Reports on status of CAFO permittees, complaint investigations, corrective orders, enforcement actions, and civil penalties

Current DEQ Responsibilities

- Provides assistance in plan review or review of treatment system design
- Refers complaints received on CAFOs to ODA for investigation and follow-up
- Conducts inspections of CAFOs when requested by ODA
- Provides technical assistance, training, and program guidance

Need for MOU Extension and Update

- Need to complete general permit renewal prior to updating MOU
  - Permit expected to be issued by August 2009
- Update needed to cover new activities
  - Implementation of public notice requirements for permit registration and changes to animal waste management plans
  - Reporting of data to EPA

Next Steps

- DEQ requests EQC approval to extend MOU to February 28, 2010
- If approved, DEQ and ODA will provide EQC with an action item request to approve an updated MOU in December 2009

State of Oregon
Department of Environmental Quality Memorandum

Date: May 22, 2009

To: Environmental Quality Commission

From: Dick Pedersen, Director

Subject: Agenda Item H, Action Item: Request from U.S. Army Corps of Engineers for a waiver renewal to the total dissolved gas water quality standard on the Columbia River for fish passage

Why This is Important

Releasing water over a dam's spillway is a fishery-management tool on the Columbia River. However, spilling water over dams increases the level of total dissolved gas in the river. Water plunging from a spillway traps air and carries it to a depth where the pressure forces the gas into solution. Total dissolved gas levels above 110 percent of saturation can cause gas bubble trauma in fish.

Oregon adopted the U.S. Environmental Protection Agency's total dissolved gas criteria of 110 percent of saturation. The 110 percent total dissolved gas standard protects beneficial uses of the Columbia River, and protects aquatic life, such as endangered and threatened salmon and trout salmonid species.

The U.S. Army Corps of Engineers is requesting a waiver to Oregon's 110 percent total dissolved gas water quality standard. The waiver would allow the voluntary spilling of water at the Bonneville Dam, The Dalles Dam, John Day Dam and McNary Dam along the Columbia River to assist fish passage of out-migrating salmon and trout salmonids.

DEQ Recommendation and EQC Motion

DEQ recommends that the EQC grant the total dissolved gas waiver as requested by the Army Corps of Engineers with the following modifications:

1. Grant a seasonal waiver instead of the requested year-round waiver. The seasonal waiver would allow for voluntary fish passage spill to occur for the historic period of midnight Apr. 1 to midnight Aug. 31;

2. Remove the 115 percent total dissolved gas limit and monitoring in the forebay above each dam and manage fish passage spill to a 120 percent limit as measured below each dam in the tailrace. Total dissolved gas would be calculated as the average of the 12 highest hours per one day; and

3. Include an adaptive management component as specified in the 2002 Lower Columbia River total dissolved gas total maximum daily load.

The draft recommended total dissolved gas waiver is presented in Attachment D.

Background

The voluntary spill program is designed to improve fish passage past the dams while minimizing the risk from total dissolved gas.

Fish migration

In order to survive, juvenile fish must be able to migrate downstream past the Columbia River dams. Turbines at these hydro electric dams hinder migration, so water is deliberately spilled from McNary, John Day, The Dalles, and Bonneville Columbia River dams to improve fish passage. This is commonly referred to as voluntary fish passage spill. These spills, however, increase total dissolved gas in the river to levels greater than the water quality standard of 110 percent.

When total dissolved gas levels are too high it can harm migrating juvenile and adult salmonids by causing gas bubble trauma, similar to the bends in humans.

Balancing spills and total dissolved gas for fish survival

The incidence of gas bubble trauma in salmon smolts due to fish passage spill is estimated at 1.4 percent when total dissolved gas levels are managed to 120 percent below the dam in the tailrace. This estimate is based on smolt monitoring data collected between 1995 and 2007. Historically, fish passage spill has been managed to a total dissolved gas limit of 115 percent in the forebay upstream of the dam and 120 percent downstream of the dam in the tailrace, with less than one percent incidence of gas bubble trauma. DEQ removed the forebay upstream limit in 2009 by a departmental order based on the findings of the adaptive management team and expects this to be protective of migrating salmonids during voluntary fish passage spill (http://www.ecy.wa.gov/pubs/0910002.pdf).

When the in-river total dissolved gas levels are below 120 percent, few, and in some cases no, migrating fish display signs of gas bubble trauma. Since 1.4 percent is a low incidence of gas bubble trauma and because spills result in increased salmon survival, a waiver from strict adherence to the 110 percent standard allows for the benefits of spill, which outweigh the risk from total dissolved gas.

Historical choice of voluntary spills

The EQC has granted waivers to the US Army Corps of Engineers for total dissolved gas since 1994. EQC has granted the waivers because of the low incidence of gas bubble trauma and the effectiveness of voluntary spill for fish passage. The National Marine Fisheries Service has identified voluntary spill as the safest, most effective tool available for improving downstream smolt survivorship. DEQ would have to give the Army Corps of Engineers approval prior to any voluntary spill required outside of the historic period for the purpose of Spring Creek Hatchery fish release, maintenance activities and biological or physical studies of spillway structures and prototype fish passage devices. The Corps must

notify and request approval from DEQ in writing at least one week prior to the voluntary spill describing the action, the purpose of the action and dates of action. The Army Corps of Engineers will conduct physical and biological monitoring during these periods of voluntary spill.

Biological Opinion

The *Biological Opinion* is published by the US National Oceanic and Atmospheric Administration 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. The *Biological Opinion* requires voluntary fish passage spill at Columbia River dams to support fish migration even when it results in total dissolved gas super-saturation above the state's 110 percent standard.

The Army Corps of Engineers is currently operating in accordance with the 2008 *Biological Opinion* reasonable and prudent alternative actions. The *Biological Opinion* concluded that the risk associated with a managed voluntary fish spill up to the 120 percent total dissolved gas level is warranted by the projected four to six percent increase in system survival of juvenile salmonids. The *Biological Opinion* relies on DEQ to make the determination of what the range of total dissolved gas would be for the waiver.

Alternatives to voluntary spills

Voluntary fish passage spill is a low risk method for fish to move downstream. The *Biological Opinion* estimated mortality from fish passing through turbines between seven and 14 percent, and mortality due to fish passage spill between zero and two percent.

Barge and truck transport are alternative modes of fish transport but are not a preferred alternative. Transported fish become disoriented and stray to other hatcheries or cannot find acceptable spawning habitat, resulting in significantly lower return and spawning rates.

Rearing and releasing more fish to make up for those that would be lost to turbines or other causes during fish passage is another possible alternative to spill. The US Fish and Wildlife Service determined that it is not possible to raise additional fish because there is not enough rearing space, water supply and waste treatment capability at the hatcheries to support these additional fish.

Terms of current waiver

The current waiver allows for fish passage spill Apr. 1 through Aug. 31 at Bonneville, The Dalles, John Day, and McNary dams. The waiver requires physical monitoring of total dissolved gas below the dam in the tailrace with a limit of 120 percent measured as the 12 highest hours in a day, biological monitoring of gas bubble trauma in fish during the spill period and annual reporting to DEQ.

Total Maximum Daily Load (TMDL) Allows Spills

In 2002, Oregon and Washington issued a Lower Columbia River total dissolved gas total maximum daily load that was approved by EPA. The total maximum daily load allows fish passage spills until 2020 with a provision that operational and structural modifications that reduce total dissolved gas generated during spill must be in place by that time. The goal of the total maximum daily load is to meet the 110 percent total dissolved gas state criteria while allowing for voluntary fish passage spill.

The Army Corps of Engineers operates the dams and is responsible for implementing the operational and structural modifications identified in the total maximum daily load. The four lower Columbia River dams are located in bi-state waters. The State of Washington criteria states that fish passage spill will be managed to 115 percent in the forebay above the dam and 120 percent below the dam in the tailrace calculated as the highest consecutive hours in a "rolling" day. The Army Corps of Engineers will need to manage fish passage spill according to both the Oregon and Washington total dissolved gas limits, making sure to not exceed either state's limits

Request to Renew the Total Dissolved Gas Waiver

U.S. Army Corps of Engineers request for a waiver

On Jan. 9 DEQ received a request from the Army Corps of Engineers, with support from the US Fish and Wildlife Services and National Marine Fisheries Service, to renewal the waiver to the state's total dissolved gas standard. The current total dissolved gas waiver was issued in 2007 for a two-year period and will expire at midnight Aug. 31, 2009. The requested waiver needs to be in place by Apr. 1, 2010 in order to provide spill for fish passage.

Year-round waiver requested

The Army Corps of Engineers is requesting a year-round waiver to the states 110 percent of saturation total dissolved gas criteria for five years, beginning in 2010 and extending through 2014. The Corps will continue biological monitoring during fish passage spill.

Above- and below-dam total dissolved gas monitoring

The Army Corps of Engineers is requesting to manage fish passage spill to 115 percent saturation as measured above the dam in the forebay and 120 percent saturation below each of the dams in the tailrace. The Corps 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 request summary and supporting information, including DEQ's findings, are presented in Attachment B.

Public Input

DEQ issued a public notice on February 19, 2009 opening a 30 day public comment period.

DEQ received four comment letters from:

1. Save Our Wild Salmon
2. Columbia Riverkeeper
3. Columbia River Inter-Tribal Fish Commission
4. State, Federal and Tribal Fishery Agencies Joint Technical Staff Memo, signed by:
    - Columbia River Inter-Tribal Fish Commission
    - Idaho Department of Fish and Wildlife
    - Oregon Department of Fish and Wildlife
    - Washington Department of Fish and Wildlife
    - U.S. Fish and Wildlife Service
    - Nez Perce Tribe

Each of the four comment letters received stated that they concur and support the requirements of the proposed waiver.

The response to comments document is presented in Attachment C.

Future Management of Total Dissolved Gas

Adaptive management through multi-agency collaboration

The review the 2002 Lower Columbia River total dissolved gas standard implementation will continue. As directed in the total maximum daily load, the Washington State Department of Ecology will convene an advisory group with representatives from DEQ, the tribes, federal and state agencies to evaluate appropriate points of compliance. Based on these findings, further studies may be needed, and structural and operational gas abatement activities will be redirected or accelerated if needed.

EQC Action Alternatives

The EQC has two action alternatives:

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

   (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.

2. Decline the request.

Attachments

- **A.** Oregon Administrative Rule Relating to the Total Dissolved Gas Water Quality Standard
- **B.** Summary of U.S. Army Corps of Engineers Request to Renew the Total Dissolved Gas Waiver and Department Findings
- **C.** Response to Public Comments on the Proposed Total Dissolved Gas Waiver
- **D.** Draft Recommended Total Dissolved Gas Waiver
- **E.** EQC Power Point Presentation: Action Item, U.S. Army Corps of Engineers Request to Renew the Columbia River Total Dissolved Gas Waiver

Available Upon Request

- U.S. Army Corps of Engineers' request and summary of information relative to the total dissolved gas waiver
- 2002 Lower Columbia River total dissolved gas total maximum daily load

Approved:

Section: _____

Division: _____

Report prepared by: Agnes Lut
Phone: (503) 229-5247

Oregon Administrative Rule on the Total Dissolved Gas Water Quality Standard

Oregon's Water Quality Standards are contained in Oregon Administrative Rule (OAR) 340, Division 41. The standards relevant to total dissolved gas 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.

Summary of U.S. Army Corps of Engineers request to renew the total dissolved gas waiver and DEQ findings

Federal agencies providing information

The U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, and National Oceanic and Atmospheric Administration Fisheries are providing the necessary information for Oregon to use in processing waivers to the state water quality standard for total dissolved gas. The waivers will be enacted as a water quality standard waiver for Oregon and rule modification for Washington.

The Army Corps of Engineers is authorized under federal statutes to operate the eight mainstem projects on the lower Columbia and lower Snake Rivers to provide passage for migratory salmonids and are the focus of these waivers. 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 including flood control, power generation, navigation, irrigation, fish and 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 US Fish and Wildlife Service operates fish hatcheries in the Columbia River basin to augment fish stocks and improve fisheries.

NOAA Fisheries identifies and regulates activities under the federal Endangered Species Act to protect 12 species of anadromous salmon and steelhead in the Columbia River basin. Since 1992, NOAA Fisheries has prepared several Biological Opinions on operation of the Columbia and Snake hydro system which call for project spill in the spring and summer for juvenile fish passage. The spill levels needed to protect Endangered Species Act-listed fish species often exceed the Oregon and Washington water quality standards of 110 percent for total dissolved gas saturation. The corps is currently operating in accordance with the 2008 NOAA Fisheries Federal Columbia River Power System Biological Opinion Reasonable and Prudent Alternatives.

Need for the proposed waiver

The proposed total dissolved gas waiver will provide regulatory consistency between federal measures to protect Endangered Species Act listed fish species and state water quality standards.

Total dissolved gas limits for the waivers

The Army Corps of Engineers, Reclamation, and Bonneville Power Administration are currently operating in accordance with the 2008 Biological Opinion Reasonable and Prudent Alternative Action 29. The action supports spill management not to exceed the state's total dissolved gas limits. The opinion does not recommend or identify a numeric total dissolved gas threshold for state water quality agencies to include in the waiver for voluntary spill purposes, but rather relies on the States to make that determination.

The corps and Bonneville Power Administration will provide spill to improve juvenile fish passage while avoiding high total dissolved gas super saturation levels or adult fallback problems. Specific spill levels will be provided for juvenile fish passage at each project, not to exceed established total dissolved gas levels

The total dissolved gas limits will be calculated by taking the average of either the 12 highest hourly total dissolved gas readings in a day, or the 12 highest consecutive hourly total dissolved gas readings in a day, whichever method yields the highest daily average for the four lower Columbia River projects, which are located in bi-state waters. The Oregon waiver specifies the highest hours in a day, which can be non-consecutive, while the current Washington criteria specifies the highest consecutive hours in a day. Using the highest daily average of the two will assure that the total dissolved gas limits will not be exceeded for either state.

Timing and location for application of proposed limits and points of compliance
The US Army Corps of Engineers requests that the total dissolved gas waiver apply year round on the lower Columbia River. Operational Biological Opinion spill for fish passage on the lower Snake River currently begins on Apr. 3 and continues through Aug. 31. On the lower Columbia River, Biological Opinion spill currently starts on Apr. 10 and also continues through Aug. 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 percent water quality standard for total dissolved gas 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 or spillway, which could exceed the 110 percent water quality standard for total dissolved gas. For these reasons, the Army Corps of Engineers would prefer for the state to process a year round waiver to the water quality standard for total dissolved gas.

If a seasonal waiver is issued, the corps requests that the waiver provide for tests and special operations. It would be feasible for the corps to implement a procedure to provide the state with prior notification when the total dissolved gas standard may be exceeded outside the identified fish passage spill season.

A fixed monitoring site located downstream of the aerated zone below the spillway at each dam will serve as the compliance point for the total dissolved gas total maximum daily load. The corps' total dissolved gas monitoring network includes sites on the mainstem Columbia River including the mid-Columbia projects and upstream to the international border with Canada, and the Snake River below Dworshak Dam in Idaho. Total dissolved gas in the river is measured every hour at each monitoring site during the duration of the fish passage spill period.

DEQ findings

DEQ finds that a seasonal, not year-round, waiver is warranted. Since 1994, Oregon has granted the Army Corps of Engineers a seasonal waiver. Historically, the corps has worked cooperatively

with DEQ by providing notification of voluntary spill outside the fish passage spill season for the purpose of activities and biological or physical studies of spillway structures and prototype fish passage devices. This type of spill occurs once a year, if at all.

The Fish Passage Center estimates a 1.4 percent incidence of gas bubble trauma in salmon smolts in the Columbia River when total dissolved gas levels are managed to 120 percent below the dam in the tailrace. This estimate is based on smolt monitoring information collected between 1995 and 2007. When the in-river total dissolved gas levels are below 120 percent, few adult fish display signs of gas bubble trauma. Investigators have observed adult tolerance to total dissolved gas and hypothesized that it was attributable to the migration depth of adult salmonids. Depth-sensitive radio tags used in adult migration studies confirmed that adults migrate at depths up to four meters and find depth compensation protection from gas bubble trauma. For every meter below the surface water, a reduction of 10 percent total dissolved gas is measured in the water column. Resident fish and aquatic invertebrates in the Columbia River downstream of Bonneville Dam were monitored by National Marine Fisheries Service from 1993 to 1998 for signs of gas bubble disease. There were no signs of gas bubble disease observed in the aquatic invertebrates examined. There was less than one percent incidence of gas bubble disease 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 120 percent below the dams.

DEQ finds that, given the results of past monitoring of gas bubble disease and the findings of the adaptive management team regarding the decision to remove the forebay above-dam monitors from the current total dissolved gas waiver, the waiver requested by the Army Corps of Engineers strikes a reasonable balance between increased survival due to reduced turbine mortality and the risk of mortality from gas bubble disease.

Response to Public Comments on the Proposed Total Dissolved Gas Waiver

DEQ issued a public notice Feb. 19, 2009 opening a 30 day public comment period concerning the U.S. Army Corps of Engineers request for a waiver to Oregon's 110 percent total dissolved gas water quality standard. The waiver would allow the voluntary spilling of water at the Bonneville Dam, The Dalles Dam, John Day Dam and McNary Dam on the lower Columbia River to assist fish passage of out migrating threatened and endangered salmon and trout salmonids. The proposed waiver requires fish passage spill to be managed to 120 percent below the dam in the tailrace and for biological monitoring to occur during the duration of the fish passage spill season. No public hearing was held during the 30 day public comment period. Written comments were due at 5:00 p.m. on Mar. 23, 2009.

DEQ received four comments during the public comment period:

1. Save Our Wild Salmon
2. Columbia Riverkeeper
3. Columbia River Inter-Tribal Fish Commission
4. State, Federal and Tribal Fishery Agencies Joint Technical Staff Memo, signed by:
   - Columbia River Inter-Tribal Fish Commission
   - Idaho Department of Fish and Wildlife
   - Oregon Department of Fish and Wildlife
   - Washington Department of Fish and Wildlife
   - U.S. Fish and Wildlife Service
   - Nez Perce Tribe

Each of the four comment letters stated that they concur and support the requirements of the proposed waiver to the total dissolved gas water quality standard for the mainstem Columbia River.

Summary of Public Comments Received and Department Response:

Comment:
The commenters support extending the total dissolved gas waiver under the proposed order to a five year period. They state that the waiver is warranted given the large amount of data that support the spill provisions in the proposed waiver, as well as a reduction in unnecessary administration processes.

DEQ Response:
DEQ agrees with the comments, and will prepare a recommendation to the Environmental Quality Commission for approval of the proposed waiver to the total dissolved gas water quality standard for the mainstem Columbia River issued to the U.S. Army Corps of Engineers.

Comment:
The commenters support the proposed waiver and believe it is appropriate. However, they urge DEQ to state explicitly in the waiver that the Camas/Washougal forebay above-dam monitoring station is unreliable, unnecessary and inconsistent both with the approach Oregon is taking and with the science.

DEQ Response:
DEQ agrees with the comment; however, DEQ finds it unnecessary to include language in the proposed waiver regarding the use of the Camas/Washougal monitor. DEQ removed the reference to the Camas/Washougal monitor from the June 22, 2007, total dissolved gas waiver and issued a Departmental Order on Feb. 25, 2009 removing the requirement to use forebay above-dam monitors during fish passage spill. These documents are available on DEQ's website: http://www.deq.state.or.us/WQ/TMDLs/columbia.htm#tdg

Additional information regarding DEQ's position to no longer use forebay above-dam monitors to manage Columbia River fish passage spill may be found in the "Adaptive Management Team Total Dissolved Gas in the Columbia and Snake Rivers – Evaluation of the 115 Percent Total Dissolved Gas Forebay Requirement" document available on-line at http://www.ecy.wa.gov/pubs/0910002.pdf.

Draft Recommended Total Dissolved Gas Waiver

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 January 09, 2009, to adjust the 110 percent t total dissolved gas water quality 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 during the fish passage season of Apr. 1 to Aug. 31. The application sought approval for five years. The public was notified of the request on Feb. 19, 2009 and given the opportunity to provide written comments until 5:00 p.m. on Mar. 23, 2009.

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:

   Biological assessments and opinions have concluded that providing project spill for fish passage at levels that result in exceeding the 110 percent total dissolved gas water quality standard is necessary to assure adequate passage conditions for Endangered Species Act listed fish species. The National Marine Fisheries Service Federal Columbia River Power System Biological Opinion concluded that the risk associated with a managed fish passage spill program to a 120 percent total dissolved gas level is warranted by the projected 4 percent to 6 percent increase in system survival of juvenile salmonids. The opinion estimated mortality from fish passing through turbines between 7 and 14 percent, and mortality due to fish passage spill between 0 to 2 percent. Barge and truck transport are alternative modes of fish transport to voluntary spill. The mortality associated with truck and barge transport is difficult to estimate due to the potential for latent mortality. However, the US Fish and Wildlife Service studied the transport of fall Chinook salmon directly from Spring Creek Hatchery by barge to a release site below Bonneville Dam. A 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 US Fish and Wildlife Service also

evaluated the possibility of raising and releasing additional fish to make up for those fish that would be lost to turbines or other causes during passage at Bonneville Dam in the absence of spill. The USFWS concluded that 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 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:

The Fish Passage Center estimates a 1.4 percent incidence of gas bubble trauma in salmon smolts in the Columbia River when total dissolved gas levels are managed to 120 percent in the tailrace. This estimate is based on smolt monitoring information collected between 1995 and 2007.

When the in-river total dissolved gas levels are below 120 percent, few adult fish (in some cases none) display signs of gas bubble trauma. Investigators have observed adult tolerance to total dissolved gas and hypothesized that it was attributable to the migration depth of adult salmonids. Depth-sensitive radio tags used in adult migration studies confirmed that adults migrate at depths up to 4 meters and find depth compensation protection from gas bubble trauma. For every meter below the surface water, a reduction of 10 percent total dissolved gas is measured in the water column. Resident fish and aquatic invertebrates in the Columbia River downstream of Bonneville Dam have been 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 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:

Physical in-river total dissolved gas monitoring will be conducted at the tailraces of McNary, John Day, The Dalles, and Bonneville Dams. Hourly data will be available on the Corps' website. The Corps has submitted a physical monitoring plan. The physical monitoring plan of action is available at:
http://www.nwdwc.usace.army.mil/tmt/wq/tdg_monitoring/2010-14_final.pdf
Implementation of the physical monitoring plan will ensure that data will exist to determine compliance with the standards for the voluntary spill program identified in this Order. The Corps will report each year's physical monitoring results to DEQ.

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. Biological monitoring will occur according to the "Fish Passage Center Gas Bubble Trauma Monitoring Program Protocol for Juvenile Salmonids" document, available at: ftp://ftp.fpc.org/gbtprogram/ . Juvenile salmonids will be collected at Bonneville and McNary Dams and examined and evaluated for incidence of gas bubble trauma, and will be assigned ranks based on severity of their symptoms. The corps will report each year's biological monitoring results to the DEQ.

Order

1. The Environmental Quality Commission approves a modification to the 110 percent total dissolved gas water quality standard for voluntary fish passage 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 voluntary spill period from midnight on Apr. 1 to midnight on Aug. 31 for the purpose of fish passage; and

   b) during any period of voluntary spill that occurs outside the periods specified in 1(i)(a) above, if the spill is for the purpose of Spring Creek Hatchery fish release, maintenance activities and/or biological or physical studies of spillway structures and prototype fish passage devices, then the U.S. Army Corps of Engineers must have approval from the Department prior to such spill. The corps must notify the DEQ in writing describing the action, the purpose of the action and dates of action at least one week prior to the voluntary spill for the purpose of informing DEQ and having the DEQ make a final determination of approval. The U.S. Army Corps of Engineers will conduct physical and biological monitoring during these periods of voluntary spill.

   (ii) The modified total dissolved gas criteria will apply for five-years, 2010, 2011, 2012, 2013 and 2014.

   (iii) Spill must be reduced when the average total dissolved gas concentration of the 12 highest hourly measurements per calendar day exceeds 120 percent of saturation in the tailraces of McNary, John Day, The Dalles, and Bonneville Dams monitoring stations.

   (iv) Spill must be reduced when instantaneous total dissolved gas levels exceed 125 percent of saturation for any 2 hours during the 12 highest hourly measurements per

calendar day in the tailraces of McNary, John Day, The Dalles, and Bonneville Dams monitoring stations.

(v) If either 15 percent of the fish examined show signs of gas bubble disease in their non-paired fins, or five percent of the fish examined show signs of gas bubble trauma in their non-paired fins where more than 25 percent of the surface area of the fin is occluded by gas bubbles, the DEQ director will halt the spill program.

(vi) The Corps must provide written notice to DEQ 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.

(vii) No later than Dec. 31 for each year of this waiver, the corps must provide an annual written report to DEQ 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 trauma;
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 gas abatement measures contained in the 2002 Lower Columbia River total dissolved gas total maximum daily load and other gas abatement activities identified through adaptive management.

(viii) If requested, the corps must report to the commission on any of the above matters or other matters relevant to this order.

(ix) The commission reserves the right to terminate or modify this modification at any time.

Adaptive Management

The process for reviewing the implementation of the 2002 Lower Columbia River total dissolved gas total maximum daily load will continue. The Washington State Department of Ecology will convene an advisory group with representatives from Oregon DEQ, tribes, federal and state agencies to evaluate appropriate points of compliance for this total maximum daily load. Based on these findings, further studies may be needed, and structural and operational gas abatement activities will be redirected or accelerated if needed.

Dated: _____ ON BEHALF OF THE COMMISSION

_____
Director

State of Oregon
Department of
Environmental
Quality

June 18-19, 2009 EQC meeting
Agenda Item H

Action Item

U.S. Army Corps of Engineers' request to renew the Columbia River total dissolved gas waiver

Neil Mullane,
Gene Foster,
Agnes Lut

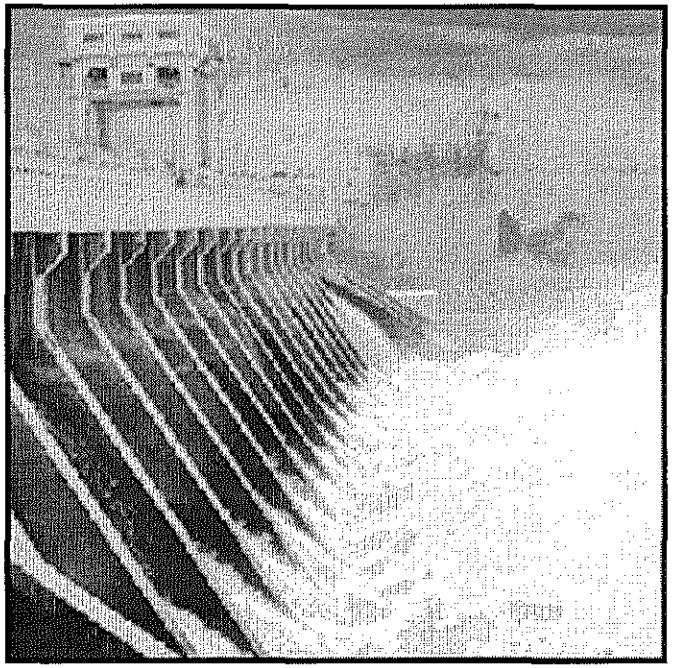
What is total dissolved gas?

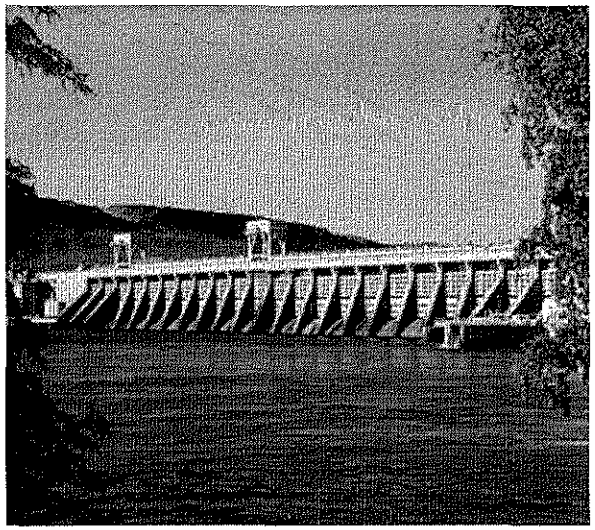
- Water plunging from a dam entrains air (oxygen and nitrogen).

- Water pressure forces the gas into solution (dissolves the gas).

- Spilling water over dams increases the level of total dissolved gas in the river.

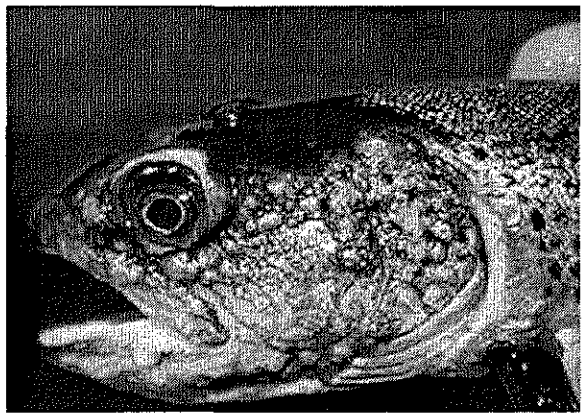
- Total dissolved gas levels above 110 percent of saturation can cause gas bubble trauma in fish.



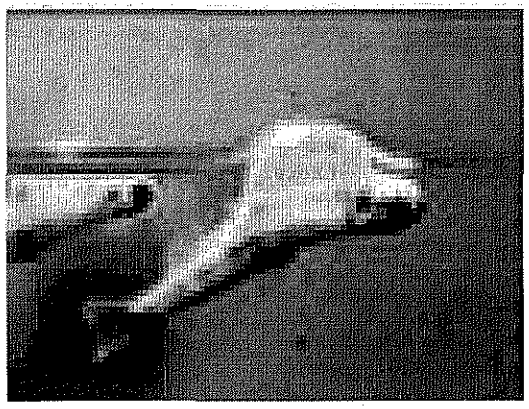


Gas bubble trauma

- Gas bubble trauma is caused by gas bubbles forming in the cardiovascular system of aquatic species.



- Gas bubbles block the flow of blood and respiratory gas exchange.



- Gas bubble trauma is a function of the level of total dissolved gas and length of exposure.

- Fish may compensate for increased total dissolved gas by diving to greater depth

  One meter depth = 10 percent reduction

Oregon's total dissolved gas standard

Oregon Administrative Rules 340, Division 41:

OAR 340-041-0031

- **110 percent** applies everywhere at all times, *except* when stream flow exceeds the 10-year, seven-day average flood flows
- **105 percent** applies in hatchery-receiving waters and other waters of less than two feet in depth

OAR 340-041-0104

Water quality standards and policies specific to the mainstem Columbia River

- (3) Total Dissolved Gas. The **[c]ommission may modify the total dissolved gas criteria in the Columbia River for the purpose of allowing increased spill for salmonid migration**.
    - This is the waiver request and action before the commission.

Why this action item is important

- On January 9, 2009 the federal government submitted a request to renew the existing total dissolved gas waiver to the 110% standard for the purpose of fish passage

- Current waiver expires August 31, 2009.
- New waiver would resume fish passage spill in April 2010.

Joint Federal Government Request

- U.S. Army Corps of Engineers (*lead agency*)
- U.S. Fish and Wildlife
- NOAA National Marine Fisheries Service

EQC issued the first Total Dissolved Gas Waiver in 1994

DEQ's recommendations

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

1. DEQ recommends that a seasonal waiver be issued to the U.S. Army Corps of Engineers instead of the requested year-round waiver.

   DEQ recommends a modified total dissolved gas standard for the Columbia River:

   a) during the fish passage voluntary spill period from midnight on April 1 to midnight on August 31 for the purpose of fish passage; and;

   b) the U.S. Army Corps of Engineers must have approval from DEQ prior to any voluntary spill, for the purpose of Spring Creek Hatchery release, biological or physical studies of spillway structures and prototype fish passage devices to test spill at operational levels, that occurs outside the periods specified in above.

DEQ's recommendations

2. DEQ recommends removing the 115 percent forebay total dissolved gas limit and monitoring due to the findings presented to the total dissolved gas adaptive management team.

   DEQ recommends managing fish passage spill to a 120 percent limit as measured in the tailrace of each dam.

3. Include an adaptive management component as specified in the 2002 total maximum daily load standard to manage long-term implementation.

The recommended waiver includes:

- Five-year duration, 2010 – 2014
- Physical and biological monitoring
- End-of-year reporting

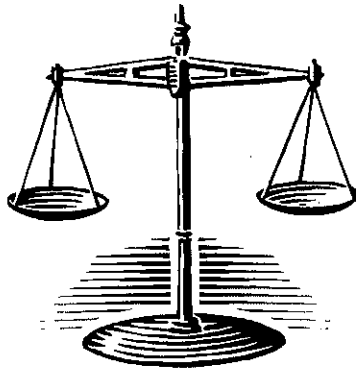
Why this action item is important

The waiver provides a balance between:

Benefit:

increased fish survivorship from fish passage spill (Endangered Species Act)

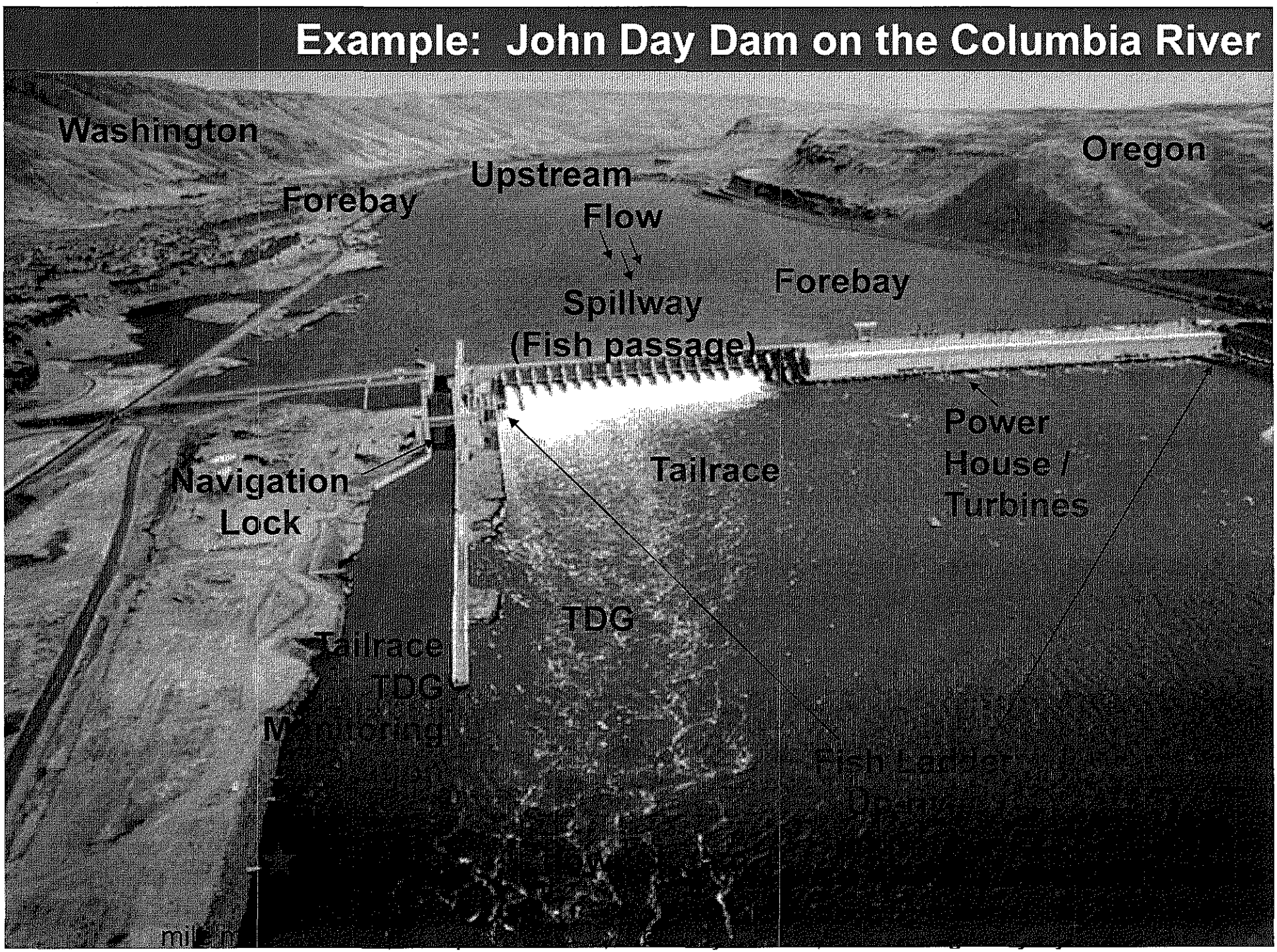
and



Risk:

increased gas bubble trauma from increased total dissolved gas levels due to spill. (Clean Water Act)

Example: John Day Dam on the Columbia River



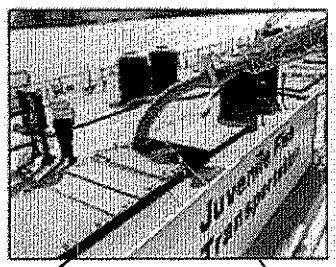
Fish migration

- The NOAA National Marine Fisheries Service identified spill as the safest and most effective tool available for fish passage past the dams.

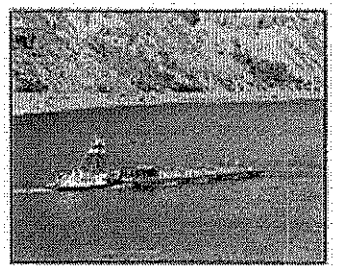
- Spill reduces the time fish spend at the dam

Migration Option	Mortality Rate
Spill Way passage with total dissolved gas limit	Zero to 2%
Turbine passage	7 to 14%
Barge or truck transport	Unknown

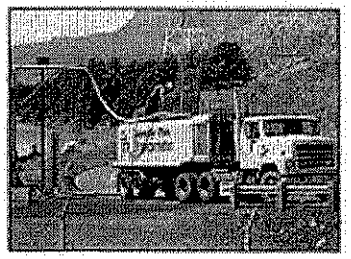
Fish are pumped into the transport vessel



River Barge

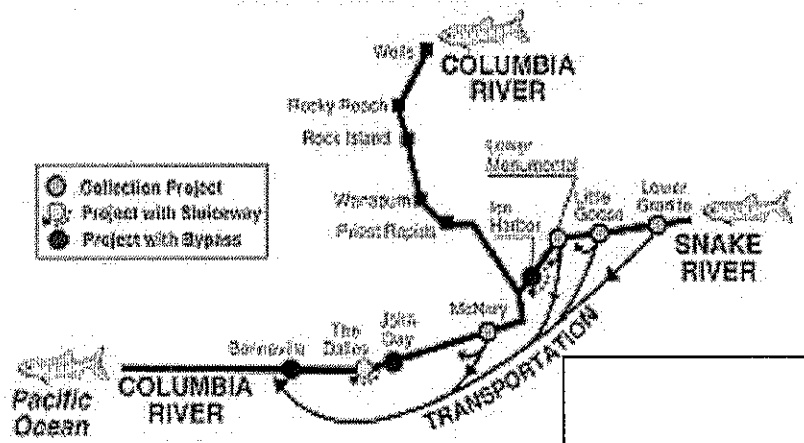


Truck



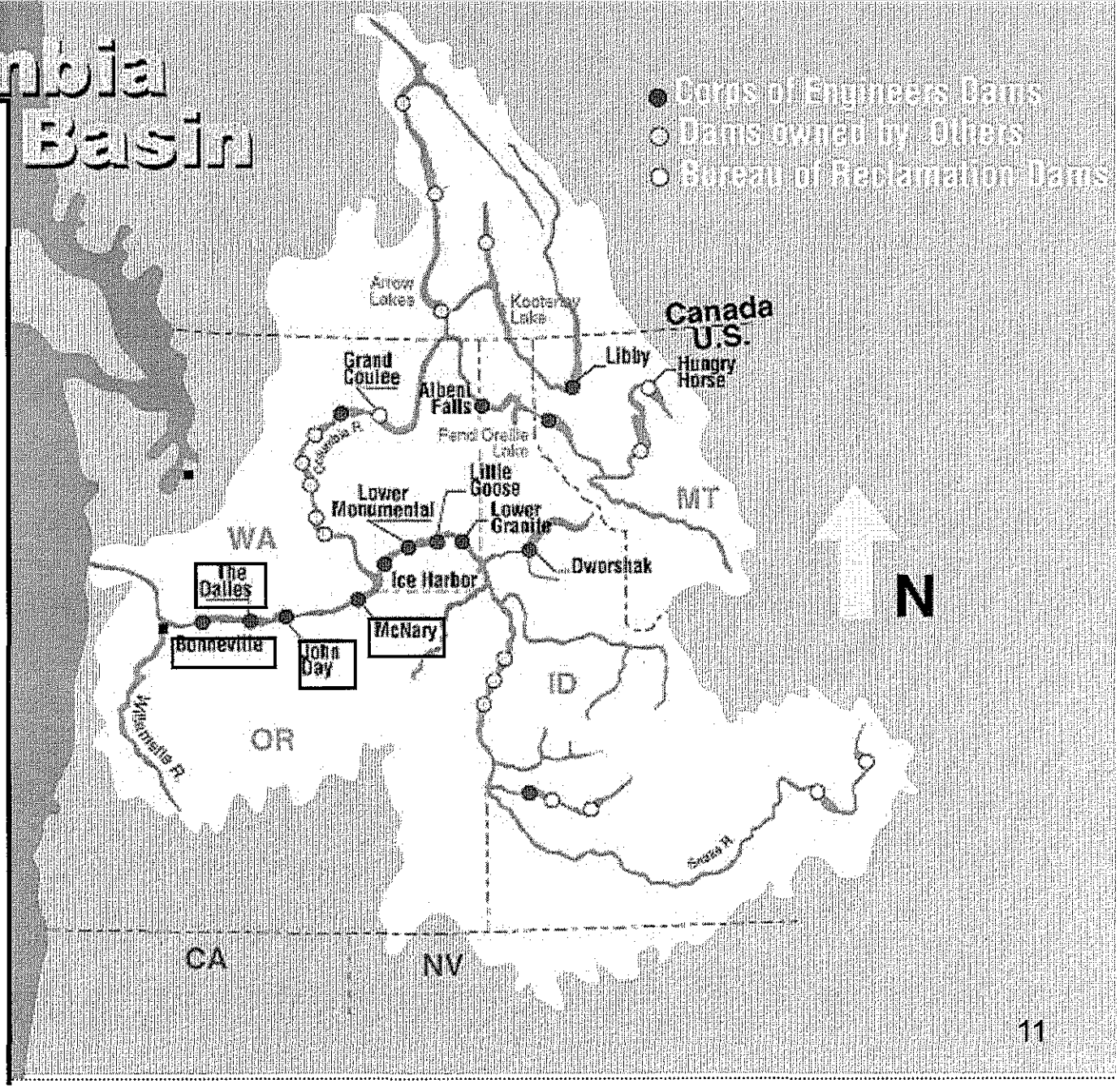
Columbia/Snake River System

Juvenile Fish Passage Routes



Current Total Dissolved Gas Waiver

- Current waiver expires August 31, 2009
- New waiver requested to start in 2010
- Requires biological monitoring for gas bubble trauma
- Requires physical monitoring
- Limits total dissolved gas to the average of the highest 12 hours per day:
  - 120 percent tailrace, below the dam
  - 125 percent for two hours per day



Current Total Dissolved Gas Waiver

- Seasonal waiver for the purpose of fish passage, April 1 to August 31, and 10-days in March for Spring Creek Hatchery;
  - *However,* spill for the purpose of maintenance activities and biological or physical studies of spillway structures and prototype fish passage devices allowed with prior DEQ approval.

- Provide an annual written report to DEQ on the previous year's monitoring results
  - *Including* an update on the 2002 total dissolved gas total maximum daily load implementation activities

- The EQC reserves the right to terminate or modify the waiver at any time

- Adaptive management component for total maximum daily load standard implementation

2002 total dissolved gas TMDL

- Bi-state total maximum daily load by Washington and Oregon, and approved by US EPA

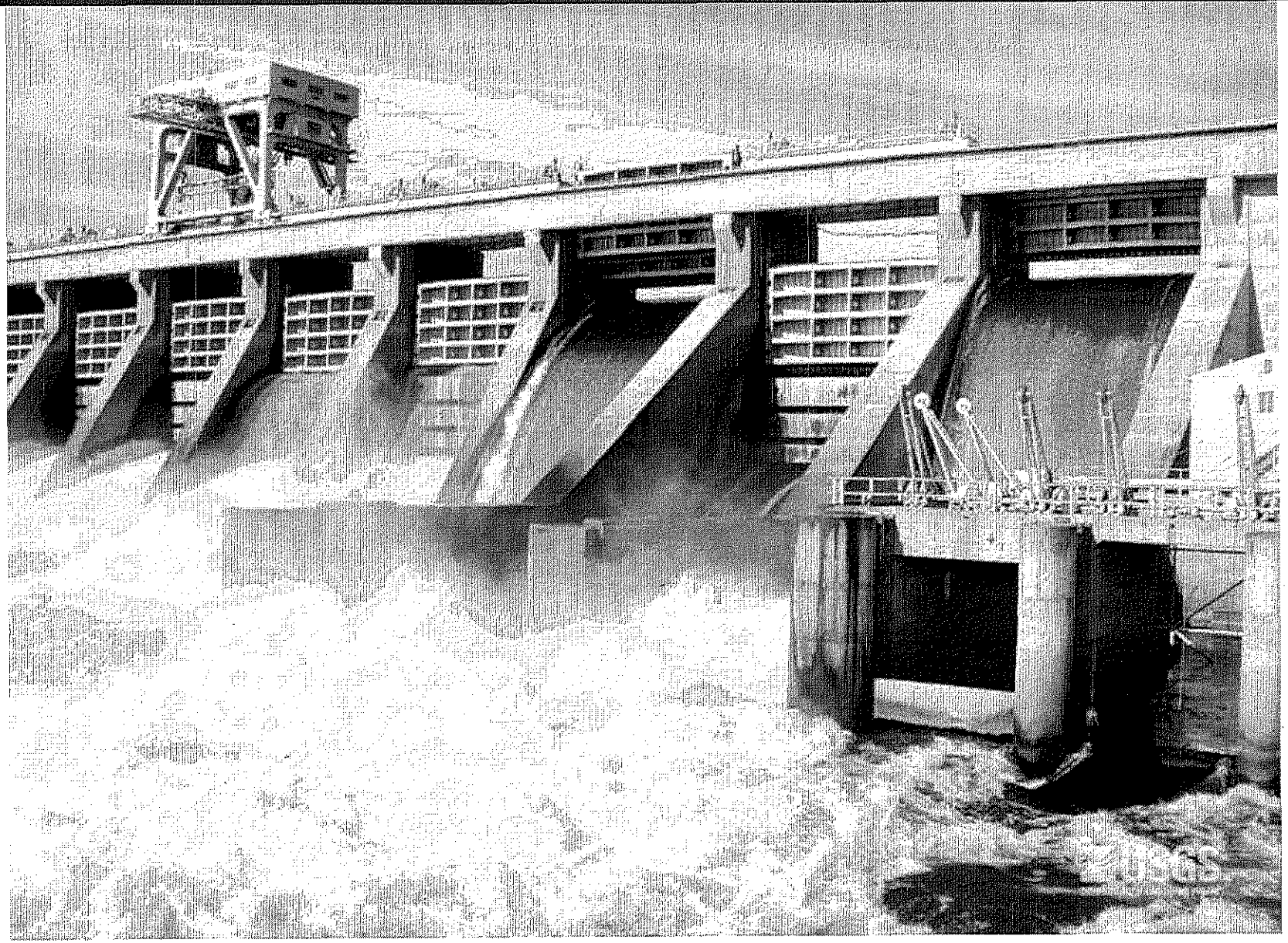
- Waiver is considered an interim solution to ultimately attaining the water quality standard of 110 percent in 2020

- Implementation of the TMDL through adaptive management

- The implementation plan incorporates actions described and analyzed by NOAA National Marine Fisheries and US Army Corps of Engineers

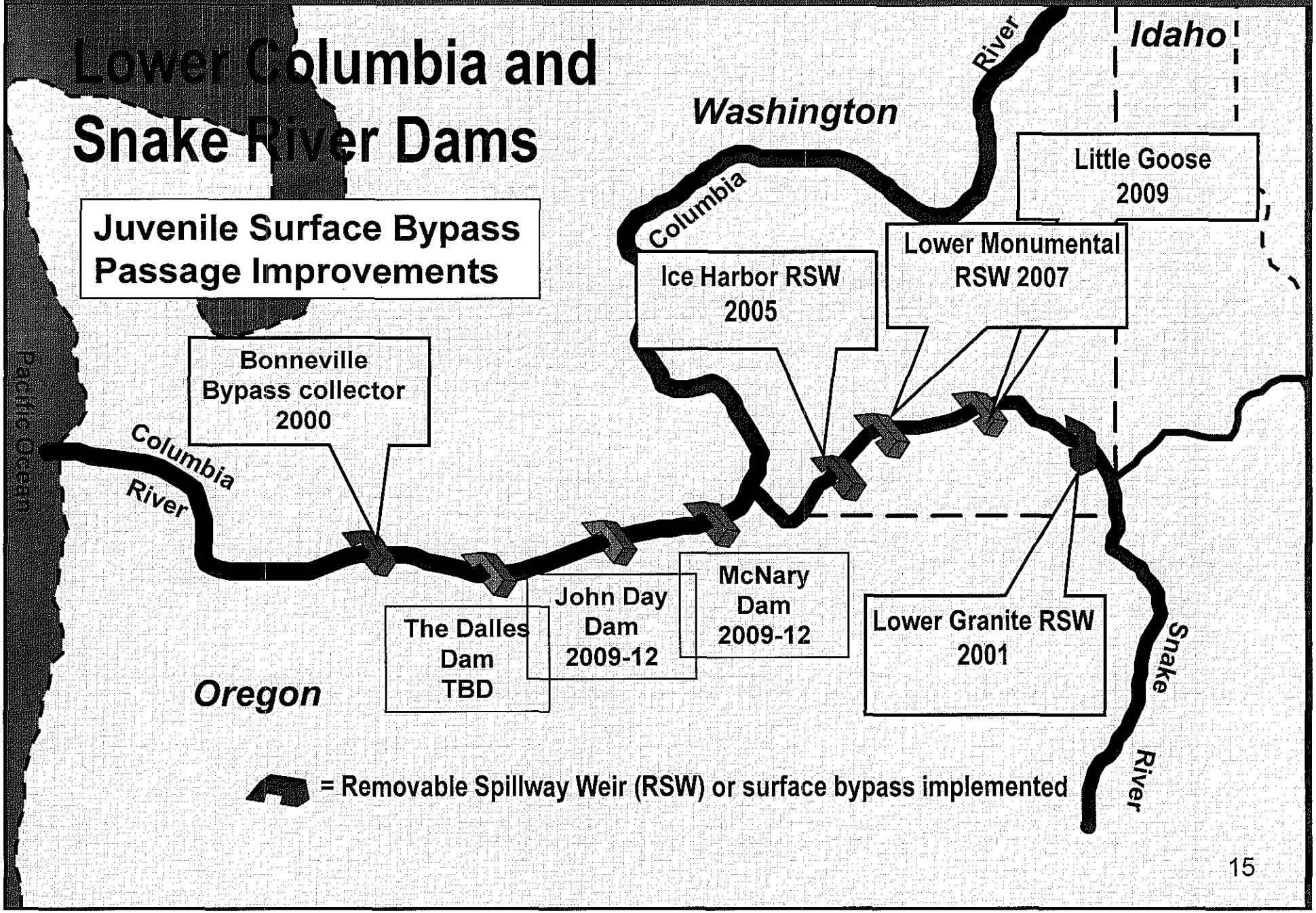
- Short-term implementation relies on operational changes to reduce total dissolved gas and meet fish passage goals

- Long-term implementation begins in 2010, requires spill to be managed with monitors at specified locations below the dams in the tailrace, and relies on structural changes at the dams to meet load allocations



McNary: Temporary Spillway Weir

2002 total dissolved gas TMDL



Request to renew the waiver: US Army Corps conditions

The federal government is proposing the following waiver requirements to provide fish passage spill:

- 120 percent total dissolved gas limit in each project's area below the dam (tailrace)
- 115 percent total dissolved gas limit in each project's area above the dam (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, 2010 – 2014
- Physical and biological monitoring
- End of year reporting

Comments received

- 30 day public notice issued on February 19, 2009

DEQ received four comment letters:

1. Save Our Wild Salmon
2. Columbia Riverkeeper
3. Columbia River Inter-Tribal Fish Commission
4. State, Federal and Tribal Fishery Agencies Joint Technical Staff Memo, signed by:
    - Columbia River Inter-Tribal Fish Commission
    - Idaho Department of Fish and Wildlife
    - Oregon Department of Fish and Wildlife
    - Washington Department of Fish and Wildlife
    - U.S. Fish and Wildlife Service
    - Nez Perce Tribe

Each supported the waiver recommended by DEQ

EQC action alternatives

The EQC has two action alternatives:

1. Approve the request with or without DEQ's recommended modifications.
   - To approve DEQ's recommendation, the EQC must make the four affirmative findings detailed in Attachment C, as specified in OAR 340-041-0104(3);
     (a) Failure to act would result in greater harm,
     (b) Reasonable balance of the risk,
     (c) Adequate data will exist to determine compliance, and
     (d) Biological monitoring will occur to document protection;

2. Decline to approve the proposal.

EQC Discussion

and

Action

Thank you,

Agnes Lut
Columbia River Coordinator

State of Oregon
Department of Environmental Quality Memorandum

Date: May 22, 2009

To: Environmental Quality Commission

From: Dick Pedersen, Director

Subject: Agenda Item J, Action Item: 2008 Oregon Regional Haze Plan and new controls for PGE Boardman coal-fired power plant proposed rulemaking
June 18-19, 2009 EQC Meeting

Why this is Important

Air pollution in the form of haze can travel hundreds of miles, affecting the quality of the viewing experience in scenic areas like Crater Lake National Park. To address this problem, the Environmental Protection Agency adopted the regional haze rule in 1999 to improve and protect visibility in 156 national parks and wilderness areas across the country. This rule requires states to adopt regional haze plans. To address the problem of regional haze in Oregon, DEQ has developed the 2008 Oregon Regional Haze Plan, which includes new controls for the PGE Boardman power plant.

DEQ Recommendation and EQC Motion

The Department of Environmental Quality recommends that the Environmental Quality Commission adopt the following proposed plans and rules as revisions to the Oregon State Implementation Plan:

- Proposed new regional haze rules, Division 223, as presented in Attachment A-1;
- Oregon Smoke Management Plan, Division 629, as presented in Attachment A-2; and
- The "Oregon Regional Haze Plan for Implementing Section 308 of the Regional Haze Rule," as presented in Attachment A-3.

DEQ also recommends that the EQC adopt the following related rule amendments:

- Proposed changes to the compliance extension contingency provision in the mercury rules, Division 228, as presented in Attachment A-4.

After extensive review and consideration of over 1200 public comments, DEQ is recommending adoption of its initial Dec. 2008 rule proposal that includes new emission control requirements for the PGE Boardman power plant with one change, which would allow PGE to formally request a rule change to avoid installing SO_2 or Selective Catalytic Reduction controls, if and when PGE decides to permanently close the Boardman coal-fired power plant.[1]

[1] This proposed change can be found on pages 155 and 202 of the proposed Oregon Regional Haze Plan

Background and Need for Rulemaking

Congress designated certain national parks and wilderness areas as Class I areas, where visibility was identified as an important value. Currently there are 156 Class 1 areas in the country. Oregon has 12 Class I areas, including Crater Lake National Park and 11 wilderness areas. Under the federal regional haze rule, states must develop plans that will improve Class 1 area visibility on the haziest days, the worst 20 percent, and ensure no degradation on the clearest days, the best 20 percent, over the next 60 years. This long time frame recognizes the many challenges faced in reducing haze across the country. This includes the need for very complex technical analysis covering thousands of different emissions sources, and the need for multi-jurisdictional coordination among states, federal land managers such as the US Forest Service and National Park Service, EPA, Native American tribes, and many other stakeholders. The goal of the regional haze rule is to return visibility in Class I areas to natural background levels by the year 2064.

The purpose of this rulemaking is to adopt the first in a series of regional haze plans for Oregon's 12 Class I areas. The largest and most significant part of the regional haze rule is the requirement to evaluate best available retrofit technology, known as BART, for older industrial sources built before 1977, when federal rules were adopted to protect visibility in Class I areas from new industrial sources. Some of these older sources are still uncontrolled and have significant visibility impacts in Class I areas. In addition to the BART requirement, the regional haze rule requires states to show how reasonable progress is being made to reduce haze by a benchmark called the 2018 Milestone. Regional haze plans must include a long-term strategy to identify actions the state will take to reduce haze over the next ten years.

Thirteen western states coordinated regional haze planning efforts through an organization called the Western Regional Air Partnership[2], and through individual consultation with neighboring states. DEQ consulted with Washington, California, Nevada, and Idaho air agencies, as well as the US Forest Service and the National Park Service. At five year intervals states will develop updates to their regional haze plans, showing the latest visibility analysis, the current status for meeting reasonable progress milestones and proposed emission reduction strategies for making incremental progress in haze reduction.

Overview of the Oregon Regional Haze Plan and Requirements for PGE Boardman

The 2008 Oregon Regional Haze plan consists of the following:

1) Comprehensive review of visibility conditions in each of Oregon's 12 Class I areas, showing major pollutants and sources causing haze, and a projection of statewide emissions and visibility conditions in 2018;

[2] http://www.wrapair.org/about/0309wrapmap.pdf

2) Summary of DEQ's BART evaluation of the PGE Boardman coal-fired power plant and other sources potentially subject to BART, including new rules for emission controls for PGE Boardman;
3) Reasonable progress demonstration for the best and worst visibility days, related to the 2018 Milestone benchmark;
4) Long-term strategy that describes sources that will be evaluated in the next 10 years to make visibility improvements; and
5) Summary of the consultation and coordination process with neighboring states, Tribes, and federal land managers.

Additional information on parts two, three and four are described below. Discussions of parts one and five above can be found in Chapters 6-9 and 13 of the proposed Oregon Regional Haze Plan. See also Attachment A-5: Executive Summary from the Oregon Regional Haze Plan.

The most significant action associated with the 2008 Oregon Regional Haze Plan is DEQ's proposed rule requiring emission controls at the Boardman coal-fired power plant. This proposed action would provide the largest environmental benefit of any strategy in the plan, and have the largest fiscal impact.

Summary of DEQ's BART Evaluation

Under BART, states must evaluate pre-1977 major industrial sources to determine which have significant visibility impacts, and would therefore need to reduce emissions through changes in plant operations or by retrofitting with new pollution controls. DEQ evaluated over 100 sources and found ten to be BART-eligible by meeting certain criteria in the federal rule. One of these ten sources was the PGE Boardman coal-fired power plant. DEQ's visibility modeling analysis showed that the PGE Boardman plant caused considerably greater visibility degradation than any other BART-eligible source. Four other sources, listed on page 6, had visibility impacts just over the significant impact level, while the remaining five did not. The Boardman plant was evaluated for BART controls, while the other four sources chose to reduce their emissions by making changes to their operations and taking enforceable permit limits. The proposed rules accompanying the Oregon Regional Haze Plan apply to PGE Boardman and the four other sources taking permit limits.

DEQ's air quality assessment of PGE Boardman coal-fired power plant

The PGE Boardman plant is a 600 megawatt coal-fired electric generating plant. Originally permitted in 1977, PGE Boardman is Oregon's only coal-fired power plant, and represents approximately 20 percent of PGE's total energy generating capacity. The facility currently emits about 25,000 tons of air pollution per year.

DEQ's visibility modeling analysis shows that sulfur dioxide and nitrogen oxide emissions from this facility can travel more than 200 miles, significantly degrading visibility in 14 Class I areas in Oregon, Washington, and Idaho. The modeling analysis also shows these emissions significantly degrade visibility in the Columbia River Gorge National Scenic Area and contribute to acid deposition, which can threaten important Native American cultural resources such as ancient rock images. DEQ's modeling analysis shows that the highest visibility degradation occurs at the Mt. Hood Class I Area and in the Columbia River Gorge. DEQ's modeling analysis can be found at http://www.deq.state.or.us/aq/haze/docs/modelingAnalysis.pdf
Based on this analysis, DEQ developed its emission control proposal for the PGE Boardman facility with three environmental priorities in mind:

1) Meet federal requirements for BART;
2) Minimize Boardman's NOx and SO_2 emissions to help Oregon demonstrate that reasonable progress is being made toward the 2018 Milestone; and
3) Minimize Boardman's NOx and SO_2 emissions to improve visibility and better protect Native American cultural resources in the Columbia River Gorge.

While the first priority meets the federal requirements for BART, the other two priorities go beyond BART to provide extra environmental protection. As described below, this is expected to provide significant visibility improvements and a general benefit to public health.

DEQ's emission control proposal for PGE Boardman

Based on DEQ's assessment of visibility impacts from the PGE Boardman facility, a two-phased approach for installing controls was developed that would reduce total emissions by 81 percent, or about 21,000 tons per year, and reduce peak visibility impacts in the 14 Class I areas by an average of 83 percent. Phase one controls would cut sulfur dioxide, nitrogen oxides, and particulate matter emissions by about 17,000 tons per year, while the phase two controls would provide additional reduction of 4,000 tons per year of NOx. The total cost of these controls would be approximately $471 million. The following summarizes DEQ's proposed controls:

- **Phase one NOx controls:** New low-NOx burners with modified overfire air control system, at a cost of $32.6 million, which would cut NOx emissions by 4,800 tons per year, for a 46 percent reduction. These controls must be installed by July 2011.[3]

[3] The proposed rules would allow DEQ to grant an extension to July 2014, if it is demonstrated that the proposed emission limit cannot be achieved with these combustion controls. If an extension is granted, PGE Boardman would need additional time to install other controls (which can meet this limit), which accounts for the 2014 installation date. However, even if an extension is granted, the low NOx Burners and modified overfire air system would still be installed by July 2011.

- **SO_2 controls:** Semi-dry flue gas desulfurization, at a cost of $247 million, which would cut SO_2 emissions by 12,000 tons per year for an 80 percent reduction. These controls must be installed by July 2014. These controls are compatible with the mercury controls required by 2012. See the mercury rule amendments described on page 7.
- **Particulate matter controls**: Pulse jet fabric filter. These controls are a side benefit and part of installing the SO_2 controls and would supplement the existing electrostatic precipitator. This installation would cut particulate matter emissions by 122 tons per year for a 29 percent reduction. These controls must be installed by July 2014.

The combination of the above controls meets BART requirements.

In addition, DEQ recommends phase two NOx controls.

Phase two NOx control is selective catalytic reduction, at a cost of $191 million, which would cut NOx emissions by an additional 4,000 tons per year for an additional 38 percent reduction. These controls must be installed by July 2017.

The phase two NOx controls go beyond BART and were recommended for several reasons. The controls would reduce the magnitude of PGE Boardman's visibility impacts in 14 Class I areas, as described above, and would increase the total NOx reduction from 46 to 84 percent, which is a significant reduction and consistent with the 80 percent reduction from the proposed SO_2 controls. There is also a need for demonstrating reasonable progress and greater visibility improvement by the 2018 regional haze milestone. Additionally, these controls would reduce acid deposition and improve visibility in the Columbia River Gorge, and provide general benefits to air quality and public health.

BART-eligible sources taking federally enforceable permit limits

As mentioned above, there were four BART-eligible sources that had much smaller visibility impacts than PGE Boardman, yet were still over the significant impact level. EPA guidance allows BART-eligible sources to take a federally enforceable permit limit if they permanently lower their emissions so that the ambient concentration stays below this significant impact level. The federal regional haze rule requires enforceable limits to be in place before submitting the state regional haze plan to EPA. Sources that take these enforceable limits are not subject to further evaluation for BART controls; however, as with other emission sources, they will be re-evaluated in the future for reasonable progress purposes, as part of the long-term strategy. The air quality permits for these four sources have been modified to meet these emission limits.

- **PGE Beaver power plant** is a 558 megawatt electric generating plant located in Clatskanie, Oregon. This plant is reducing its emissions by using a cleaner

ultra-low sulfur diesel fuel blend as a backup fuel in its steam gas turbines, and by limiting the amount of ultra-low sulfur diesel fuel it can burn in any given day.

- **International Paper (formerly Weyerhaeuser)** is a containerboard plant located in Springfield, Oregon. The plant will soon begin work on repairs that will reduce its emissions, and show compliance through operational limits and monitoring. In the interim, limits on both operation and oil use will apply, especially during periods of inspection and maintenance of damaged equipment when emissions can vary.
- **Amalgamated Sugar** is a sugar beet processing plant located in Nyssa, Oregon, near the Idaho border, which is currently closed. Since its air quality permit is still active, this facility will have an emission limit added to its current permit, which becomes effective if the facility resumes operation in the future.
- **Georgia Pacific, Wauna Mill** is a pulp and paper manufacturing plant located near Clatskanie, Oregon. The mill is reducing its emissions by taking a permit limit based on permanently reducing oil usage, reconfiguring an emission control system to eliminate an incinerator later this year and applying production limits before and after the incinerator is eliminated.

The reasonable progress demonstration for regional haze

The first regional haze plan must show reasonable progress in meeting the 2018 Milestone as a benchmark towards achieving natural conditions by 2064. DEQ relied on regional modeling conducted by the Western Regional Air Partnership to estimate visibility conditions in 2018 for each Class I area in Oregon, based on estimated emission reductions from BART sources, emission reductions from known "on-the-books" regulations, emissions and population growth projections for Oregon and the region, future estimates of fire emissions and other factors. In terms of meeting the 2018 Milestone, most Oregon Class I areas show a slower rate of progress for the 20 percent worst days, but meet the objective for no degradation for the 20 percent best days. The primary contributor to the slower rate of progress for the worst days was natural fire or wildfires and windblown dust. Another large contributor to the worst days in western Oregon Class I areas was commercial offshore shipping, for which few regulations have yet been developed. DEQ suspects forestry and other outdoor burning sources may also be contributing to the worse days, and will evaluate these sources under the long-term strategy, as described below. The phase two selective catalytic reduction controls for PGE Boardman will result in greater visibility improvement and reasonable progress by the 2018 Milestone.

The long-term strategy for future visibility improvements

An important part of the Oregon Regional Haze Plan is the long-term strategy, which identifies ongoing efforts and new measures to improve visibility over the next 10 years. Examples of ongoing efforts include major new source review rules for new and expanding major industrial sources, DEQ's low emission vehicle standards for cars and trucks, federal emission standards for non-road engines and residential wood heating rules. In terms of new measures, the long-term strategy contains work commitments for DEQ to evaluate other industrial sources not covered by the BART rules, forestry prescribed burning, residential and rangeland burning, offshore commercial shipping and ammonia sources in order to determine potential visibility improvements by 2018. DEQ will work closely with EPA, federal land managers, appropriate stakeholders and tribal nations in conducting these evaluations, and preparing a report for the 2013 regional haze plan update.

Other actions proposed with this rulemaking

1. Amendments to the mercury rule compliance extension contingency for PGE Boardman

There are two changes related to this proposed rulemaking modifying existing rules that require PGE to reduce mercury emissions at the Boardman plan. These 2006 rules allowed DEQ to grant a one-year extension to the July 2012 compliance date if there are circumstances preventing compliance by that date. DEQ is proposing to change this extension contingency measure to two years, to reflect the timeframe for installing SO_2 controls for BART in 2014. Since the SO_2 and mercury controls share some of the same control equipment, it is advantageous for them to be installed at the same time. PGE Boardman may use an existing electrostatic precipitator to control mercury emissions until the SO_2 controls are installed. However, it is possible this could result in contamination of the fly ash, which is a valuable byproduct sold for making concrete. As a result, DEQ is also proposing to add fly ash contamination as a reason for granting a two-year extension to 2014.

2. Incorporates changes made to the Oregon Smoke Management Plan into the State Implementation Plan

This proposed rulemaking also incorporates changes made to the Oregon Smoke Management Plan into the State Implementation Plan. The Oregon Department of Forestry, in consultation with DEQ, revised the Oregon Smoke Management Plan in November 2007 and included new visibility protection provisions. These are referenced in the Oregon Regional Haze Plan, and include voluntary measures to protect Oregon Class I areas when burning inside or upwind of a Class I area. No changes to the updated Oregon Smoke Management Plan were made as part of this regional haze rulemaking, but any change to Oregon Smoke Management Plan requires a State Implementation Plan revision.

Effects of Rule

As described above, if this proposed rulemaking is adopted, it would have the following effects:

1. Require new controls for the PGE Boardman plant. Reduces PGE Boardman's peak visibility impacts by 83 percent among other improvements. DEQ would revise the plant's air permit after adoption of this proposed rulemaking.

2. Include enforceable permit limits for four BART-eligible sources. Reduces the emissions from these sources permanently, to below a level that would cause a significant visibility impact. These sources have already had their air permit revised in order to take this option, except for Amalgamated Sugar, which is currently shutdown.

3. Adopt the Oregon Regional Haze Plan as part of the State Implementation Plan. DEQ would submit this plan and all the associated rulemaking to EPA for approval as a State Implementation Plan revision. This plan serves as a legal commitment, similar to other rules and plans submitted to EPA, on how Oregon is going to meet this federal rule.

4. Amend the mercury rules to align the installation of mercury controls to SO_2 controls for PGE Boardman. This rule change would not be submitted to EPA, as it is not a State Implementation Plan revision and would take effect immediately. However, as described above, this is only a change to a contingency measure that is triggered if PGE requests an extension to the proposed 2012 compliance date.

5. Incorporate the Oregon Smoke Management Plan into the State Implementation Plan. This plan is an appendix in the Oregon Regional Haze Plan, and would be submitted to EPA for approval as a State Implementation Plan revision with the rest of this proposed rulemaking.

Fiscal Impact:

- Installing new pollution control technology on the facility will represent a major capital investment and cost to the owners of the Boardman power plant. Total capital costs for the full suite of NOx and SO_2 controls are estimated at approximately $471 million by 2018. It is possible that these costs would be passed on to customers served by the Boardman plant through increased electric rates which DEQ estimates will average about three to four percent by 2018. This potential rate increase will be contingent on future actions taken by the Oregon Public Utility Commission. Pending Public Utility Commission approval, these rate increases would likely phase in over time, beginning with rate increases averaging 0.2 to 0.3 percent between 2011 and 2014, two to three percent between 2014 and 2017, with a maximum of three to four percent by 2018.

- DEQ anticipates no significant fiscal impact to the four other BART-eligible industrial sources that have accepted federally enforceable permit limits or their customers from the proposed new emission limits, because these limits do not require any significant capital investment in these facilities. These sources did not identify any significant fiscal impacts during the comment period or at the time their air permits were modified.

- No other fiscal or economic impacts are expected from the rest of the proposed regional haze plan.

- DEQ's fiscal advisory committee agreed that there will be a general positive economic impact to public health and the environment resulting from the reduction of 21,000 tons per year of air pollution from PGE Boardman. Even though these benefits cannot be quantified, the committee agreed they should be acknowledged in principle.

For a more detailed summary of the fiscal and economic effects of this proposal see Attachment E: Statement of Need and Fiscal and Economic Impact.

Commission Authority

The commission has authority to take this action under ORS 468.020, 468A.025, 468A.035, 468A.310 and 477.013.

Stakeholder Involvement

A regional haze/BART workshop was held in Portland in 2007, and was attended by industry, environmental representatives and the public. During 2007 and 2008 DEQ met with environmental and industry groups to discuss various aspects of the BART requirements. DEQ also met with EPA and federal land managers during the preparation of the Oregon Regional Haze Plan, and participated in numerous Western Regional Air Partnership meetings with neighboring states preparing similar regional haze plans. DEQ met with several tribes in addition to the tribal nations in the Western Regional Air Partnership. During this time, DEQ also worked with Oregon Department of Forestry to adopt, through a public process, regional haze-related provisions into the Oregon Smoke Management Plan.

In October 2008, DEQ convened a fiscal advisory committee to review the economic impacts associated with this proposed rulemaking, with emphasis on the costs related to the proposed controls for PGE Boardman. The committee had a wide range of membership; from utility, power and energy organizations, to small business groups, environmental, health, and tribal interests. The committee met in October 2008, as described above, and again in January 2009 after DEQ received comments from PGE proposing alternatives to DEQ's proposal for BART and reasonable progress.

Public Comment

The public comment period began December 1, 2008, and ended January 30, 2009. This 60-day comment period was twice the length of most DEQ rulemakings. In response to PGE's proposal described below, which DEQ

received as a public comment, DEQ extended the public comment period by two weeks.

There were five public hearings held in Portland, Eugene-Springfield, Medford, Hermiston and The Dalles. A total of 111 persons attended the hearings, and 45 provided testimony. DEQ received over 1200 comments, mostly via email, with 61 written comments received. As a result of the extensive public comments and additional time needed for review and evaluation of these comments, this proposed rulemaking was rescheduled from the April 2009 EQC meeting to the June 2009 EQC meeting.

Summary of the public comments

The summary of comments and DEQ's responses can be found in Attachment B: Summary of Public Comments and Agency Responses, and Attachment C: Hearing Officer's Report on Public Hearings.

PGE's proposed decision points:

On December 17, 2008, PGE submitted comments on this rulemaking requesting DEQ consider adding two decision points or closure options to the proposed rules, which would allow PGE the option of decommissioning the Boardman plant rather than investing in additional air pollution controls. The first decision point in 2012 would allow PGE to decide to close the plant and operate it without additional controls until 2020, and the second in 2015 would allow PGE to decide to close the plant and operate it without additional controls until 2029. PGE cited the need for these two closure options as being primarily related to the impact and costs of upcoming carbon regulations to address global warming. PGE noted that these closure options would: (1) provide needed flexibility in making critical planning decisions about the future of the plant; (2) allow sound economic decisions to be made for PGE's customers; and (3) satisfy DEQ's regulatory needs as alternate ways of meeting the BART and reasonable progress requirements.

Summary of key comments and DEQ responses

The following represents some of the key comments DEQ received on this rulemaking. DEQ's detailed response to these comments can be found in Attachment B: Summary of Public Comments and DEQ Responses. Several of the topics raised in the comments below are also discussed in the key issues section on page 12 of this report.

- **PGE's decision point proposal.** Most of the comments in favor of PGE's decision point closure options cited the importance of giving PGE the flexibility to make sound economic decisions in the future when carbon regulations are known. PGE and others also commented that these decision

points would still allow DEQ to meet BART and reasonable progress requirements. *See DEQ responses #19-21, 23-25 in Attachment B.*

- **Overall stringency and installation timeline of DEQ's proposed controls for PGE Boardman**. Those in favor of more stringency stated that the proposed NOx and SO_2 emission limits did not reflect the lowest levels achievable using this control technology. There were also many comments advocating faster installation of controls than proposed, such as requiring SO_2 controls in 2013 instead of 2014. *See DEQ responses #1-9,11,12,16.*

- **Selective catalytic reduction requirements.** There were many comments in favor of requiring selective catalytic reduction controls as BART. In contrast, many opposed selective catalytic reduction controls as being too stringent and expensive. *See DEQ responses #6,11.*

- **Overall cost of the proposed controls for PGE Boardman is too expensive.** Many comments cited selective catalytic reduction controls as being too expensive, and that the overall estimated cost of $471 million would have major impacts on the economy, energy supply, and electricity rates, which could ultimately force the plant to shutdown. *See DEQ responses #11,13,15,18,52.*

- **Proposed compliance date extension contingency measures for phase one NOx and mercury**. There was some opposition to allowing DEQ to grant compliance date extensions for installing phase one NOx controls and mercury controls via contingency measures. *See DEQ responses #3, 14,48.*

- **Adequacy of DEQ's BART evaluation for other industrial sources.** There were a number of comments on the BART evaluation of other industrial sources besides PGE Boardman, mostly related to modeling and selection of sources to be evaluated for BART controls. *See DEQ responses #35-37.*

- **Adequacy of the reasonable progress demonstration.** Several comments noted that since most Oregon Class I areas showed a slower rate of progress than the 2018 Milestone more controls should be required. *See DEQ response #38.*

- **Comments on DEQ's proposed evaluation of fire sources under the long-term strategy**. There were several comments and questions on the proposed evaluation of forestry prescribed burning, and how DEQ would address fire sources in general. *See DEQ response #41.*

- **Failure of the plan to address other issues besides Class I visibility**. There were many comments from the general public that this rulemaking was too limited in scope, and should be addressing visibility in the Columbia River Gorge, general air quality impacts, public health and global warming. *See DEQ responses #46-50, 54.*

Key Issues

Has DEQ identified the appropriate controls for PGE Boardman?

As described in this report, DEQ's visibility modeling for PGE Boardman showed this plant to be one of the most significant single sources of haze pollution in Oregon, impacting 14 Class I areas in Oregon and Washington, within a 200 mile radius of the plant, and accounting for half of the Class I visibility impacts from the five BART sources that were modeled. Its highest impact at the Mt. Hood Class I Area is approximately nine times the significant impact level, and about seven times this level at the Columbia River Gorge. In addition, the NOx and SO_2 emissions from PGE Boardman contribute to acid deposition in these 14 Class I areas and the Columbia River Gorge.

As noted above, during the public comment period there were many comments on the stringency and overall estimated cost of $471 million for the proposed controls for PGE Boardman. Some argued the costs were too high, while others argue for greater stringency and faster implementation of these controls.

DEQ conducted an exhaustive three-year evaluation of the appropriate controls for this facility, researching numerous control technologies and recent retrofits across the country for similar power plants.DEQ also hired an independent consultant, Eastern Research Group, with extensive expertise in coal plant control technology, to assist in the control evaluation. DEQ staff reviewed over 30 different types and combinations of control technologies, evaluating the cost and control efficiencies of each, and the engineering requirements for retrofitting the Boardman plant and worked closely with PGE plant engineers during this evaluation. DEQ made additional assessments on the shortest time feasible for installation, and set emission limits that were the highest achievable, yet reflect the use of proper averaging times, and account for normal fluctuations in emissions that would ensure compliance with permit limits. The end result was a suite of emission controls for PGE Boardman that is both stringent and cost-effective, and complies with the regulatory requirements for BART and reasonable progress.

In addition to general comments on the stringency and cost, there were specific comments on the proposed phase two selective catalytic reduction controls. Some argued that selective catalytic reduction controls should be included as part of the BART controls and required by 2014, while others strongly opposed these controls as being too stringent and expensive, not providing enough visibility improvement to be justified or that DEQ was unfairly singling out PGE Boardman for additional controls.

The magnitude of PGE Boardman's visibility impacts in 14 Class I areas was a key factor in DEQ recommending selective catalytic reduction controls. Without the selective catalytic reduction controls, the NOx reduction is only 46 percent, and the combined total emission reduction only 66 percent. With selective catalytic reduction controls, the total NOx reduction increases to 84 percent, and the combined total emission reduction to 81 percent. The overall cost-effectiveness of selective catalytic reduction, combined with phase one NOx controls, is nearly the same as the SO_2 controls on a cost per ton basis. Additionally, there is more visibility improvement from reducing NOx than SO_2 due to the fact that NOx contributes slightly more to haze formation than SO_2.

DEQ did not recommend selective catalytic reduction controls as BART due to cost and implementation concerns. Although selective catalytic reduction is considered cost effective, the cost is about six times more than the phase one NOx controls, yet only provide about twice as much visibility improvement. DEQ also determined that installation of selective catalytic reduction would take longer than the five years allowed under the BART rules, due to the time needed for engineering, procurement, and construction and additional time needed for extensive modifications to the boiler to accommodate this retrofit.

Overall, DEQ believes the phase one NOx controls combined with the SO_2 controls to be the best approach to meet BART, and adding the phase two selective catalytic reduction controls are both necessary and justified. Over the next eight years the combination of these controls will reduce the plant's emissions by approximately 21,000 tons per year, reduce peak visibility impacts at the 14 Class I areas by an average of 83 percent, improve visibility by the 2018 Milestone, reduce visibility degradation in the Columbia River Gorge and provide general air quality and public health benefits. These controls will also help reduce the risk to important Native American cultural resources in the Gorge. The proposed controls are cost-effective and are realistically achievable for PGE.

Should the proposed controls for Boardman include the closure option decision points proposed by PGE?

DEQ does not support PGE's closure options proposal. The preferred approach would be for PGE to request an alternate compliance path at a future time when the full extent of carbon regulations is known, when costs and tradeoffs have been evaluated and when a decision has been made on the future of the Boardman plant.

EPA and federal land managers also questioned if PGE's proposal legally satisfies the BART and reasonable progress requirements. Their comments cited the lack of an evaluation of other BART controls that might be cost-

effective, and the visibility improvements such controls might provide, prior to the proposed closure dates. The federal BART rules require that all control technologies be evaluated with specific emphasis on the expected visibility improvements and requires full public review and comment of any BART determination. PGE also concluded no controls were needed for the 2015 decision point, prior to the 2029 closure date. DEQ agrees these factors were not fully addressed in PGE's proposal for the 2012 decision point and that the proposal does not address the required 2018 Milestone and necessary visibility improvements.

Proposed change: In response to PGE's proposal, DEQ has added provisions to the proposed Oregon Regional Haze Plan that would allow PGE to formally request a rule change to avoid installing SO_2 or selective catalytic reduction controls, if and when PGE decides to permanently close the Boardman coal-fired power plant.[4] PGE would have to make this request well in advance of the required installation dates for these controls, allowing sufficient time for a full public process. In considering a request, DEQ would initiate a public rulemaking process involving participation by a fiscal advisory committee, stakeholder interests, tribal nations and the public. An opportune time for PGE to consider this option would be as part of DEQ's 2013 regional haze plan update; although PGE could request a rule change at any time the decision has been made to close the Boardman facility. See Attachment A-6 for the proposed language.

Should DEQ allow extensions to compliance dates for phase one NOx and mercury controls?

There were many comments on the proposed compliance date extension contingency measures for phase one NOx and mercury controls. DEQ recommends retaining these measures as proposed.

DEQ has proposed a stringent phase one NOx emission limit for the boiler at Boardman. PGE must combustion controls to meet these limits by July 2011 and no extension would be granted for the installation of combustion controls. However, due to the unique design of the Boardman boiler, it is possible these combustion controls may not achieve the proposed limit. If PGE fails to meet the required limit, there is a contingency measure in the proposed rules that will require PGE to install more costly pollution controls, known as a selective non-catalytic reduction system. If selective non-catalytic reduction system is necessary, DEQ will extend the phase one NOx compliance date to 2014 to allow for the engineering, fabrication and installation of these controls. The selective non-catalytic reduction system would be temporary, and would be either replaced or used in conjunction with the selective catalytic reduction controls required in phase two.

[4] This proposed change can be found on pages 155 and 202 of the proposed Oregon Regional Haze Plan

The proposed revision to the mercury rules would extend the existing compliance extension contingency measure from one to two years. This proposal is not changing the default 2012 compliance date for installing mercury controls and existing rules allow DEQ to grant a one year extension if there are circumstances preventing compliance by that date. DEQ recommends changing this contingency measure to two years to align with the installation of SO_2 controls in 2014. SO_2 and mercury controls share some of the same control equipment and it is advantageous for them to be installed at the same time. In addition, DEQ recommends adding fly ash contamination as a reason for granting this extension. PGE Boardman may be able to use activated carbon injection with an existing electrostatic precipitator to control mercury emissions until the SO_2 controls are installed. There is a possibility that this process could contaminate the fly ash, make it unusable for concrete production and require landfill disposal. If this occurs, PGE could be granted a two-year extension rather than one.

Next Steps

- If approved, DEQ will submit the Oregon Regional Haze Plan and accompanying regional haze rules, and Oregon Smoke Management Plan, to EPA as a revision to the Oregon State Clean Air Act Implementation Plan.
- PGE Boardman's Title V Permit will be modified to reflect the new rules.

Attachments

A. Proposed Rulemaking
   1. Proposed new regional haze rules, Division 223
   2. Oregon Smoke Management Plan, Division 629
   3. 2008 Oregon Regional Haze Plan (electronic copy, see attached disc)
   4. Proposed amendments to mercury rules, Division 228
   5. Executive Summary from the Oregon Regional Haze Plan
   6. Proposed changes to Plan to address PGE decision points proposal (excerpt from the revised Plan)

B. Summary of Public Comments and Agency Responses
C. Hearing 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. DEQ's Fiscal Impact Report
2. DEQ Visibility and Acid Deposition Modeling Analysis of the PGE Boardman Power Plant
3. Proposed Rulemaking Announcement
4. Written comments received
5. December 17, 2008 "decision points" comment letter from PGE
6. DEQ's BART Report for PGE Boardman
7. Rule Implementation Plan
8. Legal Notice of Hearing

Approved:

Section: Brian Finneran for
David Collier, Air Quality Planning Section Manager

Section: Linda Hayes-Gorman
Linda Hayes-Gorman, Eastern Region Air Quality Manager

Division: for
Andy Ginsburg, Air Quality Administrator

Report prepared by: Brian Finneran and Mark Fisher
Phone: 503-229-6278

Approved:

Section: _____
David Collier, Air Quality Planning Section Manager

Section: Linda Hayes-Gorman
Linda Hayes-Gorman, Eastern Region Air Quality Manager

Division: _____
Andy Ginsburg, Air Quality Administrator

Report prepared by: Brian Finneran and Mark Fisher
Phone: 503-229-6278

NOTE: Below are new rules for adoption. The redline/strikeout denotes changes made to the officially proposed rules in response to comment during the public comment period. The addition of the June 19, 2009 date was made to reflect the date for adopting these rules. There are two typo changes on page two, under 340-223-0030. One is in the section title, and the other is a zero inadvertently omitted from the 0.012 lb/mmBtu emission limit for particulate matter, in subsection 340-223-0030(1)(c).

DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION 223
REGIONAL HAZE RULES

340-223-0010
Purpose

OAR 340-223-0020 through 340-223-0050 establish requirements for certain sources emitting air pollutants that reduce visibility and contribute to regional haze in Class I areas, for the purpose of implementing Best Available Retrofit Technology (BART) requirements and other requirements associated with the federal Regional Haze Rules in 40 § CFR 51.308, ~~adopted July 1, 1999~~as in effect on June 19, 2009.

340-223-0020
Definitions

The definitions in OAR 340-200-0020 and this rule apply to this division. If the same term is defined in this rule and OAR 340-200-0020, the definition in this rule applies to this division.

(1) "BART-eligible source" means any source determined by the Department to meet the criteria for a BART-eligible source established in the federal BART rule in 40 § CFR 51.308, Appendix Y to Part 51, "Guidelines for BART Determinations Under the Regional Haze Rule", and in accordance with the Regional Haze Rule under 40 § CFR 51.308(e), as in effect on June 19, 2009~~July 1, 1999~~.

(2) "Best Available Retrofit Technology (BART)" means an emission limitation based on the degree of reduction achievable through the application of the best system of continuous emission reduction for each pollutant that is emitted by an existing stationary facility. The emission limitation must be established, on a case-by-case basis, taking into consideration the technology available, the costs of compliance, the energy and nonair quality environmental impacts of compliance, any pollution control equipment in use or in existence at the source or unit, the remaining useful life of the source or unit, and the degree of improvement in visibility which may reasonably be anticipated to result from the use of such technology.

(3) "Deciview" means a measurement of visibility impairment. A deciview is a haze index derived from calculated light extinction, such that uniform changes in haziness correspond to uniform incremental changes in perception across the entire range of conditions, from pristine to highly impaired. The deciview haze index is calculated based on the following equation (for the purposes of calculating deciview, the atmospheric light extinction coefficient must be calculated from aerosol measurements):

$$\textit{Deciview haze index} = 10 \ln_e (b_{ext}/10\ Mm^{-1})$$

Where b_{ext}= the atmospheric light extinction coefficient, expressed in inverse megameters (Mm^{-1}).

(4) "Subject to BART" means a BART-eligible source that based on air quality dispersion modeling causes visibility impairment equal to or greater than 0.5 deciview in any Class I area, at the 98th percentile for both a three-year period and one-year period.

340-223-0030

BART Requirements for the ~~for the~~ Foster-Wheeler boiler at the Boardman Coal-Fired Power Plant (Federal Acid rain program facility ORISPL code 6106)

(1) Emissions limits:

(a) On and after July 1, 2011, nitrogen oxides emissions must not exceed 0.28 lb/mmBtu heat input as a 30-day rolling average and 0.23 lb/mmBtu heat input as a 12-month rolling average.

(A) If it is demonstrated by July 1, 2012 that the emission limits in (a) cannot be achieved with combustion controls, the Department may grant an extension of compliance to July 1, 2014.

(B) If an extension is granted, the nitrogen oxides emissions must not exceed 0.23 lb/mm Btu heat input as a 30-day rolling average on and after July 1, 2014.

(b) On and after July 1, 2014, sulfur dioxide emissions must not exceed 0.12 lb/mmBtu heat input as a 30-day rolling average.

(c) On and after July 1, 2014, particulate matter emissions must not exceed 0.012 lb/mmBtu heat input as determined by compliance source testing.

(d) The emission limits in (a) through (c) above do not apply during periods of startup or shutdown.

(2) Compliance demonstration. Using the procedures specified in section (3) of this rule:

(a) Compliance with a 30-day rolling average limit must be demonstrated within 180 days of the compliance date specified in section (1) of this rule.

(b) Compliance with a 12-month rolling average must be demonstrated within 12 months of the compliance date specified in section (1) of this rule.

(3) Compliance Monitoring and Testing

(a) Compliance with the emissions limits in (1)(a) and (b) must be determined with a continuous emissions monitoring system (CEMS) installed, operated, calibrated, and maintained in accordance with the acid rain monitoring requirements in 40 CFR Part 75 as in effect on June 19~~April 24~~, 2009.

(A) The hourly emission rate in terms of lb/mmBtu heat input must be recorded each operating hour, including periods of startup and shutdown.

(B) The daily average emission rate must be determined for each boiler operating day using the hourly emission rates recorded in (A), excluding periods of startup and shutdown.

(C) 30-day rolling averages must be determined using all daily average emissions rates recorded in (B) whether or not the days are consecutive.

(D) 12-month rolling averages must be determined using calendar month averages based on all daily averages during the calendar month.

(b) Compliance with the particulate matter emissions limit in (1)(c) must be determined by EPA Methods 5 and 19 as in effect on June 19~~April 24~~, 2009.

(A) An initial test must be conducted by January 1, 2015.

(B) Subsequent tests must be conducted in accordance with a schedule specified in the Oregon Title V Operating Permit, but not less than once every 5 years.
(C) All testing must be performed in accordance with the Department's Source Sampling Manual as in effect on June 19~~April 24~~, 2009.

(4) Notifications and Reports
(a) The Department must be notified in writing within 7 days after any control equipment (including combustion controls) used to comply with emissions limits in section (1) begin operation.
(b) For NO_x and SO_2 limits based on a 30-day rolling average, a compliance status report, including CEMS data, must be submitted within 180 days of the compliance dates specified in section (1).
(c) If applicable, a compliance status report for the 12-month rolling average NO_x limit in section (1)(a) must be submitted by August 1, 2012.
(d) For particulate matter, a compliance status report, including a source test report, must be submitted within 60 days of completing the initial compliance test specified in section (3)(b).

340-223-0040
Additional NO_x Requirements for the Foster-Wheeler boiler at the Boardman Coal-Fired Power Plant (Federal Acid rain program facility ORISPL code 6106)
(1) On and after July 1, 2017, nitrogen oxides emissions must not exceed 0.070 lb/mmBtu heat input, excluding periods of startup and shutdown.
(a) Compliance with the NO_x emissions limit must be determined with a continuous emissions monitoring system in accordance with OAR 340-223-0030(2) and (3).
(b) The Department must be notified in writing within 7 days after any control equipment used to comply with the emission limit begins operation.
(c) A compliance status report, including CEMS data, must be submitted by January 1, 2018.

340-223-0050
Federally Enforceable Permit Limits
(1) Any BART-eligible source that causes visibility impairment less than 0.5 deciview in all Class I areas, at the 98th percentile for both a three-year period and one-year period, based on a federally enforceable permit limit or limits, is not subject to BART.
(2) If a BART-eligible source's federally enforceable permit limit will be terminated, and as a result the source will be subject to BART, the source is required to submit a BART analysis and install BART as determined by the Department prior to terminating the federally enforceable permit limit.
(3) The Foster-Wheeler boiler at The Amalgamated Sugar Company plant in Nyssa, Oregon (Title V permit number 23-0002) is a BART-eligible source, and air quality dispersion modeling demonstrates that it would be subject to BART while operating. However, it is not operating as of June 19~~April 24~~, 2009, and therefore is not subject to BART. Prior to resuming operation, the owner or operator of the source must either:
(a) Submit a BART analysis and install BART as determined by the Department by no later than July 1, 2014 or before resuming operation, whichever is later; or
(b) Obtain and comply with a federally enforceable permit limit assuring that the source's emissions will not cause the source to be subject to BART.

NOTE: The Oregon Smoke Management Plan was adopted by the Oregon Department of Forestry in November 2007. No changes were made to the plan as part of the proposed regional haze rulemaking. As noted on page seven of the EQC proposed rule adoption staff report, this plan is being adopted as a State Implementation Plan revision as part of this rulemaking.

DEPARTMENT OF FORESTRY
DIVISION 48
Smoke Management

629-048-0001
Title, Scope and Effective Dates

(1) OAR 629-048-0001 through 629-048-0500 are known as the Smoke Management Rules.

(2) The Smoke Management Rules apply to prescribed burning of forest fuels for forest management purposes within any forest protection district in Oregon as described by OAR 629-041-0500 to 629-041-0575.

(3) Except as otherwise specified in these rules, the smoke management rules are effective January 1, 2008.

Stat. Auth: ORS 477.013, 477.562 (as amended by ch. 213, OL 2007, Enrolled HB 2973), 526.016, 526.041

Stats. Implemented: ORS 477.013, 477.515, 477.562 (as amended by ch. 213, OL 2007, Enrolled HB 2973)

Hist.: DOF 4-2007, f. 12-31-07, cert. ef. 1-1-08

629-048-0005
Definitions

Unless otherwise defined below, terms used in this rule division shall have the meaning provided in ORS 477.001:

(1) "Board" means the State Board of Forestry.

(2) "Burn boss" means the person, authorized by the owner (may include the owner) or a federal land management agency to conduct and make decisions regarding the practices involved in conducting a prescribed burning operation and who is responsible for compliance with all requirements under this rule division and related laws.

(3) "Burn registration" means the act or product of notifying the forester to the required level of detail, of intent to conduct a prescribed burning operation as required by OAR 629-048-0300.

(4) "Class I Area" means Crater Lake National Park and certain wilderness areas designated by Congress as federal Class I Areas that are subject to visibility protection under the Environmental Protection Agency's Regional Haze Rule and the federal Clean Air Act.

(5) "Class 1 forestland" has the same meaning as given in ORS 526.324 to "timber class" and includes all forestland primarily suitable for the production of timber.

(6) "Class 2 forestland" has the same meaning as given in ORS 526.324 to "timber and grazing class" and includes all forestland primarily suitable for joint use for timber production and the grazing of livestock, as a permanent or semi-permanent joint use, or as a temporary joint use during the interim between logging and reforestation.

(7) "Class 3 forestland" has the same meaning as given in ORS 526.324 to "agricultural class" and includes all forestland primarily suitable for grazing or other agricultural use.

(8) "Department" means the State Forestry Department.

(9) "Eastern Oregon" means the eighteen Oregon counties lying east of Multnomah, Clackamas, Marion, Linn, Lane, Douglas, and Jackson Counties.

(10) "Emissions" means the gaseous and particulate combustion products in smoke resulting from burning forest fuels.

(11) "Federal land management agency" means the United States Department of Agriculture's Forest Service; the United States Department of the Interior's Bureau of Land Management, National Park Service, Fish and Wildlife Service, or Bureau of Indian Affairs; or any other federal agency that may conduct prescribed burning within a forest protection district.

(12) "Field administrator" means an employee of the State Forestry Department, a forest protective association, or federal land management agency who has, among other responsibilities, an official role in determining whether a prescribed burn should proceed, continue or be suspended.

(13) "Forester" means the State Forester or authorized representative including but not limited to fire wardens appointed under ORS 477.355.

(14) "Forest fuels" means any flammable woody material, grass or other plant matter that may constitute a wildfire hazard or that is intended for disposal by prescribed burning, but does not include products that have had secondary processing such as boards, posts or paper.

(15) "Forest protection district" means an area of forestland designated by the State Forester for protection from fire pursuant to ORS 477.225. Detailed descriptions of the forest protection districts may be found in OAR 629-041-0500 to 629-041-0575.

(16) "Ground level" means at or close to the surface of the earth such that smoke at "ground level" could be inhaled by persons going about their normal business, in or out of doors. It does not include smoke that passes overhead when prescribed burning is conducted in accordance with the smoke management forecast and instructions.

(17) "Level 1 regulation" means the program of requirements that apply to all forestland managed by a federal land management agency statewide, and all class 1 forestland in western Oregon within a forest protection district (OAR 629-048-0100(2). These requirements include burn registration at least seven days in advance (OAR 629-048-0300), fee administration (OAR 629-048-0310), compliance with smoke management forecast instructions (OAR 629-048-0230), and reporting of accomplishments (OAR 629-048-0320).

(18) "Level 2 regulation" means the program of requirements that apply to all non-federal forestlands in eastern Oregon, and all class 3 forestland in western Oregon within a forest protection district (OAR 629-048-0100(3). These requirements include burn registration (OAR 629-048-0300) and reporting of accomplishments (OAR 629-048-0320).

(19) "Mop-up" means action, usually involving the application of water or other means to eliminate heat, remove fuel or reduce the supply of oxygen, sufficient to make a fire safe or reduce residual smoke.

(20) "Other areas sensitive to smoke" means specific recreation areas not listed as SSRAs in OAR 629-048-0140 but that are intended to receive consideration for focused forecasting attention for limited times during periods of heavy use by the public such as coastal beaches on holidays, Class I Areas during peak summer use, and other areas during special events. All Oregon and Washington Class I areas shall be considered areas sensitive to smoke during the visibility protection period (July 1 to September 15), defined in the Oregon Visibility Protection Plan (OAR 340-020-0040, Section 5.2).

(21) "Prescribed burning" means the use of fire ignited as a planned management activity on

forestland to meet specific objectives involving the reduction or removal of forest fuels. Prescribed burning does not include impromptu fires ignited for purposes such as warming fires, burn-out or backfire operations used in wildfire suppression, or lightning ignited "wildland fire use" as practiced by federal land management agencies.

(22) "Regional haze" means air pollution transported over long distances into Class I Areas that reduces visibility in those areas.

(23) "Residual smoke" means smoke produced after the initial fire has passed through the fuel.

(24) "Smoke intrusion" means the verified entrance of smoke from prescribed burning into a smoke sensitive receptor area at ground level.

(25) "Smoke management forecast unit" means any or all of the persons appointed or assigned by the State Forester to develop and interpret weather forecasts and produce smoke management instructions, usually operating from the department headquarters in Salem.

(26) "Smoke sensitive receptor area or SSRA" means an area designated for the highest level of protection under the smoke management plan, as described and listed in OAR 629-048-0140.

(27) "Underburning" means low intensity prescribed burning to maintain forest health through reduction of fuels in the understory of a forest stand while maintaining the overstory stand characteristics.

(28) "Verified smoke incident" means an entrance of prescribed burning smoke into a community, other than an SSRA, investigated by the forester to:

(a) Validate claims that smoke did, in fact, enter the area described, at ground level;

(b) Determine if the smoke or a portion of it, in fact, derived from forest management prescribed burning from a legally conducted operation; and

(c) If (a) and (b) of this section were affirmed, determine the intensity and approximate duration of the smoke incident as described in OAR 629-048-0110.

(29) "Western Oregon" means the eighteen Oregon counties lying west of Hood River, Wasco, Jefferson, Deschutes and Klamath Counties.

Stat. Auth: ORS 477.013, 477.562 (as amended by ch. 213, OL 2007, Enrolled HB 2973), 526.016, 526.041

Stats. Implemented: ORS 477.013, 477.515, 477.562 (as amended by ch. 213, OL 2007, Enrolled HB 2973)

Hist.: DOF 4-2007, f. 12-31-07, cert. ef. 1-1-08

629-048-0010

Purpose

(1) ORS 477.013 requires the State Forester and the Department of Environmental Quality to approve a plan for managing smoke in areas that they are to designate, for the purpose of maintaining air quality. The plan must designate areas within which all burning must comply with the plan.

(2) The Smoke Management Rules are intended to establish the areas required by ORS 477.013; describe the objectives of the smoke management plan; establish procedures to be followed in administering prescribed burning; educate the public as to the necessity of prescribed burning and the measures being taken to protect air quality, public health and visibility; and to provide enforceable mechanisms to ensure the requirements of the smoke management plan are met.

(3) The Smoke Management Rules, promulgated by the State Forester, together with department directive 1-4-1-601, Operational Guidance for the Oregon Smoke Management

Program, shall comprise the smoke management plan upon approval by the Department of Environmental Quality and filing with the Secretary of State.

(4) The objectives of the smoke management plan are to:

(a) Prevent smoke resulting from prescribed burning on forestlands from being carried to or accumulating in smoke sensitive receptor areas or other areas sensitive to smoke, and to provide maximum opportunity for essential forestland burning while minimizing emissions;

(b) Coordinate with other state smoke management programs;

(c) Comply with state and federal air quality and visibility requirements;

(d) Protect public health; and

(e) Promote the reduction of emissions by encouraging cost effective utilization of forestland biomass, alternatives to burning and alternative burning practices.

Stat. Auth: ORS 477.013, 477.562 (as amended by ch. 213, OL 2007, Enrolled HB 2973), 526.016, 526.041

Stats. Implemented: ORS 477.013, 477.515, 477.562 (as amended by ch. 213, OL 2007, Enrolled HB 2973)

Hist.: DOF 4-2007, f. 12-31-07, cert. ef. 1-1-08

629-048-0020

Necessity of Prescribed Burning

(1) All of Oregon's forestlands are flammable under the right conditions of fuel dryness, heat and wind.

(2) As a part of the natural ecology of forestlands, wildfire is neither necessarily good nor bad, however, there are a number of characteristics of unplanned, uncontrolled fires that are usually regarded by humans as undesirable. Among these are threats to public safety, destruction of natural resources, destruction of property and the adverse health effects that can occur from breathing a significant amount of fine particulate matter associated with wildfire smoke.

(3) When areas do not experience fire or other means of reducing forest fuels for extended periods, there is a greater wildfire hazard and the likelihood increases that if unplanned ignitions occur, through whatever means, that the resulting wildfire will burn at greater intensity and be more difficult to suppress.

(4) Because wildfires typically burn during hotter, drier conditions than those usually planned for prescribed fires, forest fuels are more completely consumed, producing more emissions. Also, wildfires often occur during periods of atmospheric stability and thus air stagnation, trapping smoke close to the ground where it is more likely to impact humans and less likely to be quickly carried away by higher altitude transport winds.

(5) Prescribed burning is used as a management technique to reduce forest fuels either as the primary mechanism such as in grass and brush areas for maintenance of grazing, and underburning of open forest stands for forest health purposes; or as a secondary fuel reduction method following thinning or final harvesting. It is typically conducted at a time and under planned fuel and weather conditions whereby the fine fuels that more readily ignite and carry fire across the landscape are consumed but the larger fuels are consumed to a lesser degree than in a wildfire. Resulting emissions are both reduced overall, and more likely carried into higher altitudes and dissipated by high level winds, away from concentrations of people.

(6) When adequate forest fuel reduction can be achieved economically without the use of prescribed burning, because of other fire associated risks, that choice is usually favored. Even so, there are often silvicultural or agricultural advantages to prescribed burning such as site

preparation, nutrient cycling and reduction of pests and disease that may not be achieved by simply removing the forest fuels. For all of the reasons described above, the Legislative Assembly (ORS 477.552) and the Board of Forestry have found it necessary to maintain the viability of prescribed burning as a forest management practice.

Stat. Auth: ORS 477.013, 477.562 (as amended by ch. 213, OL 2007, Enrolled HB 2973), 526.016, 526.041

Stats. Implemented: ORS 477.013, 477.515, 477.562 (as amended by ch. 213, OL 2007, Enrolled HB 2973)

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629-048-0100
Regulated Areas

(1) All lands classified as "forestland" under ORS 526.305 to 526.370 and all forestland managed by a federal agency regardless of whether or not classified, within a forest protection district, are subject to regulation of prescribed burning pursuant to ORS 477.013. The level of regulation may vary according to specific classification; e.g., Class 1, 2 or 3 forestland as described in ORS 526.305 to 526.370.

(2) Class 1 forestland in western Oregon, and all forestland managed by a federal land management agency statewide, within a forest protection district, is subject to burn registration at least seven days in advance (OAR 629-048-0300), fee administration (OAR 629-048-0310), compliance with smoke management forecast instructions (OAR 629-048-0230), and reporting of accomplishments (OAR 629-048-0320). The forestlands and applicable regulations listed in this section may be referred to as "level 1 regulation."

(3) All other non-federal forestland within a forest protection district, including, but not limited to, private forestlands in eastern Oregon and Class 3 private forestland in western Oregon is subject to burn registration (OAR 629-048-0300) and reporting of accomplishments (OAR 629-048-0320) but is not subject to fee administration or compliance with smoke management forecast instructions. The forestlands and applicable regulations listed in this section may be referred to as "level 2 regulation."

(4) All prescribed burning on forestland within a forest protection district is subject to suspension of burning by the forester under ORS 477.520 due to conditions such as air stagnation or fire danger.

Stat. Auth: ORS 477.013, 477.562 (as amended by ch. 213, OL 2007, Enrolled HB 2973), 526.016, 526.041

Stats. Implemented: ORS 477.013, 477.515, 477.562 (as amended by ch. 213, OL 2007, Enrolled HB 2973)

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629-048-0110
Characterization of Smoke Incidents or Intrusions

(1)(a) When investigating or collecting information on smoke incidents or intrusions, the department will attempt to characterize the incident or intrusion in terms of its intensity (light, moderate or heavy) and its duration in hours or minutes. To the extent it can reasonably do so, the department may also attempt to determine the amount of populated area affected (in square miles or acres) and an estimate of the number of people present during the incident or intrusion.

(b) As used in the smoke management rules, "smoke intrusion" refers only to prescribed

burning smoke that enters a smoke sensitive receptor area at ground level. Nonetheless, the methods and descriptions described in this rule may be applied to the measurement of any smoke incident relevant to the smoke management plan.

(2) When measurements or observations are available, incidents or intrusions are characterized in the following manner based on nephelometer values (averaged over a one hour period) above the clean air background:

(a) A light intensity incident or intrusion is characterized by a light scattering measurement of less than 1.8 x 10-4 B-scat (Beta scatter);

(b) A moderate intensity incident or intrusion is characterized by a light scattering measurement of greater than or equal to 1.8 x 10-4 B-scat but less than or equal to 4.9 x 10-4 B-scat; and

(c) A heavy intensity incident or intrusion is characterized by a light scattering measurement of greater than 4.9 x 10-4 B-scat.

(3) The clean air background is the average nephelometer reading for the three hours prior to the incident or intrusion.

(4) When no nephelometer data are available, incident or intrusion intensity is characterized based on reduction in visibility (also averaged over a one hour period) using standard National Weather Service visibility observation criteria and a table of reductions keyed to various background visibility levels as displayed in department directive 1-4-1-601, *Operational Guidance for the Oregon Smoke Management Program.* As an example, on a day when background visibility has been greater than 50 miles, a light intensity incident or intrusion has reduced visibility to greater than or equal to 11.4 miles; a moderate intensity incident or intrusion has reduced visibility to less than 11.4 miles, but greater than or equal to 4.6 miles; and a heavy intensity incident or intrusion has reduced visibility to less than 4.6 miles.

Stat. Auth: ORS 477.013, 477.562 (as amended by ch. 213, OL 2007, Enrolled HB 2973), 526.016, 526.041

Stats. Implemented: ORS 477.013, 477.515, 477.562 (as amended by ch. 213, OL 2007, Enrolled HB 2973)

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629-048-0120

Air Quality Maintenance Objectives

(1) When prescribed burning is conducted in proximity to, but outside communities or areas designated as smoke sensitive receptor areas, the objective of the smoke management plan is no smoke intrusions into the SSRA.

(2) When prescribed burning is conducted inside a smoke sensitive receptor area, the smoke management plan objective is to use best burn practices and prompt mop-up, as appropriate, along with tight parameters for burn site conditions that are intended to vent the main smoke plume up and out of the SSRA and minimize residual smoke.

(3) In all other instances of prescribed burning it is the intent under the smoke management plan to minimize the amount and duration of smoke that comes in contact with humans at their places of residence or at other places where they normally gather in numbers such as to work, conduct commerce or participate in public events.

(4) The first element in minimizing smoke contact is encouraging forestland owners to burn only those units which cannot otherwise meet forest management objectives in cost effective alternative ways such as wood or biomass utilization.

(5) When prescribed burning is used, owners are further encouraged to employ the emission reduction techniques described in OAR 629-048-0210 to ensure the least emissions practicable.

(6) In addition to compliance with smoke management instructions issued in the daily forecast and compliance with all conditions of the burn permit required under ORS 477.515, burn bosses and field administrators are encouraged to closely observe local conditions at the burn site and to light, manage, suspend lighting if necessary, and mop-up burns, when appropriate, in a manner that takes into consideration the possible smoke effects from the main smoke plume or significant residual smoke on residences or businesses that may be in close proximity to the burn site.

Stat. Auth: ORS 477.013, 477.562 (as amended by ch. 213, OL 2007, Enrolled HB 2973), 526.016, 526.041

Stats. Implemented: ORS 477.013, 477.515, 477.562 (as amended by ch. 213, OL 2007, Enrolled HB 2973)

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629-048-0130
Visibility Objectives

(1) It is the intent under the smoke management plan to comply with the Oregon Visibility Protection Plan (OAR 340-200-0040, Section 5.2).

(2) It is the intent under the smoke management plan to operate in a manner consistent with the Oregon Regional Haze Plan, including the Enhanced Smoke Management Program (ESMP) criteria contained in the plan, for the purpose of protecting Class I Area visibility. These ESMP criteria include:

(a) Actions to minimize emissions;
(b) Evaluation of smoke dispersion;
(c) Alternatives to fire;
(d) Public notification;
(e) Air quality monitoring;
(f) Surveillance and enforcement;
(g) Program evaluation;
(h) Burn authorization; and
(i) Regional coordination.

(3) When prescribed burning is conducted outside any Class I Area during the visibility protection period (July 1 to September 15), an objective of the smoke management plan is to minimize any smoke that impairs visibility inside the Class I Area.

(4) When prescribed burning is conducted inside a Class I Area, the smoke management plan objective is to use best practices along with tight parameters for burn site conditions that will vent the main smoke plume up and out of the Class I Area and minimize residual smoke.

(5) When prescribed burning is conducted outside the visibility protection period in proximity to, but outside and upwind of Class I Areas, in addition to compliance with smoke management instructions issued in the daily forecast and compliance with all conditions of the burn permit required under ORS 477.515, burn bosses and field administrators are encouraged to closely observe local conditions at the burn site to avoid the main smoke plume entering a Class I Area at ground level.

(6) The Class I Areas in Oregon include Crater Lake National Park, Diamond Peak Wilderness, Eagle Cap Wilderness, Gearhart Mountain Wilderness, Hells Canyon Wilderness, Kalmiopsis Wilderness, Mountain Lakes Wilderness, Mount Hood Wilderness, Mount Jefferson

Wilderness, Mount Washington Wilderness, Strawberry Mountain Wilderness and Three Sisters Wilderness.

Stat. Auth: ORS 477.013, 477.562 (as amended by ch. 213, OL 2007, Enrolled HB 2973), 526.016, 526.041

Stats. Implemented: ORS 477.013, 477.515, 477.562 (as amended by ch. 213, OL 2007, Enrolled HB 2973)

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629-048-0140

Smoke Sensitive Receptor Areas

A smoke sensitive receptor area is an area designated by the board, in consultation with the Department of Environmental Quality, that is provided the highest level of protection under the smoke management plan because of its past history of smoke incidents, density of population or other special legal status related to visibility such as the Columbia River Gorge Scenic Area. The following are smoke sensitive receptor areas:

(1) The area within the State of Oregon commonly understood to be the Willamette Valley that:

(a) Lies east of the forest protection district boundaries of the Northwest Oregon, West Oregon and Western Lane Forest Protection Districts, west of the forest protection district boundaries of the North Cascade and South Cascade Forest Protection Districts and north of where the Western Lane and South Cascade Forest Protection Districts come together in southern Lane County (for detailed district boundary descriptions, see OAR 629-041-0500 to 629-041-0575);

(b) Notwithstanding the actual location of the forest protection district boundaries, includes the area within the city limits of the following cities that straddle, or are within but immediately adjoin, the forest protection district boundary:

(A) Carlton;
(B) Corvallis;
(C) Cottage Grove;
(D) Eugene;
(E) McMinnville;
(F) Portland;
(G) Sheridan;
(H) Silverton;
(I) Springfield;
(J) St. Helens;
(K) Stayton;
(L) Sublimity;
(M) Veneta;
(N) Willamina; and
(O) Yamhill;

(2) Within the acknowledged urban growth boundaries of the following cities:

(a) Astoria;
(b) Baker City;
(c) Bend;
(d) Burns;
(e) Coos Bay;

(f) Enterprise;
(g) Grants Pass;
(h) John Day;
(i) Klamath Falls;
(j) LaGrande;
(k) Lakeview;
(l) Lincoln City;
(m) Newport;
(n) North Bend;
(o) Oakridge;
(p) Pendleton;
(q) Redmond;
(r) Roseburg;
(s) The Dalles; and
(t) Tillamook;

(3) The area within the Bear Creek and Rogue River Valleys described in OAR 629-048-0160, including the cities of Ashland, Central Point, Eagle Point, Jacksonville, Medford, Phoenix and Talent; and

(4) The area within the Columbia River Gorge Scenic Area, as described in 16 U.S.C. Section 544b, (2003).

Stat. Auth: ORS 477.013, 477.562 (as amended by ch. 213, OL 2007, Enrolled HB 2973), 526.016, 526.041

Stats. Implemented: ORS 477.013, 477.515, 477.562 (as amended by ch. 213, OL 2007, Enrolled HB 2973)

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629-048-0150
Criteria for Future Listing of Smoke Sensitive Receptor Areas

To ensure continued accomplishment of the smoke management plan objectives, additional smoke sensitive receptor areas may be listed according to the following procedures:

(1) Not more than once per calendar year, the board must consider additional SSRA listings if:

(a) The department recommends consideration of a community for SSRA listing based on observations of repeated verified smoke incidents as described in section (5) of this rule;

(b) The Department of Environmental Quality recommends consideration of a community for SSRA listing based on evidence of airborne particulate concentrations in the community at levels that make periodic exceedance of ambient air quality standards a significant possibility; or

(c) The governing body of a city, or county for an unincorporated area, requests by official action consideration of a community for SSRA listing, and cites the reasons for its request upon:

(A) The occurrence of a verified smoke incident lasting more than four hours;

(B) More than one verified smoke incident in the same calendar year; or

(C) Repeated verified smoke incidents as described in section (5) of this rule that have occurred within the five years immediately preceding the request.

(2) When considering whether to list a community as an SSRA, the Board shall evaluate the evidence presented to it, including any information received at one or more public meetings.

(a) Specifically, the board shall consider information regarding:

(A) The frequency, duration and intensity of verified smoke incidents;

(B) Population of the community;

(C) The results, if any, of mechanical or systematic monitoring of airborne particulate concentrations, or other verifiable information regarding existing air quality problems in the community under consideration;

(D) The nature and performance of any local programs addressing airborne particulate concentrations;

(E) Recent trends in, and future plans for, prescribed burning activity on surrounding forestlands;

(F) Any local topographic or meteorological effects that may influence the frequency, duration or intensity of smoke incidents;

(G) Evaluation of the local and regional effect that listing the community as an SSRA will have on the smoke management plan's objectives of maintaining air quality and accomplishing necessary prescribed burning;

(H) The reasons cited in a request received under subsection (1)(c) of this rule;

(I) The joint recommendations of the department and the Department of Environmental Quality regarding whether the community should be listed and why; and

(J) Any other information that is relevant to accomplishing the objectives of the smoke management plan.

(b) If joint recommendations are not achieved under paragraph (2)(a)(I) above, the department shall prepare a report for the board detailing any differences in recommendations and its explanations for the differences.

(3) After considering the evidence presented to it, except as provided in section (4) of this rule, the board may take any one of the following actions:

(a) Reject the recommendation or request;

(b) Acknowledge that smoke incidents have occurred, but direct the department to pursue an alternate course of further information gathering, monitoring, operational modifications or other efforts aimed at reducing the likelihood of continuing smoke incidents; or

(c) Accept the recommendation or request by defining the applicable boundaries of the community to be listed, directing the department to begin treating the community as an SSRA and following a timely process to amend OAR 629-048-0140 accordingly.

(4)(a) The board's choice of actions shall be limited to those described in either subsections (b) or (c) of this section, if it finds that all of the following circumstances exist:

(A) The community proposed for listing has incurred repeated verified smoke incidents as described in section (5) of this rule, that have occurred within the five years immediately preceding the request or recommendation in section (1) above;

(B) The community is a city with a population in excess of 10,000 within the incorporated city limits, according to the most recently published population estimate of the Population Research Center, Portland State University; and

(C) There is a likelihood of continuing frequent use of prescribed burning as a forest management activity on forestland within 30 miles of the city limits.

(b) For communities with no air quality monitoring data, the board may delay a final action determining whether to list the community as an SSRA if monitoring equipment is installed in the community to gather information leading to a final determination; or

(c) The board may define the applicable boundaries of the community to be listed, direct the department to begin treating the community as an SSRA and follow a timely process to amend OAR 629-048-0140 accordingly.

(5) "Repeated verified smoke incidents" as used in this rule refers to any of the following combinations of verified smoke incidents resulting from lawfully conducted prescribed burning on forestland in any continuous period of three years or less:

(a) One heavy intensity smoke incident and one moderate or light intensity smoke incident, the latter lasting at least one hour;

(b) Two moderate intensity smoke incidents, both lasting at least one hour; or

(c) Three or more smoke incidents of any combination of intensity for a combined duration of at least three hours (using the intensity parameters described in OAR 629-048-0110 for all of the above).

Stat. Auth: ORS 477.013, 477.562 (as amended by ch. 213, OL 2007, Enrolled HB 2973), 526.016, 526.041

Stats. Implemented: ORS 477.013, 477.515, 477.562 (as amended by ch. 213, OL 2007, Enrolled HB 2973)

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629-048-0160

Bear Creek/Rogue River Valley SSRA

The Bear Creek and Rogue River Valley smoke sensitive receptor area listed in OAR 629-048-0140 (3) is defined as beginning at a point approximately one mile NE of the town of Eagle Point, Jackson County, Oregon, at the NE corner of Section 36, T35S, R1W; thence south along the Willamette Meridian to the SE corner of Section 25, T37S, R1W; thence SE to the SE corner of Section 9, 39S, R2E; thence SSE to the SE corner of Section 22, T39S, R2E; thence south to the SE corner of Section 27, T39S, R2E; thence SW to the SE corner of Section 33, T39S, R2E; thence west to the SW corner of Section 31, T39S, R2E; thence NW to the NW corner of Section 36, T39S, R1E; thence west to the SW corner of Section 26, T39S, R1E; thence NW to the SE corner of Section 7, T39S, R1E; thence west to the SW corner of Section 12, T39S, R1W; thence NW to the SW corner of Section 20, T38S, R1W; thence west to the SW corner of Section 24, T38S, R2W; thence NW to the SW corner of Section 4, T38S, R2W; thence west to the SW corner of Section 5, T38S, R2W; thence NW to the SW corner of Section 31, T37S, R2W; thence north to the Rogue River, thence north and east along the Rogue River to the north boundary of Section 32, T35S, R1W; thence east to the point of beginning.

Stat. Auth: ORS 477.013, 477.562 (as amended by ch. 213, OL 2007, Enrolled HB 2973), 526.016, 526.041

Stats. Implemented: ORS 477.013, 477.515, 477.562 (as amended by ch. 213, OL 2007, Enrolled HB 2973)

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629-048-0200

Alternatives to Burning

(1) When planning forest management prescriptions and particularly final harvests (prior to reforestation), owners are encouraged to use practices that will eliminate or significantly reduce the volume of prescribed burning necessary to meet their management objectives. Some practices to consider include, but are not limited to:

(a) Maximizing the cost-effective use of woody material for manufacture of products;

(b) Where cost-effective, using wood or other biomass for energy production or mulch;

(c) Lopping and scattering limbs and other woody material, or operating heavy machinery over

the wood to maximize contact with the soil in order to speed its breakdown; or

(d) Re-arranging woody materials, as necessary to accomplish reforestation through the slash (from a fire prevention standpoint, this may not be desirable in areas of heavy fuel concentrations or where soil moistures are not conducive to breakdown of fuels).

(2) When prescribed burning is determined to be necessary to achieve forest management objectives, owners are encouraged to use emission reduction techniques as described in OAR 629-048-0210.

(3) The following publications are recommended reading for forestland managers who frequently engage in prescribed burning:

(a) "Non-burning Alternatives to Prescribed Fire on Wildlands in the Western United States" (Western Regional Air Partnership, February, 2004); and

(b) "Annual Emission Goals for Fire Policy" (Western Regional Air Partnership, April, 2003).

Stat. Auth: ORS 477.013, 477.562 (as amended by ch. 213, OL 2007, Enrolled HB 2973), 526.016, 526.041

Stats. Implemented: ORS 477.013, 477.515, 477.562 (as amended by ch. 213, OL 2007, Enrolled HB 2973)

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629-048-0210

Best Burn Practices; Emission Reduction Techniques

(1) "Best burn practices" as used in this rule refers to those practices designed to minimize emissions from prescribed burning or accomplish burning at times and under such conditions as to minimize the likelihood that emissions will have adverse effects to the air quality maintenance or visibility objectives (OAR 629-048-0120 and 629-048-0130). Additional practices not described in this rule may be necessary to ensure against the escape of fire or protection of forest resources.

(2) In general, best burn practices involve methods that ensure the most rapid and complete combustion of forest fuels while nearby, "non-target" fuels are prevented from burning, such as:

(a) Physical separation of "target" and "non-target" fuels;

(b) Burn prescriptions, particularly for broadcast burns, that recognize and utilize the natural differences in fuel moistures of larger and smaller pieces of woody material; or

(c) Covering of piles sufficient to facilitate ignition and complete combustion, and then burning them at times of the year when all other fuels are damp, when it is raining or there is snow on the ground.

(3) Rapid combustion is well served by rapid ignition which may involve the use of petroleum accelerants (with appropriate safety precautions) and by maintaining an adequate air supply to the forest fuels being burned. Piles and windrows should be mostly free of soil, rocks and other non-combustible materials and should be loosely stacked to promote aeration. Where practicable, re-stacking or "feeding" the burn pile is encouraged to complete combustion and avoid smoldering.

(4) When piles are covered as a best burn practice and the covers are to be removed before burning, any effective materials may be used, as long as they are removed for re-use or properly disposed of. When covers will not be removed and thus will be burned along with the piled forest fuels, the covers must not consist of materials prohibited under OAR 340-264-0060(3), except that polyethylene sheeting that complies with the following may be used:

(a) Only polyethylene may be used. All other plastics are prohibited;

(b) The size of each polyethylene cover must not exceed 100 square feet. For small piles, covering only an area necessary to achieve rapid ignition and combustion, instead of the entire

pile, is encouraged;

(c) The thickness of the polyethylene cover must not exceed 4 mil; and

(d) Layering or multiple covers (exceeding 100 square feet combined) within a pile is prohibited, unless authorized in writing by the forester to meet ignition and combustion needs.

(5) The use of petroleum accelerants and polyethylene covers as "best burn practices" described in this rule is expressly intended as an exception to OAR 340-264-0060(3) as allowed by 340-264-0060.

(6) In general, rapid mop-up of prescribed burning is not needed to meet the objectives of the prescribed burn and protect air quality, however, in instances of prescribed burning within an SSRA or when conditions change significantly from those forecasted or present at the time of ignition, rapid mop-up may become necessary to prevent excessive residual smoke or entry of smoke into an SSRA or other area sensitive to smoke. Burn plans required under OAR 629-043-0026(4), prescribed fire plans required by federal land management agency policy, or burn permits required under ORS 477.515, when appropriate, should address conditions that may require mop-up of the prescribed burn and to what extent.

(7) When local conditions for smoke dispersal appear to be better than forecasted, burn bosses and field administrators are encouraged to communicate such information to the smoke management forecast unit, to further the objective of accomplishing burning during the most favorable conditions.

Stat. Auth: ORS 477.013, 477.562 (as amended by ch. 213, OL 2007, Enrolled HB 2973), 526.016, 526.041

Stats. Implemented: ORS 477.013, 477.515, 477.562 (as amended by ch. 213, OL 2007, Enrolled HB 2973)

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629-048-0220

Forecast Procedures

(1) There are several concepts and procedural steps involved in accomplishing the smoke management plan objectives, designed to maximize opportunities for accomplishing burning while minimizing the likelihood of public health effects or visibility impairment in Class I Areas. The following sections of this rule attempt to explain some of these concepts.

(2) The basic underlying mechanism in smoke management is the use of an understanding of atmospheric dynamics and combustion processes, in concert with current weather forecasts, to ensure that the bulk of emissions from prescribed burning are transported to areas of low or no adverse effect by:

(a) In the case of broadcast or large pile burning, generating heat rapidly so that the fuel is quickly consumed and emissions rise sufficiently above ground level to either:

(A) Become diluted, and dispersed in the atmosphere via transport winds to areas of minimal impact; or

(B) Mix with the moisture in clouds and fall back to earth as precipitation; or

(b) In the case of low intensity underburning or small piles under the forest canopy, managing the volume of material burned per unit of time and paying careful attention to surface winds to keep total emissions low and disperse the smoke to unpopulated areas.

(3) For each day that prescribed burning is planned on forestland with level 1 regulation, a weather forecast is prepared by meteorologists specializing in smoke management. By examining the atmospheric conditions predicted for the burn day, such as vent heights, mixing layers, wind

speed and direction, as well as information about what level of pollutants may already be present in a given area, the meteorologists determine if and where conditions will be favorable to accomplish burning.

(4) In addition to the weather forecast, specific information is required on the location of planned burns, and the tonnage of fuel that is expected to be consumed in a burn. This information is provided on a per unit basis at the time that burns are registered and planned with the forester (see OAR 629-048-0300).

(5) With knowledge of the information described above, and based on dispersion models that have been developed through time and experience, forecasters are able to reasonably predict how much smoke, and at what locations, can be put into the atmosphere without likelihood of threat to air quality objectives. This information is then converted into instructions to field administrators and burn bosses as to what tonnages, in what weather zones and at what distances from SSRAs prescribed burning may be permitted.

(6) The forecast and instructions are made available to field administrators and any interested parties by 3:15 p.m. each day, as necessary. Locally, planned burns are compared against the forecast and instructions, as well as any local prioritization of burns, to determine which burns, if any, will be permitted on the following day. If there are any changes in the forecast for the day of the burn, the smoke management forecast unit will make every effort to place a message on an automatic answering phone by 8:00 a.m.

Stat. Auth: ORS 477.013, 477.562 (as amended by ch. 213, OL 2007, Enrolled HB 2973), 526.016, 526.041

Stats. Implemented: ORS 477.013, 477.515, 477.562 (as amended by ch. 213, OL 2007, Enrolled HB 2973)

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629-048-0230
Burn Procedures

(1) Before any prescribed burning is initiated, burn bosses should have a well thought out plan that takes into account:

(a) How weather will be monitored and changes in conditions will be communicated;

(b) Resources necessary to accomplish ignition and ignition sequences;

(c) Resources and methodology necessary to contain and control the fire and prevent its escape, including communications to access additional resources, if necessary; and

(d) How the burn will be conducted to avoid smoke entering smoke sensitive receptor areas or other areas sensitive to smoke and to minimize smoke effects on other communities.

(2) The forester may require that a written burn plan be prepared for approval under OAR 629-043-0026(4), prior to issuance of a burn permit. A prescribed fire plan is required under federal policy for all prescribed burning on federal lands.

(3) Prescribed burn operations with large tonnages (2000 tons or more) or burns that will occur over multiple days should be adequately planned to provide opportunities to cease lighting and hold the existing burn within smaller compartments to mitigate undesirable smoke effects or changes in the actual burn conditions from those that were forecasted.

(4) For prescription burn units on forestland subject to level 1 regulation, burn bosses must provide specific information to be transmitted to the smoke management forecast unit in a standard format acceptable to the forester, regarding unit location, method of burning, and fuel loading tonnages by 5:00 p.m. on the day before the burn.

(5)(a) Before ignition of any prescribed burning in a fire season (as designated by the forester under ORS 477.505), the burn boss must obtain a permit to burn from the forester as required by ORS 477.515 (not required for federal land management agencies). Federal land management agencies must follow agency policies that provide for an affirmative "go-no go decision" before ignition of any prescribed burning as documented and approved by the federal land management agency's line officer.

(b) A permit to burn from the forester is also required for all prescribed burning on non-federal Class 1 forestland in western Oregon at any time of the year.

(c) Under ORS 477.515(1)(a), the forester may waive the requirement for a burn permit in instances of burning other than described in subsections (a) and (b) of this section, so burn bosses should check with the forester locally to determine whether permits are required outside fire season.

(6) Before ignition of any prescribed burning on forestland subject to level 1 regulation, the burn boss must obtain the current smoke management forecast and instructions and must conduct the burning in compliance with the instructions. Burn bosses must make provisions to be informed if the forecast or instructions are subsequently changed. Through communication among the burn boss, field administrator and the smoke management forecast unit, based on information specifically relevant to the burn location, a burn boss may obtain a variance from the instructions, but must document the time and method of communication and adhere strictly to the conditions of the variance.

(7) For prescribed burn operations with large tonnages (greater than 2000 tons) or burns that will occur over multiple days, burn bosses may request at least two days in advance that a special forecast and instructions be issued to ensure adequate attention to meeting smoke management plan objectives. Issuance of a special forecast and instructions will be solely within the discretion of the smoke management forecast unit based on workload and sufficient local information to support the forecast.

(8) The smoke management forecast unit, in developing instructions, and each field administrator issuing burn permits are directed to manage the prescribed burning on forest land in connection with the management of other aspects of the environment in order to maintain a satisfactory atmospheric environment in smoke sensitive receptor areas. This direction is to be applied to situations in which prescribed burning may impact SSRAs or other areas sensitive to smoke.

(9) Each burn boss or field administrator must validate that forecasted weather conditions are consistent with actual on-site conditions prior to ignition of burns.

(10) A burn boss is required to terminate ignition, in a manner that does not compromise worker safety or the ability to prevent escape of the burn, if either of the following occurs:

(a) The burn boss determines, or is advised by a field administrator, that an SSRA, or other area sensitive to smoke is already adversely affected by the burn or would likely become so with additional burning; or

(b) The burn boss receives notice from the forester, through the smoke management forecast unit, or following consultation with the Department of Environmental Quality, that air in the entire state or portion thereof is, or would likely become adversely affected by smoke.

(11) Upon termination of ignition required by section (10) of this rule, any burning already under way should be completed, residual burning should be extinguished as soon as practicable, and no additional burning may be attempted until approval has been received from the forester.

Stat. Auth: ORS 477.013, 477.562 (as amended by ch. 213, OL 2007, Enrolled HB 2973),

526.016, 526.041
Stats. Implemented: ORS 477.013, 477.515, 477.562 (as amended by ch. 213, OL 2007, Enrolled HB 2973)
Hist.: DOF 4-2007, f. 12-31-07, cert. ef. 1-1-08

629-048-0300
Registration of Intent to Burn

(1) In all instances of prescribed burning on forestland within a forest protection district, the operator, federal land manager, landowner, or timber owner must first register with the forester all forestland that is intended to be burned. For forestland subject to level 1 regulation, burn registration must be completed at least seven days before the first day of ignition. Mandatory registration of prescribed burning on forestland subject to level 2 regulation is effective January 1, 2009.

(2) The forester may waive the seven day waiting period required in section (1) of this rule contingent upon the forester's approval of a burn plan or conditions of federally prescribed fire policies having already been met.

(3) Information provided for burn registration must be complete and recorded in a standard format approved by the forester.

(4) No operator, federal land management agency, landowner or timber owner shall be allowed to register additional forestland for burning if payment for their previous registration or burning, when required pursuant to OAR 629-048-0310, is more than 90 days past due.

Stat. Auth: ORS 477.013, 477.562 (as amended by ch. 213, OL 2007, Enrolled HB 2973), 526.016, 526.041
Stats. Implemented: ORS 477.013, 477.515, 477.562 (as amended by ch. 213, OL 2007, Enrolled HB 2973)
Hist.: DOF 4-2007, f. 12-31-07, cert. ef. 1-1-08

629-048-0310
Fees for Prescribed Burning

(1) Any prescribed burning on forestland subject to level 1 regulation (OAR 629-048-0100) requires payment of a non-refundable registration fee of $.50/acre and upon accomplishment (see section (3) of this rule), a burn fee as further described in sections (2), (3), (5), (6) and (8) below.

(2) Burn fees for all forms of prescribed burning, including but not limited to, broadcast burning and burning of piles (whether in-unit, on landings, or from rights-of-way) shall be assessed (where required) against the total acres in the unit from which the forest fuels were accumulated, as described in the burn registration.

(3) The first time that fire is applied to a prescribed burn unit, regardless of actual accomplishment, payment of a burn fee is required. Burn fees shall be charged according to the following schedule:

(a) If only landing or right-of-way piles are burned, the burn fee shall be $.50 per acre. Subsequent attempts to improve accomplishment only in landing or right-of-way piles in the same unit, in the same calendar year or the two following calendar years, shall not incur additional fees.

(b) If subsequent to burning only landing or right-of-way piles, the first time fire is applied to any other portion of a registered unit (typically broadcast or in-unit pile burning), an additional burn fee of $2.60 per acre shall be required.

(c) If the first application of fire to the registered unit includes other than landing or right-of-

way piles, the burn fee shall be $3.10 per acre regardless of whether landing or right-of-way piles are burned. Subsequent attempts to improve accomplishment in any portion of the same unit, in the same calendar year or the two following calendar years, shall not incur additional fees.

(4) (a) As used in this rule, "landing" means any location logs are yarded to for processing (trimming ends or limbs and tops remaining after yarding) and assembling for forwarding or loading onto trucks, including each loading site that may occur along a road. Consequently, a landing pile contains only those residues resulting from the processing, and not additional forest fuels accumulated from growth on the site or the felling process.

(b) As used in this rule, "right-of-way piles" means any accumulated forest fuels that come only from the area cleared in the pioneering stage of road construction after appropriate utilization.

(5) Areas burned as a result of escaped fires that are outside the description of the registered burn area shall not be assessed fees if the fire outside of the described area is immediately attacked for wildfire suppression. If the fire outside of the described area is managed as a prescribed fire then every additional acre burned shall incur a registration fee of $.50 per acre and a burn fee of $3.10 per acre.

(6) Notwithstanding section (3) of this rule, forest health maintenance burning on forestland subject to level 1 regulation, where significant fuel reduction has been accomplished through underburning within the last five years and where there are no piled forest fuels on the site, shall be charged a burn fee of $.50 per acre.

(7) The forester shall prepare monthly billings to collect the appropriate registration and burn fees from the operator, federal land manager, landowner or timber owner whose name is recorded on the registration form for billing purposes.

(8) Notwithstanding sections (1) and (3) of this rule, each burn unit requires a minimum combined registration and burn fee of $30.00. To reduce processing costs, the forester may elect to collect both registration and burn fees prior to accomplishment, for units less than 20 acres on one combined billing.

(9) Notwithstanding sections (1), (3) and (7) of this rule, in accordance with ORS 477.562(6) (as amended by Chapter 213, Oregon Laws, 2007; enrolled HB 2973), a federal land management agency may enter into a cooperative agreement with the forester for payment of registration and burn fees at an annual flat rate. The rate shall be based on estimated acres to be treated as a percentage of total acres on all ownerships, applied against the overall annual estimated operating cost of the smoke management plan. Any such agreement shall have a provision that allows for periodic adjustment of the rate based on actual experience.

(10) Notwithstanding section (7) of this rule, any person or entity described in ORS 477.406(1) with a prior record of timely payment may, at the discretion of the forester, enter into a cooperative agreement for the efficient administration and payment of registration and burn fees provided all payments equal no less than the registration rate described in section (1) of this rule times the number of acres registered plus the burn fee rate in sections (3) or (6) of this rule, as appropriate, times the number of acres accomplished.

Stat. Auth: ORS 477.013, 477.562 (as amended by ch. 213, OL 2007, Enrolled HB 2973), 526.016, 526.041

Stats. Implemented: ORS 477.013, 477.515, 477.562 (as amended by ch. 213, OL 2007, Enrolled HB 2973)

Hist.: DOF 4-2007, f. 12-31-07, cert. ef. 1-1-08

629-048-0320

Reporting of Accomplishments

(1) Accomplishment information for all prescribed burning that takes place on forestland within the regulated area described in OAR 629-048-0100 must be recorded in a manner that details the amount of burning and emissions produced for each day of burning and must be reported to the department according to the schedule described below and in standard formats prescribed by the forester.

(2) Prescribed burning on forestland subject to level 1 regulation must be reported the next business day following each day's ignition as described in department directive 1-4-1-601, Operational Guidance for the Oregon Smoke Management Program, **Appendix 1**.

(3) Prescribed burning on forestland subject to level 2 regulation must be reported by the first business day of the week following ignition as described in department directive 1-4-1-601, Operational Guidance for the Oregon Smoke Management Program, **Appendix 1**.

(4) Section (3) of this rule is effective January 1, 2009.

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

Stat. Auth: ORS 477.013, 477.562 (as amended by ch. 213, OL 2007, Enrolled HB 2973), 526.016, 526.041

Stats. Implemented: ORS 477.013, 477.515, 477.562 (as amended by ch. 213, OL 2007, Enrolled HB 2973)

Hist.: DOF 4-2007, f. 12-31-07, cert. ef. 1-1-08

629-048-0330

Emission Inventories

(1) In addition to the emissions information collected from prescribed burning under OAR 629-048-0320, the forester will annually estimate, using appropriate models and the best available information on acres burned and fuel type, the emissions produced by wildfires in Oregon. At a minimum, the forester will attempt to collect information about wildfires that burn on forestlands within a forest protection district.

(2) Emissions information from prescribed burning and from wildfires will be maintained as distinct inventories, in appropriate forms, for analysis and distribution to improve the overall understanding of the relationships of wildfire versus prescribed fire emissions.

(3) The forester may include as much information on wildfires as may be readily available from the various protection agencies and other cooperators, provided that gathering of such information does not create an unfunded cost to the smoke management program.

Stat. Auth: ORS 477.013, 477.562 (as amended by ch. 213, OL 2007, Enrolled HB 2973), 526.016, 526.041

Stats. Implemented: ORS 477.013, 477.515, 477.562 (as amended by ch. 213, OL 2007, Enrolled HB 2973)

Hist.: DOF 4-2007, f. 12-31-07, cert. ef. 1-1-08

629-048-0400

Coordination with Other Regulating Jurisdictions and for Other Pollutants

(1) In order to meet the air quality maintenance and visibility objectives of the smoke management plan (OAR 629-048-0120 and 629-048-0130), it is important that the forester, field administrators and other cooperators be well informed as to the existence of, or potential for smoke or other airborne pollutants other than that which will be produced by any planned prescribed burning in the affected airshed. Local field administrators are encouraged to maintain

working relationships with other local jurisdictions that authorize open burning or monitor air quality so that all parties may be adequately informed of planned burns or conditions that cumulatively might exceed standards or objectives.

(2) The forester is required to report the weather forecast, planned and accomplished burning and smoke intrusions, if any, to the Department of Environmental Quality for each applicable day, on a timely basis.

(3) Any wildfire that has the potential for smoke input into an SSRA or other area sensitive to smoke must be reported immediately by the local unit of the state or federal agency with jurisdiction for fire suppression to the State Forester's office.

(4) The smoke management forecast unit will communicate periodically with appropriate prescribed burning regulators in the surrounding states for the purpose of coordination and information sharing, as appropriate.

Stat. Auth: ORS 477.013, 477.562 (as amended by ch. 213, OL 2007, Enrolled HB 2973), 526.016, 526.041

Stats. Implemented: ORS 477.013, 477.515, 477.562 (as amended by ch. 213, OL 2007, Enrolled HB 2973)

Hist.: DOF 4-2007, f. 12-31-07, cert. ef. 1-1-08

629-048-0450

Periodic Evaluation and Adaptive Management

(1) The department is responsible for analysis and evaluation of the prescribed burning operations conducted under the smoke management plan.

(2) Reports summarizing annual activities of the program shall be published by the department addressing:

(a) The level of burning activity;

(b) Results with regard to avoiding entrance of smoke into SSRAs and other areas sensitive to smoke and reports of any smoke intrusions;

(c) Accomplishment of alternatives to burning and the use of emission reduction techniques;

(d) Evaluation of overall smoke management plan accomplishment;

(e) Evaluation of adequacy of listed SSRAs and protection measures;

(f) Any other pertinent information related to smoke management plan evaluation and improvement; and

(g) Revenues generated from burn fees and related smoke management plan costs.

(3) Copies of the reports described in section (2) of this rule will be made available to all interested parties.

(4) Upon publication of a report in accordance with section (2) of this rule, the forester will consult at least annually with the Smoke Management Advisory Committee created under ORS 477.556. Topics will include, but are not limited to, smoke management plan implementation, status of the Oregon Forest Smoke Management Account (ORS 477.560), and any fee changes that may be appropriate based on the balance in this account.

Stat. Auth: ORS 477.013, 477.562 (as amended by ch. 213, OL 2007, Enrolled HB 2973), 526.016, 526.041

Stats. Implemented: ORS 477.013, 477.515, 477.562 (as amended by ch. 213, OL 2007, Enrolled HB 2973)

Hist.: DOF 4-2007, f. 12-31-07, cert. ef. 1-1-08

629-048-0500
Enforcement

(1) Violations of the smoke management plan may be enforced either as violations of the fire prevention statutes and rules (ORS 477.980 to 477.993) or as violations of the forest practice rules (ORS 527.680 to 527.690 and 527.990 to 527.992).

(2)(a) When, in the judgment of the forester, a violation is related primarily to an act or omission that has caused or might cause fire to burn uncontrolled, enforcement under the provisions of the fire prevention statutes and rules is appropriate.

(b) When, in the judgment of the forester, a violation is related primarily to an act or omission that has caused or might cause deterioration of air quality, enforcement under the provisions of the Forest Practices Act and rules (specifically, OAR 629-615-0300) is appropriate.

(3) Enforceable standards within the smoke management plan include requirements to:

(a) Register burns prior to ignition (OAR 629-048-0230(4) and 629-048-0300);

(b) Obtain approval for and follow a burn plan (OAR 629-048-0230(2) and 629-043-0026(4);

(c) Obtain a burn permit and comply with any conditions included therein (OAR 629-048-0230(5) and ORS 477.515);

(d) Obtain and comply with daily smoke management instructions and updates (OAR 629-048-0230(6);

(e) Comply with restrictions regarding use of polyethylene covers on burn piles (OAR 629-048-0210(4);

(f) Cease burning when directed by the forester (OAR 629-048-0100(4) and 629-048-0230(10);

(g) Report accomplishments (OAR 629-048-0320); and

(h) Pay fees (OAR 629-048-0310).

(4) Section 118 of the federal Clean Air Act provides for enforcement of state air quality regulations against federal agencies. It will be the policy of the Board of Forestry, in the event of a failure of a federal land management agency to comply with the smoke management plan, that the forester will first inform the responsible agency of the failure and coordinate efforts to ensure timely correction of any breakdowns in procedure that may have resulted in the failure. However, if this method does not appear in the judgment of the State Forester to result in necessary correction of procedures, or under other circumstances that in the judgment of the State Forester warrant further action, enforcement action may be taken as with any other responsible party.

Stat. Auth: ORS 477.013, 477.562 (as amended by ch. 213, OL 2007, Enrolled HB 2973), 526.016, 526.041

Stats. Implemented: ORS 477.013, 477.515, 477.562 (as amended by ch. 213, OL 2007, Enrolled HB 2973)

Hist.: DOF 4-2007, f. 12-31-07, cert. ef. 1-1-08

NOTE: Below are proposed amendments to the mercury rule associated with this proposed rulemaking. When this rulemaking was originally proposed on December 1, 2008, these provisions of the mercury rules were found in sections OAR 340-228-0671 and 340-228-0673. On December 12, 2008, major revisions were made to the mercury rules (unrelated to this rulemaking) which changed these rule sections. As a result, 340-228-0671 and 340-228-0673 became 340-228-0606 and 340-228-0637, respectively.

The **amendments originally proposed to section OAR 340-228-0671 are now being proposed for adoption as OAR 340-228-0606.** The proposed changes in redline/strikeout are the exact same changes as originally proposed.

The **amendments to OAR 340-228-0673 are not being proposed for adoption.** The December 12, 2008 mercury rule revisions cited above adopted alternative language, making the proposed changes to 340-228-0673 by this rulemaking no longer necessary. For this reason, only subsection 340-228-0637(4)(a) is listed below, which contains the alternate language that has already been adopted. This is being provided for informational purposes only.

Proposed for rule adoption
Amendments to Division 228

DIVISION 228
Mercury Rules for Coal-Fired Power Plants
Utility Mercury Rule
General Provisions

340-228-0606
Hg Emission Standards

(1) Mercury reduction plan. By July 1, 2009 or 1-year prior to commencement of commercial operation, whichever is later, the owner or operator of each coal-fired electric generating unit must develop and submit for Department approval a mercury reduction plan for each coal-fired electric generating unit. The plan must propose a control strategy for mercury that is most likely to result in the capture of at least 90 percent of the mercury emitted from the unit or that will limit mercury emissions to 0.60 pounds per trillion BTU of heat input. The owner or operator must demonstrate that the plan reflects technology that could reasonably be expected to meet the limits in this section if the technology operates as anticipated by the manufacturer. The plan must provide a timeframe for implementation of the selected control strategy including major milestones, installation and operation requirements, and work practice standards for the selected technology. The owner and operator of the coal-fired electric generating unit may proceed with the plan within 60 days of submittal unless, within the 60 day period, the Department notifies the owner or operator of the coal-fired electric generating unit that the plan must be revised.
(2) Mercury emission standards. On and after July 1, 2012 or at commencement of commercial startup, whichever is later, except as allowed under section (3) of this rule, each coal-fired electric generating unit must have implemented the approved control strategy projected to achieve at least 90 percent mercury capture or that will limit mercury emissions to 0.60 pounds per trillion BTU of heat input.

(3) Compliance extension. Up to a ~~1~~2-year extension of the requirement to implement the approved control strategy may be granted by the Department if the owner or operator of a coal-fired electric generating unit demonstrates that it is not practical to install mercury control equipment by July 1, 2012 due to supply limitations, ESP fly ash contamination, or other extenuating circumstances that are beyond the control of the owner or operator.
(4) Compliance demonstration. Commencing in July 2013 or 12 months after commercial startup or 12 months after expiration of the extension granted under section (3) of this rule, whichever is later, each coal-fired electric generating unit must thereafter demonstrate compliance with one of the standards in subsections (4)(a) or (4)(b) of this rule for each compliance period, except as allowed under sections (5) and (6) of this rule. A compliance period consists of twelve months. Each month commencing with June 2013 or the twelfth month after commencement of commercial operation or twelfth month after expiration of the extension granted under section (3) of this rule, whichever is later, is the end of a compliance period consisting of that month and the previous 11 months.
(a) A mercury emission standard of 0.60 pounds per trillion BTU of heat input calculated by dividing the Hg mass emissions determined using a mercury CEMS or sorbent trap monitoring system by heat input as determined according to 40 CFR part 75, appendix F (procedure 5); or
(b) A minimum 90 percent capture of inlet mercury determined as follows:
(A) Inlet mercury must be determined as specified in subparagraph (4)(b)(A)(i) or (4)(b)(A)(ii) of this rule:
(i) Coal sampling and analysis. To demonstrate compliance by coal sampling and analysis, the owner or operator of a coal-fired electric generating unit must test its coal for mercury consistent with a coal sampling and analysis plan. The coal sampling and analysis plan must be consistent with the requirements of 40 CFR 63.7521.
(ii) Hg mass emissions prior to any control device(s). To demonstrate compliance by measuring Hg mass emissions, the owner or operator of a coal-fired electric generating unit must measure mercury emissions prior to any control device(s) using a Hg CEMS or sorbent trap.
(B) The mercury capture efficiency must be calculated using the Hg emissions determined using a mercury CEMS or sorbent trap monitoring system and the inlet mercury determined using the coal mercury content data obtained in accordance with subparagraph (4)(b)(A)(i) of this rule or the measured inlet mercury data obtained in accordance with subparagraph (4)(b)(A)(ii) of this rule and a calculation methodology approved by the Department.
(5) Temporary compliance alternative. If the owner or operator of a coal-fired electric generating unit properly implements the approved control strategy and the strategy fails to achieve at least 90 percent mercury capture or limit mercury emissions to 0.60 pounds per trillion BTU of heat input:
(a) The owner or operator must notify the Department of the failure within 30 days of the end of the initial compliance period; and
(b) The owner or operator must file an application with the Department for a permit or permit modification in accordance with OAR 340 division 216 to establish a temporary alternative mercury emission limit. The application must be filed within 60 days of the end of the initial compliance period, and must include a continual program of mercury control progression able to achieve at least 90 percent mercury capture or to limit mercury emissions to 0.60 pounds per trillion BTU of heat input and all monitoring and operating data for the coal-fired electric generating unit.
(c) The Department may establish a temporary alternative mercury emission limit only if the owner or operator applies for a permit or permit modification, that includes a control strategy that

the Department determines constitutes a continual program of mercury control progression able to achieve at least 90 percent mercury capture or to limit mercury emissions to 0.60 pounds per trillion BTU of heat input.
(d) Establishment of a temporary alternative mercury emission limit requires public notice in accordance with OAR 340 division 209 for Category III permit actions
(e) If the owner or operator files an application under subsection (5)(b) of this rule, the coal-fired electric generating unit must operate according to the temporary alternative mercury emission limit proposed in the permit or permit modification application until the Department either denies the application or issues the permit or permit modification. Compliance with the proposed temporary alternative mercury emission limit prior to final Department action on the application shall constitute compliance with the limits in section (2) of this rule.
(f) A temporary alternative mercury emission limit established in a permit expires July 1, 201~~5~~6 or within 2 years of commencement of commercial operation, whichever is later.
(6) Permanent compliance alternative. If the owner or operator of a coal-fired electric generating unit is unable to achieve at least 90 percent mercury capture or an emission level of 0.60 pounds per trillion BTU of heat input by July 1, 201~~5~~6 or within 2 years of commencement of commercial operation, whichever is later, despite properly implementing the continual program of mercury progression required in section (5) of this rule:
(a) The owner or operator of the coal-fired electric generating unit may file an application with the Department for a permit modification in accordance with OAR 340 division 216 to establish a permanent alternative mercury emission limit that comes as near as technically possible to achieving 90 percent mercury capture or an emission level of 0.60 pounds per trillion BTU of heat input.
(b) The Department may establish a permanent alternative mercury emission limit only if the owner or operator applies for a permit modification, that proposes an alternative mercury emission limit that the Department determines comes as near as technically possible to achieving 90 percent mercury capture or an emission level of 0.60 pounds per trillion BTU of heat input.
(c) Establishment of a permanent alternative mercury emission limit requires public notice in accordance with OAR 340 division 209 for Category IV permit actions.
(d) If the owner or operator files an application under subsection (6)(a) of this rule, the coal-fired electric generating unit must operate according to the permanent alternative mercury emission limit proposed in the permit modification application until the Department either denies the application or modifies the permit. Compliance with the proposed permanent alternative mercury emission limit prior to final Department action on the application shall constitute compliance with the limits in section (4) of this rule.
(7) Emission Caps. Beginning in calendar year 2018, the following coal-fired electric generating unit specific emission caps shall apply.
(a) Existing Boardman coal-fired electric generating unit cap. The existing coal-fired electric generating unit in Boardman shall emit no more than:
(A) 60 pounds of mercury in any calendar year in which there are no new coal-fired electric generating units operated in Oregon.
(B) 35 pounds of mercury in any calendar year in which there are new coal-fired electric generating units operated in Oregon.
(b) New coal-fired electric generating unit cap:
(A) New coal-fired electric generating units, in aggregate, shall emit no more than:

(i) 25 pounds of mercury in any calendar year in which the existing coal-fired electric generating unit in Boardman is operated.
(ii) 60 pounds of mercury in any calendar year in which the existing coal-fired electric generating unit in Boardman is not operated.
(B) The owner or operator of each new coal-fired electric generating unit must submit to the Department a request, in a format specified by the Department, to receive a portion of the new coal-fired electric generating unit cap. The request may not be submitted until the new coal-fired electric generating unit has received its Site Certification from the Facility Siting Council, or if the new coal-fired electric generating unit is not required to obtain a Site Certificate, all governmental approvals necessary to commence construction.
(C) The Department will allocate the new coal-fired electric generating unit cap in order of receipt of requests and, once allocated, the new coal-fired electric generating unit shall be entitled to receive an equal allocation in future years unless the new coal-fired electric generating unit permanently ceases operations.
(D) Each individual new coal-fired electric generating unit shall emit no more than the lesser of:
(i) An amount of mercury determined by multiplying the design heat input in TBtu of such coal-fired electric generating unit by 0.60 pounds per TBtu rounded to the nearest pound as appropriate, or
(ii) The amount of the emission cap under (7)(b) less the amount of the emission cap under (7)(b) that has been allocated to other new coal-fired electric generating units.
(c) Compliance demonstration. Each coal-fired electric generating unit must demonstrate compliance with the applicable calendar year emission cap in subsection (7)(a) or (7)(b) of this rule using a mercury CEMS or sorbent trap monitoring system.
(5) Recordkeeping and reporting requirements.
(a) Unless otherwise provided, the owners and operators of the Hg Budget source and each Hg Budget unit at the source must keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Department or the Administrator.
(A) The certificate of representation under OAR 340-228-0618 for the Hg designated representative for the source and each Hg Budget unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents are retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation under OAR 340-228-0618 changing the Hg designated representative.
(B) All emissions monitoring information, in accordance with OAR 340-228-0658 through 0670, provided that to the extent that OAR 340-228-0658 through 0670 provides for a 3-year period for recordkeeping, the 3-year period applies.
(C) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Hg Budget Trading Program.
(D) Copies of all documents used to complete a Hg Budget permit application and any other submission under the Hg Budget Trading Program or to demonstrate compliance with the requirements of the Hg Budget Trading Program.
(b) The Hg designated representative of a Hg Budget source and each Hg Budget unit at the source must submit the reports required under the Hg Budget Trading Program, including those under OAR 340-228-0658 through 0670.
(6) Liability.

(a) Each Hg Budget source and each Hg Budget unit must meet the requirements of the Hg Budget Trading Program for the control periods of 2010 through 2017.
(b) Any provision of the Hg Budget Trading Program that applies to a Hg Budget source or the Hg designated representative of a Hg Budget source also applies to the owners and operators of such source and of the Hg Budget units at the source.
(c) Any provision of the Hg Budget Trading Program that applies to a Hg Budget unit or the Hg designated representative of a Hg Budget unit also applies to the owners and operators of such unit.
(7) Effect on other authorities. No provision of the Hg Budget Trading Program, a Hg Budget permit application, a Hg Budget permit, or an exemption under OAR 340-228-0605 must be construed as exempting or excluding the owners and operators, and the Hg designated representative, of a Hg Budget source or Hg Budget unit from compliance with any other provision of the applicable, approved State implementation plan, a Federally enforceable permit, or the CAA.
Stat. Auth.: ORS 468.020 & 468A.310
Stats. Implemented: ORS 468A.025
Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06; DEQ 15-2008, f. & cert. ef 12-31-08

Rule amendments as originally proposed on December 1, 2008

DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION 228
Mercury Rules for Coal-Fired Power Plants
Utility Mercury Rule
Hg Emission Standards and Emission Caps

340-228-0671[1]
Emission Standards
(1) Mercury reduction plan. By July 1, 2009 or 1-year prior to commencement of commercial operation, whichever is later, the owner or operator of each Hg Budget unit must develop and submit for Department approval a mercury reduction plan for each Hg Budget unit. The plan must propose a control strategy for mercury that is most likely to result in the capture of at least 90 percent of the mercury emitted from the unit or that will limit mercury emissions to 0.60 pounds per trillion BTU of heat input. The owner or operator must demonstrate that the plan reflects technology that could reasonably be expected to meet the limits in this section if the technology operates as anticipated by the manufacturer. The plan must provide a timeframe for implementation of the selected control strategy including major milestones, installation and operation requirements, and work practice standards for the selected technology. The owner and operator of the Hg Budget unit may proceed with the plan within 60 days of submittal unless,

[1] In a related rulemaking already in progress, the Department has proposed to eliminate this rule and move its requirements to OAR 340-228-0606. That rulemaking is scheduled to be presented to the Environmental Quality Commission (EQC) on December 11 or 12, 2008. If the EQC approves the move, these proposed changes would be made instead to OAR 340-228-0606.

within the 60 day period, the Department notifies the owner or operator of the Hg Budget unit that the plan must be revised.
(2) Mercury emission standards. On and after July 1, 2012 or at commencement of commercial startup, whichever is later, except as allowed under section (3) of this rule, each Hg Budget unit must have implemented the approved control strategy projected to achieve at least 90 percent mercury capture or that will limit mercury emissions to 0.60 pounds per trillion BTU of heat input.
(3) Compliance extension. Up to a ~~1~~2-year extension of the requirement to implement the approved control strategy may be granted by the Department if the owner or operator of a Hg Budget unit demonstrates that it is not practical to install mercury control equipment by July 1, 2012 due to supply limitations, ESP fly ash contamination, or other extenuating circumstances that are beyond the control of the owner or operator.
(4) Compliance demonstration. Commencing in July 2013 or 12 months after commercial startup or 12 months after expiration of the extension granted under section (3) of this rule, whichever is later, each Hg Budget unit must thereafter demonstrate compliance with one of the standards in subsections (4)(a) or (4)(b) of this rule for each compliance period, except as allowed under sections (5) and (6) of this rule. A compliance period consists of twelve months. Each month commencing with June 2013 or the twelfth month after commencement of commercial operation or twelfth month after expiration of the extension granted under section (3) of this rule, whichever is later, is the end of a compliance period consisting of that month and the previous 11 months.
(a) A mercury emission standard of 0.60 pounds per trillion BTU of heat input calculated by dividing the Hg emissions determined using a mercury CEMS or sorbent trap monitoring system by heat input as determined according to OAR 340-228-0674; or
(b) A minimum 90-percent capture of inlet mercury determined as follows:
(A) Inlet mercury must be determined as follows:
(i) The owner or operator must test coal for mercury consistent with a coal sampling and analysis plan prepared according to OAR 340-228-0676; or
(ii) The owner or operator must measure mercury emissions prior to any control device(s) according to OAR 340-228-0678.
(B) The mercury capture efficiency must be calculated using the Hg emissions determined using a mercury CEMS or sorbent trap monitoring system and the inlet mercury determined using the coal mercury content data obtained in accordance with subparagraph (1)(b)(A)(i) of this rule or the measured inlet mercury data obtained in accordance with subparagraph (1)(b)(A)(ii) of this rule and a calculation methodology approved by the Department.
(5) Temporary compliance alternative. If the owner or operator of a Hg Budget unit properly implements the approved control strategy and the strategy fails to achieve at least 90 percent mercury capture or limit mercury emissions to 0.60 pounds per trillion BTU of heat input:
(a) The owner or operator must notify the Department of the failure within 30 days of the end of the initial compliance period; and
(b) The owner or operator must file an application with the Department for a permit or permit modification in accordance with OAR 340 division 216 to establish a temporary alternative mercury emission limit. The application must be filed within 60 days of the end of the initial compliance period, and must include a continual program of mercury control progression able to achieve at least 90 percent mercury capture or to limit mercury emissions to 0.60 pounds per trillion BTU of heat input and all monitoring and operating data for the Hg Budget unit.
(c) The Department may establish a temporary alternative mercury emission limit only if the owner or operator applies for a permit or permit modification, that includes a control strategy that

the Department determines constitutes a continual program of mercury control progression able to achieve at least 90 percent mercury capture or to limit mercury emissions to 0.60 pounds per trillion BTU of heat input.
(d) Establishment of a temporary alternative mercury emission limit requires public notice in accordance with OAR 340 division 209 for Category III permit actions
(e) If the owner or operator files an application under subsection (5)(b) of this rule, the Hg Budget unit must operate according to the temporary alternative mercury emission limit proposed in the permit or permit modification application until the Department either denies the application or issues the permit or permit modification. Compliance with the proposed temporary alternative mercury emission limit prior to final Department action on the application shall constitute compliance with the limits in section (4) of this rule.
(f) A temporary alternative mercury emission limit established in a permit expires July 1, 2015~~5~~6 or within 2 years of commencement of commercial operation, whichever is later.
(6) Permanent compliance alternative. If the owner or operator of a Hg Budget unit is unable to achieve at least 90 percent mercury capture or an emission level of 0.60 pounds per trillion BTU of heat input by July 1, 2015~~5~~6 or within 2 years of commencement of commercial operation, whichever is later, despite properly implementing the continual program of mercury progression required in section (5) of this rule:
(a) The owner or operator of the Hg Budget unit may file an application with the Department for a permit modification in accordance with OAR 340 division 216 to establish a permanent alternative mercury emission limit that comes as near as technically possible to achieving 90 percent mercury capture or an emission level of 0.60 pounds per trillion BTU of heat input.
(b) The Department may establish a permanent alternative mercury emission limit only if the owner or operator applies for a permit modification, that proposes an alternative mercury emission limit that the Department determines comes as near as technically possible to achieving 90 percent mercury capture or an emission level of 0.60 pounds per trillion BTU of heat input.
(c) Establishment of a permanent alternative mercury emission limit requires public notice in accordance with OAR 340 division 209 for Category IV permit actions.
(d) If the owner or operator files an application under subsection (6)(a) of this rule, the Hg Budget unit must operate according to the permanent alternative mercury emission limit proposed in the permit modification application until the Department either denies the application or modifies the permit. Compliance with the proposed permanent alternative mercury emission limit prior to final Department action on the application shall constitute compliance with the limits in section (4) of this rule.
Stat. Auth.: ORS 468.020 & 468A.310
Stats. Implemented: ORS 468A.025
Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06

NOTE: the change highlighted below in OAR 340-228-0673(3)(b) is no longer needed, based on alternate language that was adopted into OAR 340-228-0637(4)(a) on December 12, 2008.

340-228-0673[2]

Monitoring Requirements for the Hg Emission Standards

(1) Requirements for installation, certification, and data accounting. The owners and operators of a Hg Budget unit must:

(a) Install all applicable monitoring systems required under OAR 340-228-0674 through 0678 for monitoring individual unit heat input and inlet Hg.

(b) Successfully complete certification tests under OAR 340-228-0660 and meet all other requirements of this rule, OAR 340-228-0660 through 0670, and 40 CFR part 75 subpart I for the monitoring systems under subsection (1)(a) of this rule.

(c) Record, report, and quality-assure the data from the monitoring systems under subsection (1)(a) of this rule.

(d) Reports and petitions required in subsections (1)(b) and (1)(c) of this rule must be submitted to the Department, not to the Administrator.

(2) Compliance deadlines. The owner or operator must meet the monitoring system certification and other requirements of subsections (1)(a) and(b) of this rule on or before the following dates. The owner or operator must record, report, and quality-assure the data from the monitoring systems under subsection (1)(a) of this rule on and after the following dates.

(a) Heat input. For monitoring systems used to monitor heat input in accordance with OAR 340-228-0671(4)(a), if applicable, by the later of the following dates:

(A) July 1, 2012 or the date established under OAR 340-228-0671(3); or

(B) The date on which the unit commences commercial operation.

(b) Inlet Hg. If required to perform coal sampling and analysis in accordance with OAR 340-228-0671(4)(b)(A)(i) and 340-228-0676 or measure Hg emission prior to any control device(s) in accordance with OAR 340-228-0671(4)(b)(A)(ii) and 340-228-0678, if applicable, by the later of the following dates:

(A) July 1, 2012 or the date established under OAR 340-228-0671(3); or

(B) The date on which the unit commences commercial operation.

(3) Reporting data.

(a) The owner or operator of a Hg Budget unit that does not meet the applicable compliance date set forth in section(2) of this rule for any monitoring system under subsection(1)(a) of this rule must, for each monitoring system, determine, record, and report maximum potential(or, as appropriate, minimum potential) values for heat input, inlet Hg, and any other parameters required to determine heat input and Hg inlet in accordance with OAR 340-228-0674 through 0678.

(b) On and after July 1, 2013 or 12 months after commercial startup or 12 months after expiration of the extension granted under OAR 340-228-0671(3)~~January 1, 2018~~, the owner or operator of a Hg Budget unit must submit to the Department quarterly reports of monthly and 12-month rolling average mercury emissions per trillion Btu of energy input and/or mercury capture efficiency, for each month in the calendar quarter. *

(4) Prohibitions. No owner or operator of a Hg Budget unit shall disrupt any emission monitoring method, and thereby avoid monitoring and recording heat input, and/or inlet Hg, except for

[2] In a related rulemaking already in progress, the Department has proposed to eliminate this rule and move its requirements to OAR 340-228-0609. That rulemaking is scheduled to be presented to the Environmental Quality Commission (EQC) on December 11 or 12, 2008. If the EQC approves the move, these proposed changes would be made instead to OAR 340-228-0609,

periods of recertification or periods when calibration, quality assurance testing, or maintenance is performed in accordance with the applicable provisions of this rule, OAR 340-228-0660 through 0670, and 40 CFR part 75 subpart I.
Stat. Auth.: ORS 468.020 & 468A.310
Stats. Implemented: ORS 468A.025
Hist.: DEQ 13-2006, f. & cert. ef. 12-22-06; DEQ 8-2007, f. & cert. ef. 11-8-07

***replaced by**
340-228-0637
Reporting
(4)(a): Submission. Quarterly reports must be submitted, beginning with the calendar quarter containing the compliance date in OAR 340-228-0609(2). The owner or operator must report the data and information in this subsection and the applicable compliance certification information in subsection (4)(b) of this rule to the Department quarterly. Each report must be submitted to the Department within 30 days following the end of each calendar quarter. Each report must include the date of report generation and the following information for each affected unit or group of units monitored at a common stack.

2008 Oregon Regional Haze Plan

Executive Summary

Regional haze is air pollution that travels long distances and reduces visibility in scenic areas. The haze that affects visibility in Oregon comes from motor vehicles, power plants, industrial and manufacturing processes, forestry, agricultural and other open burning, as well as natural sources such as wildfire and windblown dust. The federal Clean Air Act contains requirements to protect and improve visibility in national parks and wilderness areas in the country. In 1977 Congress designated certain national parks and wilderness areas as "Class 1 areas," where visibility was identified as an important value. Currently there are 156 Class 1 areas in the country. Oregon has 12 Class 1 areas, including Crater Lake National Park and 11 wilderness areas.

To address the problem of regional haze the Environmental Protection Agency (EPA) adopted the *Regional Haze Rule* in 1999. This rule requires states to adopt regional haze plans to incrementally improve visibility in all Class 1 areas, including Oregon, over the next 60 years. It focuses on improving Class 1 area visibility on the haziest days (the worst 20 percent) and ensuring no degradation on the clearest days (the best 20 percent). The first regional haze plan must include "Reasonable Progress Goals" (RPG) for each Class I area, for the year 2018, also known as the "2018 milestone year". RPGs are interim goals that represent incremental visibility improvements, based on a calculation of a "uniform rate of progress" (URP). The first regional haze plan describes the progress anticipated in reaching the 2018 URP milestone for each Class I area, for the 20 percent worst and best days, based on projections of emission reductions and visibility improvements from regional haze control strategies during this first planning period.

Best Available Retrofit Technology (BART) is a key part of the federal Regional Haze Rule, and the central focus of regional haze plans that states are developing. It applies to certain older industrial facilities that began operating before 1977 when federal Prevention of Significant Deterioration (PSD) rules were adopted to protect visibility in Class I areas when permitting new industrial facilities. Under BART, these older facilities must now evaluate their visibility impact in Class I areas, and if found to be significant, conduct an evaluation of new pollution controls, and install them within five years.

This document is Oregon's Regional Haze Plan to meet this federal rule. The highlights of the plan are as follows:

- History and regulatory background of the Regional Haze Rule, and geographical description of each of Oregon's 12 Class I Areas. See Chapters 1 through 5.

- A comprehensive review and technical assessment of visibility conditions in each of Oregon's 12 Class I areas, showing major pollutants and source categories in Oregon

and other states causing haze, and a projection of visibility by a required "milestone" date of 2018. See Chapters 6 through 9.

- DEQ's evaluation of ten "BART-eligible" sources, and proposal to require retrofit controls on the PGE Boardman power plant, and reduce emissions at four other facilities to below the visibility impact level considered to be significant. See Chapter 10.

- "Reasonable Progress Goals" established by DEQ for Oregon's 12 Class I area, which show improvements in visibility for the haziest or worst days (but less than the first URP milestone for 2018) and no visibility degradation for the clearest or best days. See Chapter 11.

- A "Long-Term Strategy" that describes what actions DEQ will take to address major sources of haze over the next 10 years, and commitments for future plan updates and revisions.

- Summary of the efforts by DEQ to consult and coordinate with other States, Tribes, and Federal Land Managers on the regional haze strategies contained in this plan. See Chapter 13.

The major elements of this plan are the BART evaluation, Reasonable Progress Goals, and the Long-Term Strategy.

Best Available Retrofit Technology evaluation

The primary outcome of the BART evaluation in Chapter 10 was a determination that the PGE Boardman power plant be required to install pollution controls. DEQ evaluated 10 BART-eligible sources, and found that the PGE Boardman plant had by far the greatest visibility impact in Oregon's Class I areas, and in several of Washington's Class I areas as well. DEQ identified a two-step process for installing controls at this facility. Phase one requires controls for sulfur dioxide (SO_2) and oxides of nitrogen (NO_x) that would reduce these emissions by about 66 percent by 2014, at a cost of about $280 million. Phase one meets the minimum requirements for BART. Phase two requires more advanced controls for NO_x that would reduce emissions by about 81 percent by 2017, at an additional cost of $191 million. Phase two goes "beyond BART" to achieve additional visibility improvement and to meet regional haze "reasonable progress" requirements (see below). The total emissions reduced from both phases is approximately 20,800 tons per year, which will provide significant visibility benefits in 14 Class I areas in Oregon and Washington, as well as the Columbia Gorge National Scenic Area.

Also as part of the BART evaluation, DEQ found four other BART-eligible sources that had visibility impacts that we just over the "significance" level used for the modeling protocol for BART sources. DEQ determined that these sources could take a federally enforceable permit limit to lower their emissions below the significance level. Sources that take an enforceable permit limit are not subject to further evaluation for BART controls, however as BART-eligible

sources, they can be re-evaluated as part of a more comprehensive review of industrial emissions under the reasonable progress requirements for making visibility improvements. This re-evaluation of all BART-eligible sources is part of the Long-Term Strategy described below.

Reasonable Progress Goals

In establishing RPGs for each Class I area, DEQ relied upon emission projections and regional modeling work conducted by the Western Regional Air Partnership (WRAP). The WRAP *Technical Support System* or TSS website provided considerable technical information in determining the RPGs, and is referenced in the Appendices section of the plan. The RPGs described in Chapter 11 represent future visibility conditions in Oregon's Class I areas in 2018, based on the URP calculated for each Class I area (see Chapter 6) that represents a "presumptive goal" for the first regional haze plan. In cases where the RPGs do not meet the URP goal for 2018, States are required to explain the reasons for the slower progress, additional controls that were considered for this first plan, and what future actions that will be taken to ensure the 60-year objective of the Regional Haze Rule will be met.

While the RPGs for Oregon's Class I areas meet the requirement for no degradation of the clearest or best days, they do show a slower rate of progress for the haziest or worst visibility days, and do not meet the 2018 URP milestones in most areas. The reasons for this, as described in Chapter 11, are summarized below:

- DEQ's analysis of emissions data, source apportionment, and modeling results strongly supports the finding that the contribution of natural sources, such as wildfire and windblown dust, is the primary reason for slower progress in achieving the 2018 milestone in Oregon's Class I areas.

- Similar to the contribution of natural sources, DEQ believes marine vessel emissions are also affecting progress in making visibility improvements. These emissions are estimated to be currently half of the statewide SO_2 emissions and one-third the statewide NO_x emissions. This contribution to visibility impairment is significant, especially in Western Oregon Class I areas. Current DEQ authority to regulate offshore shipping emissions is limited. The plan identifies future work that is needed to address this significant source of emissions.

- DEQ's analysis of projected visibility improvements from sulfate and nitrate impacts in Oregon Class I areas shows about a 20 percent reduction in these pollutants by the 2018 milestone. Given the strong association of these pollutant species to anthropogenic sources, DEQ believes this is a more realistic indicator of reasonable progress. If natural sources are excluded, this 20 percent reduction in sulfates and nitrates corresponds to the same percent reduction that is represented by the 2018 milestone.

- Mobile sources (mostly cars and trucks) are the largest anthropogenic source of emissions in Oregon. By 2018 more than half of these emissions are projected to decrease due to numerous federal emission standards that are already "on the books", as well as programs

in Oregon that will reduce these emissions. DEQ believes this major reduction supports the demonstration that RPGs are reasonable based on the considerable progress being made reducing this large source of emissions.

- DEQ conducted a "Four-Factor Analysis" as required under the Regional Haze rule to evaluate other large sources of emissions (non-BART sources) that could be reduced or controlled to improve visibility by 2018. Using this analysis DEQ did not find any controls that were reasonable to pursue at this time. However, additional NO_x controls required under the Phase 2 requirements for the PGE Boardman Power Plant will result in an additional reduction of approximately 4,000 tons NO_x, and significant visibility improvements, when installed in 2017. Based on the preliminary information obtained from the four-factor analysis, DEQ has proposed in the Long-Term Strategy of the plan to further evaluate non-BART industrial sources for possible new controls in the next five years to make additional visibility improvements by 2018.

Long-Term Strategy

Chapter 12 of this plan is the Long-Term Strategy, which describes on-going rules and programs that are expected to provide visibility improvements, and identifies new measures that DEQ has committed to evaluate by the next plan update in 2013. The two primary commitments are to evaluate possible visibility improvements from non-BART industrial sources not included in the BART review, and Class I area smoke impacts from forestry burning. These represent the two greatest areas where potentially significant visibility benefits could be realized.

The evaluation of non-BART sources will include a re-evaluation of the BART-eligible sources. Starting in 2009, DEQ will develop a comprehensive guidance document through a stakeholder process for evaluating visibility impacts from non-BART industrial sources. A DEQ report will be prepared by 2013 that summarizes: (1) the development of this guidance; (2) results of applying the guidance to non-BART sources and BART-eligible sources; (3) any potential new controls for sources; (4) proposed rulemaking needed and schedule for adopting new rules; (5) estimated timeline for installing any new controls; and (6) estimate of the expected visibility benefits.

The evaluation of forestry burning will consist of an analysis of smoke impacts from forestry burning on visibility, for the haziest or worst days at each Class I area in Oregon. Where this burning it is found to cause significant visibility impacts, DEQ plans to work with state forestry and federal land managers to identify new smoke management controls to protect visibility.

Other new measures in the Long-Term Strategy included an evaluation of the contribution of residential open burning and rangeland burning to haze, and further assessment on the contribution of marine vessels and possible regulatory actions that could be taken.

Columbia River Gorge National Scenic Area Visibility

The Columbia River Gorge National Scenic Area was created by Congress in 1986. While it was not designated as a Class I area, it will receive significant visibility benefit under the Oregon Regional Haze Plan due to its' proximity to nearby Class I areas, such as Mt. Hood Wilderness in Oregon. The Gorge was included with other Class I areas in the visibility modeling analysis of BART sources, and the requirement for five-year updates to the Oregon Regional Haze Plan will include similar analysis and tracking of visibility improvements for the Gorge.

The National Scenic Area Act of 1986 requires the protection and enhancement of the scenic, natural, cultural, and recreational resources of the Gorge, while at the same time supporting the local economy. The Columbia River Gorge Commission (CRGC) has responsibility to administer the National Scenic Area Act. In 2001, the CRGC determined that in order to protect air quality in the Gorge, they would rely on Oregon DEQ and the Washington Southwest Clean Air Agency to develop an air quality strategy for the Scenic Area. The state agencies studied air quality and visibility and the emission sources that contribute to haze in the Gorge. Because many of the same problems that affected haze in the Gorge are the same problems that affect haze across the western region, much of the visibility efforts under the regional haze program will ultimately benefit the Gorge. Therefore, as part of the federally mandated five-year regional haze plan update, DEQ will track visibility conditions in the area and provide a separate follow up with the CRGC to provide a progress report on conditions in the Gorge. See Section 1.6.2 of this plan for more information.

NOTE: Below are two proposed changes to the Oregon Regional Haze Plan to address PGE's proposed decision points closure options, as described on page 16 of the EQC rule adoption staff report. The first change is on page 155, under Section 4.2 Summary of BART Control Determination for PGE Boardman plant. The second change is on page 202, as part of Section 12.6.1. Evaluation of Non-BART Sources and BART-eligible Sources.

added to page 155:

5. Upcoming Carbon Regulations and Requesting a Rule Change

The Department expects that state and federal regulations to reduce greenhouse gas emissions from power plants, and many other sources, will be developed in the next several years. Although it is uncertain how future greenhouse gas regulations will affect PGE Boardman, the two-phased approach to reduce haze pollution at PGE Boardman will allow some time for PGE to evaluate the cost of greenhouse gas regulation in context with costs associated with the regional haze SO_2 and NO_x controls for the Boardman facility. The Department acknowledges the combination of these costs could be significant and may require PGE to evaluate cost-benefit factors affecting the future of the Boardman facility, as part of the Oregon Public Utility Commission Integrated Resource Plan process.

Recognizing these future uncertainties, the Department has included in the Long-Term Strategy in Chapter 12 a process by which PGE could submit a written request for a rule change to the regional haze control requirements for that facility, if PGE determines that the additional impact and cost of greenhouse gas regulations will require the closure of the PGE Boardman plant and formally proposes a closure date. Although this request could be made at any time, the Department believes it would be particularly appropriate if submitted as part of Department's 2013 regional haze plan update, where it would be considered along with the Evaluation of Non-BART Sources and BART-eligible sources pursuant to Section 12.6.1. The Department recognizes that such a request could change the need for significant capital investment in regional haze pollution control equipment at Boardman and that a decision from the EQC would be needed as quickly as possible. The Department would evaluate the merits of PGE's request in consultation with EPA, and take action as appropriate upon that request as quickly as possible. The Department would also seek input from the public, stakeholders, tribal nations, and a fiscal advisory committee in making its determination. The Department would expect PGE to include an analysis of the estimated emission reductions and visibility benefits from an early closure, other controls that might be feasible and cost-effective during the interim, and further analysis comparing the emission reductions and other control options to the visibility benefits from the BART and Reasonable Progress controls required for the Boardman facility by rule. For further details, see Section 12.6.1 of the Long-Term Strategy.

added to page 202:

Process for Requesting a Rule Change to PGE Boardman Control Requirements

The Department expects that state and federal regulations to reduce greenhouse gas emissions from power plants, and many other sources, will be developed in the next several years. Although it is uncertain how future greenhouse gas regulations will affect PGE Boardman, the two-phased approach to reduce haze pollution at PGE Boardman will allow some time for PGE to evaluate the cost of greenhouse gas regulation in context with costs associated with the regional haze SO_2 and NO_x controls for the Boardman facility. The Department acknowledges the combination of these costs could be significant and may require PGE to evaluate cost-benefit factors affecting the future of the Boardman facility, as part of the Oregon Public Utility Commission Integrated Resource Plan process.

Should PGE determine that the additional impact and cost of greenhouse gas regulations will require the closure of the PGE Boardman plant, PGE may submit a written request to the Department for a rule change to the regional haze control requirements for PGE Boardman. Although this request could be made at any time, the Department believes it would be particularly appropriate in 2011 or early 2012, so that the rule change, if approved, would be made as part of the 2013 regional haze plan update, and considered along with the Evaluation of Non-BART Sources and BART-eligible sources identified above in this section. The Department recognizes that such a request could change the need for significant capital investment in regional haze pollution control equipment at Boardman and that a decision from the EQC would be needed as quickly as possible. The Department would evaluate the merits of PGE's request in consultation with EPA, and take action as appropriate upon that request as quickly as possible. The Department would also seek input from the public, stakeholders, tribal nations, and a fiscal advisory committee in making its determination. The Department would expect PGE to include an analysis of the estimated emission reductions and visibility benefits from an early closure, other controls that might be feasible and cost-effective during the interim, and further analysis comparing the emission reductions and other control options to the visibility benefits from the BART and Reasonable Progress controls required for the Boardman facility by rule.

Summary of Public Comments and Agency Responses

Adoption of 2008 Oregon Regional Haze Plan and New Controls for PGE Boardman Power Plant

Prepared by: Brian Finneran, Carrie Ann Capp, Mark Fisher, DEQ Air Quality
Date: April 27, 2009

Comment Period:	The public comment period opened on December 1, 2008, and closed at 5:00 p.m. on January 30, 2009.
Public Hearings:	DEQ held the following public hearings: • January 6, 2009, 6:00 p.m. DEQ Headquarters, Room EQC-A 811 SW 6th Avenue Portland, OR 97204 28 people attended the hearing; 11 people testified. • January 7, 2009, 6:00 p.m. Lane Regional Air Pollution Authority, LRAPA Meeting Room 1010 Main Street Springfield, OR 97474 5 people attended the hearing; 1 person testified. • January 8, 2009, 6:00 p.m. DEQ Medford Office, Conference Room, Suite 201 221 Stewart Avenue Medford, OR 97501 4 people attended the hearing; 1 person testified. • January 12, 2009, 6:00 p.m. Hermiston Conference Center, Rotary Altrusa Room 415 S. Hwy 395 Hermiston, OR 97838 28 people attended the hearing; 5 people testified. • January 13, 2009, 6:00 p.m. Columbia Gorge Community College, Lecture Hall, Building Two, Room 2.384 400 E. Scenic Drive The Dalles, OR 97058 46 people attended the hearing; 17 people testified. Total attendance at public hearings: 111 persons Total number providing verbal testimony: 45 persons
Organization of comments and responses:	Summaries of the comments received and DEQ's response are provided below. Comments are summarized by issue category. The full public record is available for review by the public at the Portland DEQ office (811 SW 6th Ave.). Copies are available upon request.

Explanation of acronyms used in this document	BART = Best Available Retrofit Technology DEQ = Department of Environmental Quality EPA = Environmental Protection Agency EQC = Environmental Quality Commission LNB/MOFA = Low NOx Burner with Modified Overfire Air (control equipment) NOx = Nitrogen oxides PGE = Portland General Electric PM10 = Particulate Matter under 10 microns in size SO_2 = Sulfur dioxide SCR = Selective Catalytic Reduction (control equipment) SNCR = Selective Non-Catalytic Reduction (control equipment) SIP = State Implementation Plan VOC = Volatile Organic Compounds WRAP = Western Regional Air Partnership

Table of Contents

Overview of Public Comment process

DEQ presented this proposed rulemaking for public comment from December 1, 2008 until January 30, 2009. Comments were received via email, in writing and orally. DEQ received the following types of comments:

- 1134 emails
- 61 written letters (by mail, at hearings, or attached to emails)
- 45 persons testified at the public hearings. (see DEQ's Hearing Officer's Report on Public Hearings, Attachment C)

Overall, DEQ received 1215 comments.

All comments received have been made part of the public record and have been reviewed by DEQ. In addition to this summary, the full record of individual comments will be made available to the Environmental Quality Commission. A copy of the full public comment record is available for the DEQ Headquarters, 811 SW 6th Ave. Portland. Photocopies of the record are available for a fee. This summary is also available on the agency website: http://www.deq.state.or.us/aq/haze/.

Overview of this Comment and Response Document

Due to the extremely large number of comments, this document has been organized in the following format. Comments and DEQ responses are divided into five sections, as described below. Within each section, public comments and DEQ responses are grouped into issue categories. There are 56 issue categories in this document. DEQ responses correspond to the order of the comments listed in each issue category. In a few cases, there may be one DEQ response addressing several comments. Due to this format of grouping comments by issue category, most comments have been summarized or paraphrased.

The following describes the five sections in this document:

1. Comments directly or indirectly related to DEQ's proposed controls or any controls (more or less stringent) related specifically to the PGE Boardman coal-fired power plant.

2. Any comments in response to PGE's proposed "decision points" closure options (mostly listed as either "for" and "against" the proposal).

3. Specific comments on the contents (analysis, data, strategies, etc.) of the proposed Oregon Regional Haze Plan. These are listed by the chapter they appear in the Plan.

4. General comments and issues indirectly related to this rulemaking, and not falling into any of the above sections. In most cases these comments are beyond the scope of this rulemaking, but DEQ responses have been provided.

5. Miscellaneous comments, similar to section 4, but beyond the scope of this rulemaking with no DEQ response. These were included as general issues and concerns that are being included for the record.

How to Find Your Comments

All comments in this document are followed by a number that represents the person or organization that provided the comment. DEQ made every effort to match the commenter to the comment.

The list of commenters begins on page 36. This list is divided into (1) written letters, sent by mail, provided at a hearing, or attached to an email; (2) verbal testimony only, provided at the public hearings; and (3) email comments only. [1]

Finally, many of the email comments were provided via a form letter. For instance, one form letter represented over 1000 comments. As a result, identical form letter emails were given one reference number. There were three form letters, and the reference numbers are highlighted in bold to reflect more than one comment.) Attachment 1 to this document provides additional names of those who commented by form letter email.

General Guide to Comments

To assist in finding your comments, the following is a summary of the different groups that commented on this rulemaking, and notes where in this document the responses can be found. This is intended to be a general guide to finding most of the comments, but not all.

1. *Comments provided by EPA, National Park Service, U.S Fish & Wildlife Service, U.S. Forest Service, and the Southwest Clean Air Agency.* These comments focused on the technical and cost aspects of DEQ's BART determination, citing reasons for slightly more stringent emission limits, including requiring Phase 2 SCR controls as BART in 2014. These comments were opposed to PGE's proposal for closure options. They also cited legal issues associated with PGE's proposal meeting all of the BART and Reasonable Progress requirements. *These comments can be found in Section 1, categories 1-9, Section 2, categories 23-25, 28-29, and Section 3, categories 31, 33-34, 38-45.*

2. *Comments from PGE, Industry, Business and Utility related groups, and Morrow County government.* These comments supported PGE' proposed closure options, and generally supported DEQ's Phase 1 controls, but opposed the Phase 2 SCR controls. They also commented on the overall cost of the proposed controls, and potential impacts on the economy. *These comments can be found in Section 1, categories 7,10-13,15, Section 2, categories 19-20, and Section 4, category 56.*

[1] Those who submitted written letters with verbal testimony or attached to an email are listed under group 1, written letters. This grouping of comments is based on ease of organization, and does not reflect any ranking or priority order based on type of comment provided to DEQ.

3. *Comments provided primarily by environmental groups.* Most of these comments focused on the stringency of the proposed controls for PGE Boardman, and the timetable for installation and compliance. They also focused on PGE Boardman's visibility impacts in Class I areas and the Columbia Gorge, and on public health and the environment in general. Some cited specific technical and cost reasons for lower emission limits from the proposed controls, including requiring SCR controls as BART in 2014. Also cited was opposition to the proposed compliance date contingency extensions for Phase 1 NOx and Mercury controls, and comments on an earlier decision point (2011) than 2012, and earlier shutdown dates, related to PGE's closure options proposal. *These comments can be found in Section 1, categories 1-7, 10-12,14, Section 2, categories 22-23, 28, and Section 3, categories 30,32,35-37, and Section 4, categories 46-51, 53-54.*

4. *Comments from the general public.* Most of these reflected the comments of the environmental groups described above. Some advocated immediately closing PGE Boardman. Many cited concerns about air quality and visibility impacts in the Columbia Gorge. A smaller segment of public comments supported PGE's proposal, reflecting those of the industry, business and utility-related groups described above. *These comments can be found in Section 1, categories 3-7,11,13-18, Section 2, categories19-23, 26, and Section 3, categories 46-49, 52, 54-55.*

5. *Comments from tribal nations.* The Umatilla, Yakama, and Nez Perce tribal nations provided comments regarding PGE Boardman's emissions, PGE's proposed closure options, DEQ's proposed controls, and the impacts on air quality, visibility, the ecosystem, public health, and acid deposition, including impacts on cultural resources. *These comments can be found in Section 1, category 17, Section 2, categories 23, 29, and Section 3, categories 47,50.*

6. *Comments from forestry-related groups, state and federal agencies, and the Oregon Forest Industries Council.* Most of these comments were directed at DEQ's planned evaluation of forestry burning under the Long-Term strategy, and regarded the terms of the criteria and methodology for conducting this evaluation. The comments urged coordination with appropriate forestry agencies, representatives and stakeholders in all steps of the evaluation, including the review of findings and any recommendations for additional smoke management controls. *These comments can be found in Section 3, category 41.*

SUMMARY OF COMMENTS AND DEQ RESPONSES

I. Comments on DEQ's Proposed Phase 1 BART and Phase 2 Reasonable Progress Controls for PGE Boardman	
1. DEQ's Phase 1 NOx emission limits	a) Many other coal plants similar to Boardman can achieve lower emission rates with the Low NOx burners being proposed by DEQ. (54) b) Lower NOx emission rates can be achieved with Ultra-Low NOx burners. (17)(54) c) Lower emission rates reaching 66% reductions (equal to a limit of 0.15 lbs/mmBtu) are reasonable and achievable. (17)(19)(72) d) BART guidelines recommend only a 30-day rolling average for utility boilers, not an annual rolling average. (50) e) The annual limit is not enforceable during the first year of operation (17) f) It is well documented that Low NOx Burners with Overfire Air (LNB/MOFA) cannot achieve the same level of emission reduction when installed on wall-fired dry bottom boilers as when they are installed on tangentially fired boilers (22) g) Add a zero to the BART limits for compliance enforcement purposes (47) h) Supports DEQ's Phase 1 NOx limit determination. (22)
Response	*a) The effectiveness of low LNB/MOFA air is dependent upon the design of the boiler and the type of coal burned. The Foster-Wheeler boiler at the Boardman plant is a wall-fired dry bottom boiler, but has unique design features that will affect the performance of low NOx burners. One significant difference between the boiler at the Boardman plant and other wall-fired dry bottom boilers are the wing walls that are installed in the upper region of the furnace zone for heat transfer. These wing walls reduce the effective mixing zone of the gases that would otherwise be available in other boilers. Since low NOx burners rely on staged combustion, reducing the mixing zone will reduce the effectiveness of the burner and overfire air system.* *b) The Ultra-Low NOx burner cited in the comments was installed on a B&W boiler (Unit 6 at the W.A. Parish facility in Texas). B&W boilers have a different internal design configuration than the Foster Wheeler boiler at the Boardman plant.* *c) DEQ did not find that a 66% reduction (at a limit of 0.15 lbs/mmBtu) was achievable. There are approximately 230 wall-fired dry bottom boilers in the US, but DEQ could only identify one other boiler that is comparable to the boiler at the Boardman plant and that has relatively new low NOx burners (Unit 1 at the Gerald Gentleman Station in Nebraska). In 2008 the annual average NOx emissions were 0.223 lb/mmBtu. Only 32 of the 230 wall-fired dry bottom boilers with low NOx burners had better emission rates in 2008. The few that had lower emissions rates have different designs or burn different types of coals than the boiler at the Boardman plant.* *d) Based on the performance of Unit 1 at the GGS facility in Nebraska, DEQ believes that a limit of 0.23 lb/mmBtu would be difficult to meet with low NOx burners on a 30-day rolling average, but should be achievable as an annual rolling average.* *e) The annual limit <u>is</u> enforceable during the first year of operation. Annual emissions will be monitored with a certified continuous emissions monitoring system (CEMS). CEMS are the most reliable compliance monitoring method available.* *f) The Department agrees that dry bottom wall-fired units with low NOx burners and overfire air will not achieve the same emission rates as tangentially fired units with low NOx burners and overfire air. The presumptive BART limits proposed by EPA are 0.23 and 0.15 lb/mmBtu heat input for dry bottom wall-fired units and tangentially fired units; respectively. Actual emissions data shows a difference between the two types of boiler designs, but there is considerable scatter in the data suggesting that the emission*

	performance is not just dependant on the general design category, but it is also dependent upon the specific design of the units within in the general categories, as discussed above. *g) The Department does not agree to add a zero to the standards because the monitoring and testing methods are generally only precise to two significant digits. Establishing limits with 2 significant digits is consistent with most New Source Performance Standards promulgated by EPA.* *h) DEQ appreciates the support for the Phase I NOx limit.*
2. DEQ's SO_2 emission limits	a) DEQ is incorrect in saying that a wet scrubber SO_2 emission rate of 0.06 lb/mmBtu is not achievable as annual average. (52) b) DEQ should require a wet scrubber. (54) c) In evaluating semi-dry scrubbers for Boardman, DEQ should have looked at the Rawhide plant in Colorado and Stanton #10 plant in North Dakota, which can achieve .05 -.08 lb/mmBtu on an annual average. d) Regardless of whether wet or dry scrubbers are required, Boardman should be able to meet 0.07 lb/mmBtu on a 30-day rolling average rather than the 0.12 lb/mmBtu proposed by DEQ. (52) e) DEQ should have considered Eastern U.S. retrofits. (47) f) The SO_2 controls proposed by DEQ should be able to achieve over a 90% reduction, rather than 80% that DEQ cites. (17)(21)(54)(72) g) The SO_2 BART limit should be 0.03 lb/mmBtu. (17) h) Add a zero to the BART limits for compliance enforcement purposes (47) i) Supports DEQ's SO_2 BART limit determination. (22)
Response	*a) The control effectiveness of the wet scrubber that DEQ used in its BART analysis was based on actual emissions representative of the best performing systems in the U.S, taking into consideration normal fluctuations in emissions. For example, unit BW22 at the Centralia Plant in Washington had an annual average emission rate of 0.036 lb/mmBtu in 2008. However, when the 30-day rolling averages are evaluated, the 95% confidence level is about 0.1 lb/mmBtu. Some of the difference between the annual and short term emission rate may be due to start-up or shutdown emissions, but* ***DEQ believes it is important to base the control effectiveness for the BART analysis on emission limits that can be achieved in practice****. Based on the data, DEQ believes that a control effectiveness of 0.07 lb/mmBtu is appropriate.* *b) DEQ does not agree that a wet scrubber should be required for BART. DEQ agrees that a wet scrubber can achieve lower emission rates than a dry scrubber, but the two control technologies produce about the same visibility protection. DEQ used an emission rate of 0.07 lb/mmBtu for the wet scrubber and 0.12 lb/mmBtu for the dry scrubber in the BART analysis. Even though a wet scrubber can achieve lower emission rates, the wet scrubber does not provide more visibility improvement than a dry scrubber because of the plume characteristics (e.g., wet plume with much lower temperatures) and the wet scrubber is $135 million dollars more than a dry scrubber. Therefore, DEQ determined that BART is a dry scrubber rather than a wet scrubber.* *c) Stanton #10 in North Dakota is only about 100 MW, and the Rawhide Unit 101 in Colorado is about 280 MW, which are both much smaller than the Boardman plant at about 600 MW. The control effectiveness of the dry scrubber that DEQ used in its BART analysis was based on the performance of emission units similar to the boiler at the Boardman plant. Although the SO_2 controls are less sensitive to boiler design, the type of coal and the size of the unit can have significant effects on the control effectiveness. Analysis of existing dry scrubber systems indicates that smaller electric generating units generally are capable of achieving lower emission rates than larger units probably because there is less stack gas to treat in the scrubber. In addition, when a detailed analysis of the emissions data is conducted, the emission levels that*

	can be achieved for compliance purposes are higher than the annual average emission rates recommended in the comments. *d) In terms of meeting 0.07 lb/mmBtu on a 30-day rolling average with either a wet or dry scrubber, DEQ's response in (b) above describes why a dry scrubber was selected. DEQ's responses in (c) and (e) describe why the 0.12 lb/mmBtu emission rate was selected.* *e) DEQ has considered Eastern U.S. retrofits. In the U.S., there are 51 coal-fired electric generating units with dry scrubbers. Of these, more than half had annual average emission rates greater than 0.12 lb/mmBtu in 2008. Of the ones that had lower emission rates than 0.12 lb/mmBtu, most are much smaller units than at the Boardman plant.* *f) DEQ does not believe that a 90% reduction in SO_2 is achievable in practice due to the relatively low sulfur content of the coal burned at the Boardman plant. There is a point of diminishing returns when the addition of more lime will not continue to significantly reduce the SO_2 emissions. This phenomenon has always been addressed in regulations dealing with systems that rely on reagents to control pollutant emissions. For example, the New Source Performance Standard for electric generating units has a requirement to reduce SO_2 emission by 90% if the emissions are greater than 0.6 lb/mmBtu and 70% if the emissions are less than 0.6 lb/mmBtu.* *g) As discussed above, DEQ believes that the appropriate emission limit for the dry scrubber controls is 0.12 lb/mmBtu as a 30-day rolling average.* *h) The Department does not agree to add a zero to the standards because the monitoring and testing methods are generally only precise to two significant digits. Establishing limits with 2 significant digits is consistent with most New Source Performance Standards promulgated by EPA.* *i) DEQ appreciates the support for the SO_2 BART limit.*
3. DEQ's Phase 1 NOx controls extension contingency	a) PGE should require Phase 1 NOx controls by July 1, 2011 and not be allowed a compliance extension to July 2014. (17) (49).(48) (51)
Response	*a) DEQ has proposed a provision for extending the BART compliance date for NOx to 2014 because there is some uncertainty as to whether LNB/MOFA can achieve a limit of 0.23 lb/mmBtu. Although not specifically required by the regional haze rules, DEQ believes that it is important to at least try to achieve the presumptive limits provided in EPA's guidance document for national consistency. The BART limit proposed for 2011 satisfies the intent of the guidelines for installing LNB/MOFA. However, due to the unique design of the Boardman boiler, it may not be possible to meet the limit. DEQ could only identify one other unit in the United States that has the same design as the Boardman boiler and already has new LNB/MOFA installed. In 2008, the NOx emissions from unit 1 at the Gerald Gentleman Station in Nebraska were 0.223 lb/mmBtu as an annual average. Based on this data and average emissions from previous years, DEQ believes that it is possible for the Boardman boiler to meet an annual limit of 0.23 lb/mmBtu with LNB/MOFA. However, if it is not possible, DEQ proposes an extension to 2014 to allow PGE to install a Selective Non-Catalytic Reduction (SNCR) system. Although SNCR is not recommended as BART for the various reasons provided in the BART report, it is a reasonable add-on for a limited amount of time to meet the presumptive BART limits, again for national consistency. The SNCR system will only be temporary because it will be replaced by the SCR system in 2017 or it will be used in conjunction with the SCR system, but there won't be nearly as much excess ammonia emissions once the SCR is installed. PGE won't know whether the new LNB/MOFA system will achieve the proposed limit until 2012 because the limit is an annual limit and the equipment won't be installed until 2011. If*

	the limit can't be met, DEQ's proposal allows 2 additional years for PGE to design, procure, and install the SNCR system, which is a relatively aggressive schedule.
4. DEQ's SO_2 installation schedule	a) PGE should install the SO_2 controls by July 1, 2013, rather than July 1, 2014. (51)(49)(48) b) Similar SO_2 controls required for the Centralia coal plant in 1998 were able to be installed in four years. (51)
Response	*a) Based on the complexity of the retrofit project as well as the potential for competition with other BART retrofit projects nationally, DEQ does not believe that it is reasonable to require the SO_2 controls be installed by July1, 2013.* *b) The Centralia Plant was required to install wet scrubbers as a result of a Reasonably Available Control Technology (RACT) determination and order in 1997. According to the Acid Rain Program emissions data, the controls were installed in 2001 for one unit and 2002 for the other unit. DEQ believes the schedule for the Boardman Plant is consistent with the Centralia Plant; especially considering that the Boardman Plant will have competition with other BART projects.*
5. Accelerate the installation timeline (no date specified)	a) DEQ should accelerate the timeline for installation of Phase 1 NOx and SO_2 controls. (4) (19)(21)
Response	*a) DEQ believes that the schedules for installing the BART controls are reasonable and expeditious. The Phase 1 NOx controls are required to be installed within 2 years and the SO_2 controls are required to be installed within 5 years. The schedule takes into consideration the time necessary for engineering, procurement, and construction of the specific control technologies and coordination with the normal maintenance outage that occurs each year in the late spring. However, the schedule does not take into consideration final approval of the SIP by EPA. According to the regional haze rules, the BART controls are to be installed no later than 5 years from approval of the SIP. Therefore, the proposed schedule is more stringent than required because the SIP approval will probably not occur until the beginning of 2010 at the earliest. In establishing the schedule, DEQ also considered it unreasonable to expect PGE to commit resources to the retrofit projects until they are certain what requirements must be met. DEQ is sensitive to the fact that there will be numerous other retrofit projects occurring at the same time throughout the country, and these projects will be in direct competition for the necessary equipment and resources, which was not necessarily the case when retrofit controls were added to the Centralia coal plant.*
6. DEQ's Phase 1 NOx controls should include SCR	a) The addition of SCR to Phase 1 NOx controls would almost double the visibility improvement at Mt. Hood, and by 25% for the 14% Class I areas impacted by PGE Boardman, as the SO_2 controls. SCR should be BART because PGE Boardman's singular and significant contribution to haze and impact on visibility. (17) (52) (54) b) Adding SCR to the Phase 1 NOx controls is more cost-effectiveness and provides more visibility improvement than DEQ's SO_2 BART controls, and therefore should be included as BART to Phase 1. (17)(47)(52)(53) c) DEQ overestimated the cost of SCR, and the costs of a combined LNB+MOFA+SCR system. (52)(54) d) DEQ underestimated the reductions achievable by SCR. (17)(52) e) DEQ's estimate of emissions reductions from SCR controls should be 9,266 tons, not 8,647 as estimated by DEQ (based on a 30-day rolling average). (17)(52) f) SCR costs did not consider the savings due to potential improvements in thermal efficiency. (47) g) SCR is only six times as much as LNB/MOFA, not eight times as stated in the BART Report. (47) h) SCR is almost as cost effective as SNCR, and SNCR is relied on as a contingency for

	BART. (47) i) One reason for not selecting SCR as BART was to allow time for the development of innovative controls. Innovative controls should be evaluated before they are installed. (47) j) The Salt River consent decree concluded that SCR is a reasonable retrofit. (47)
Response	*a) DEQ agrees SCR controls would provide significant visibility improvements, but does not agree SCR should be BART, because its annual costs are about 6 times more than LNB/MOFA, yet provides about 2 times more visibility improvement. It is also unlikely that SCR could be installed within the 5-year period allowed by the BART rules due to the significant boiler modifications that will be necessary for the retrofit.* *b) DEQ agrees that when compared to each other, SCR is more cost effective and provides more visibility improvement than the SO_2 dry scrubber controls. However, BART must be evaluated for each pollutant separately. Similar costs are not necessarily an indicator that two control options are equal. DEQ concluded that LNB/MOFA better fits the concept of BART than SCR, and that SCR is cost-effective for providing additional NOx control. This was not the case when comparing the dry scrubber to the wet scrubber, where visibility improvement was about the same, yet the cost for the wet scrubber was much higher.* *c) In response to the comment that DEQ overestimated the cost of SCR, DEQ believes that the costs used in the analysis reflect real world costs of complex retrofit projects. DEQ's consultant Eastern Research Group (ERG) concluded that traditional tools (CUECost and EPA's Cost Manual) underestimate the costs for SCR, but that PGE's estimates are probably 20% high. ERG's conclusion was based on an assessment of retrofits projects that have occurred primarily in the eastern U.S. and may represent easier retrofit projects, as companies were inclined to get as much emissions reduction as soon as possible at the lowest cost. The retrofit at the Boardman plant is considered to be complex because of the extensive modifications to the boiler that are necessary to reduce the temperature of the exhaust gases entering the SCR.* *In terms of the cost of a combined system, DEQ believes it is appropriate to add the annual costs for LNB and SCR together to arrive at a total cost for the entire package. The only savings as a result of having the LNB in front of the SCR is the amount of reagent used in the SCR system each year and that is not a significant portion of the total annualized cost. Assuming that only half as much reagent is required when LNB is installed ahead of the SCR, the annual cost of the SCR system with LNG would be $22.7 million, versus $23.1 million without LNB.* *d) In terms of the reductions achievable by SCR, DEQ conducted a more extensive evaluation of the SCR control effectiveness. There are 190 coal-fired electric generating units with SCR controls in the U.S. In 2008, 17 of the 190 units had an annual average emission rate less than 0.07 lb/mmBtu and only three of the 17 were dry bottom wall-fired units. The lowest emission rate for the dry bottom wall fired units was 0.052 lb/mmBtu as an annual average. When evaluated on a 30-day rolling average, the 95% confidence level was 0.068 lb/mmBtu. Based on this data, DEQ believes that the control effectiveness (e.g., 0.07 lb/mmBtu) used in the BART analysis represents the best controlled dry bottom wall-fired unit in the U.S.* *e) DEQ's estimate of emission reductions used in the calculation of cost effectiveness was based on the difference between the maximum hourly emission rate in lb/mmBtu during the period of 2003 and 2005 and the control effectiveness/emission limit in lb/mmBtu for the control option. The maximum hourly emission rate during 2003 to 2005 was used to calculate "baseline" emission because it corresponds to the hourly emissions used in the visibility impact analysis. The annual emissions before and after controls were calculated using the highest 12-month heat input during the 2003 to 2005 period, assuming that the unit will be operated at the same levels in the future. For both the pre and post control emission calculations, the annual emissions will be more*

	than the actual emissions. DEQ took this approach because there is no way to know what the actual emissions will be in the future, except that the actual emissions should be less than the allowable emissions calculated using the control effectiveness/emission limit for the control option. Since the pre-controlled emissions are based on the maximum hourly emissions, it is more accurate to determine the emission reduction using the allowable emissions after the controls are added because the allowable emissions are more representative of maximum emissions, making this an apples-to-apples comparison. *f) The exhaust gas going to the ESP has to remain about the same before and after the redesign of the lower economizer. As a result, it is anticipated that the increased thermal efficiency of a larger economizer prior to the SCR will be offset by a decrease in thermal efficiency due to cooler combustion air after the SCR. More heat will be extracted from the hot gases in the economizer to get the temperature down to the desired level before the SCR but this means that the temperature of the gases will be cooler at the preheater so that there will be less heat transferred to the combustion air. Balancing the temperatures is the primary reason for why the SCR retrofit is so difficult.* *g) DEQ agrees the capital cost of SCR by itself ($191 million) is about 6 times as much as the cost of LNB/MOFA ($32.7 million), not 8 times as much as stated in the BART report.* *h) SNCR is considered BART only as a contingency due to other factors besides cost and visibility protection. As a result, DEQ did not consider the relative costs of SNCR and SCR. However, there is a substantial difference in costs. The capital cost of SNCR is $17.4 million dollars versus $191 million for SCR.* *i) BART represents emission limits that can be achieved using control technologies that meet the BART criteria. However, BART does not require that a certain type of control be installed to meet the limits. Some other type of control may be installed to satisfy the BART requirement if the alternative or innovative control technology can achieve the emission limit established for BART. The only test for acceptance is whether the control technology meets the limit.* *j) DEQ does not believe that controls established as the result of an enforcement action should be considered BART unless they meet the BART criteria.*
7. EPA SIP approval and timeline for installation	a) DEQ has set a deadline for installing SO_2 controls of July 1, 2014, without knowing how long EPA approval of the SIP will take, which may not give PGE Boardman the full 5 year-time period allowed under BART after EPA approval of the SIP. (22)(58) b) DEQ should add provisions to the rules specifying that if EPA does not approve DEQ's SIP, PGE does not have to install any of the proposed controls. (22) c) PGE should be allowed to have the full five-year time period after EPA approval of the SIP. (159)(164)**(170)** d) The timeline for installing Phase 2 NOx should be 8 years after approval. (22) e) The timetable for PGE installing controls should start right after EQC approval of the rulemaking, and not start after EPA approval of DEQ's SIP, which could take a year or more. (51) f) EPA's Regional Haze Rule requires BART be installed "as expeditiously as possible", but not more than 5 years. The dates set by DEQ for compliance with BART are not as expeditiously as possible. (17) g) DEQ should add provisions that it may extend the Phase 1 deadlines in the event there are delays beyond PGE's control. (22)
Response	*a) Under BART, the controls must be installed "as expeditiously as possible, but no later than five years".* *b) DEQ has every expectation EPA will approve the SIP and these rules. DEQ as a matter of policy does not adopt rules with conditional provisions related to EPA approval.*

	c) *See DEQ's response to (a) above.* d) *DEQ expects EPA will approve this SIP in a timely manner. Assuming this approval in early 2010, the timeline for installing Phase 2 NOx is about 7 years. This was determined by DEQ to be reasonable timeline, given the need for engineering, procurement, and construction, as well as additional time to make boiler modifications to accommodate the retrofit.* e) *Under the BART requirements, the timeline for installing controls does not officially start until EPA approval of the SIP. For both the Phase 1 NOx and SO_2 controls, DEQ has established a timeline (2011 for NOx, 2014 for SO_2) that is shorter than the 5-year maximum period.* f) *As stated above, the timeline for installing BART controls for PGE Boardman was determined by DEQ to be "as expeditiously as possible".* g) *Except for the compliance extension contingency for Phase 1 NOx controls, DEQ does not support adding other provisions that could extend the Phase 1 deadlines.*
8. Cost-effective metrics	a) DEQ should have more consistently used the EPA's Control Cost Manual. (52) b) DEQ placed undue emphasis on incremental cost-effectiveness. (52) c) The cost effectiveness for SO_2 BART is $3.5 million/dV and the cost effectiveness for NOx SCR is $2.2 million/dV, therefore SCR should also be BART. (52) d) The BART Report has errors in tables 15 and 16, which make it difficult to evaluate the cost effectiveness. (47)
Response	a) *DEQ did rely on EPA's Control Cost Manual as a tool for estimating cost, but also researched "real world" costs as part of our evaluation of control costs. DEQ believes it is important to use the best available information and to provide the best estimate of the true costs.* b) *Incremental cost-effectiveness is an important metric to consider for retrofit projects to ensure that the additional cost of controls is justified by corresponding environmental improvement.* c) *DEQ does not believe that the intent of the BART regulations was to compare the cost effectiveness of controls for one pollutant to the cost effectiveness of controls for another pollutant. In fact, the BART guidelines specifically state that BART should be evaluated on a pollutant by pollutant basis. The costs of controls will vary dramatically from pollutant to pollutant, depending on the degree of difficulty associated with reducing the pollutant emissions.* d) *DEQ apologizes for the errors in tables 15 and 16. However, the cost effectiveness and incremental cost effectiveness in terms of $/ton in Table 15 are correct. The annual costs should have been $3.7 million for LNB/MOFA, $7.1 million for LNB/MOFA/SNCR, $23.1 million for SCR, and $26.8 million for LNB/MOFA/SCR. In table 16, the baseline emissions were not included for SO_2 and PM. The baselines are 14,902 tons for SO_2 and 417 tons for PM. These errors were pointed out to DEQ early in the public notice period and a revised report was posted on the rulemaking web page. Notice of the revised report was provided to all interested persons at the time that DEQ provided notice for extending the comment period. In addition, the spreadsheets supporting the data in the tables were provided on the rulemaking web page.*
9. DEQ's evaluation of SNCR	a) SNCR controls can achieve more NOx reduction than estimated by DEQ. (52) b) Although SNCR controls raise a problem of unreacted ammonia emissions, the benefits of reducing NOx far outweigh the drawbacks of ammonia slip. (52) c) What role will DEQ play in the SNCR contingency decision? (47)

Response	a) *There is no actual data demonstrating that Selective Non-Catalytic Reduction (SNCR) can perform better than 0.23 lb/mmBtu on a dry bottom wall-fired boiler in the size range of the boiler at the Boardman plant. There are 87 coal-fired electric generating units with SNCR controls and most of them are combined with low NOx burners and overfire air. Only eight of the 87 boilers are larger than 400 MW. The largest dry bottom wall-fired unit is 541 MW and the annual average emission rate in 2008 was 0.28 lb/mmBtu. The next largest is 437 MW and the annual average emission rate in 2008 was 0.229 lb/mmBtu. Based in this information, DEQ does not believe that SNCR can achieve more NOx reduction than used in its BART analysis.* b) *DEQ concluded that in general, LNB/MOFA controls can meet the proposed Phase 1 NOx emission limit. However, due to the design of the boiler at PGE Boardman, it is possible these controls may not quite achieve the proposed limit, which is why SNCR was added as a contingency measure to the proposed rules. The cost of SNCR is considerably higher than LNB/MOFA, and SNCR not only has ammonia slip drawbacks, but also slag issues and storage and handling safety concerns, which are the reasons it was not recommended as BART.* c) *The contingency will be added to the Title V permit along with a requirement that PGE submit a request for the contingency if the limit cannot be met after installing the low NOx burners. The Department will evaluate the request and either approve or disapprove the compliance extension. Under the authority of the Highest and Best Practicable Treatment and Control regulations in OAR 340, Division 226, the Title V permit will include requirements for operating the LNB/OFA system as effectively as possible in the interim until the SNCR control is installed and operating.*
10. Startup, Shutdown, and Malfunction conditions	a) Although DEQ's rules include provisions that the emission limits do not apply during periods of startup and shutdown, they should also include malfunction or upset conditions. (22) b) Startup and shutdown exemptions should be removed, and a malfunction exemption should not be added. (17)
Response	a) *DEQ does not believe that an exemption should be provided for malfunctions because that is exactly the type of excess emissions that should be avoided with an adequate preventive maintenance program. In the event that there is a malfunction that is unavoidable, DEQ's excess emissions rules allow for enforcement discretion, but it should not be automatic for each malfunction.* b) *DEQ believes that the BART emission limits should not apply during startups and shutdowns if it is not possible to operate the controls during these periods. The low NOx burners will not be effective until the combustion process is stabilized and the SO_2 controls cannot be operated until the exhaust temperature is at least greater than the moisture dew point to prevent clogging and/or damage of the bag filters. DEQ's excess emissions rules require startup and shutdown plans to minimize emissions during these periods to the extent practicable.*
11. Phase 2 NOx controls comments only	a) SCR results in significant visibility improvement in the Class I areas impacted by PGE Boardman's emissions. (47)(50)(53) b) SCR controls can achieve emissions rates lower than what DEQ has proposed. (17)(54) c) DEQ's Phase 2 controls for SCR are too stringent and go beyond regional haze requirements (22)(24)(25)(27)(35)(62)(69)(76) d) DEQ's reasonable progress Phase 2 controls for SCR do not achieve a significant visibility improvement for the cost involved. (22)(25)(27)(38)(57)(69)(108)(164)**(170)** e) DEQ has singled-out PGE Boardman for a reasonable progress determination, rather than looking at the contribution of other sources around the state. (22)(24)(27)(57)(66)(159)(164)**(170)** f) In considering the benefits of SCR controls, DEQ is limited to only considering the

	visibility benefits, as the 5 BART criteria do not include the consideration of air quality benefits. (22)(24)(25)(38)(57) g) DEQ should delay adopting Phase 2 rules until the next SIP submittal. Including these controls now will likely delay EPA SIP review and approval process, which in turn could delay implementation of the Phase 1 BART. (22) h) The Boardman Plant should be subject to Reasonable Progress due to the significant impacts. (17)
Response	*a) DEQ agrees that SCR will result in significant visibility improvements in most of Oregon's Class I areas.* *b) As discussed in comment 6, DEQ believes that the emission limit proposed for SCR is as stringent as possible, but still achievable by PGE Boardman.* *c) For the reasons described in this group of DEQ responses, the Phase 2 controls do not go beyond regional haze requirements, in DEQ's judgment.* *d) DEQ's visibility modeling showed PGE Boardman to be one of the most significant single sources of haze pollution in Oregon, impacting 14 Class I areas in Oregon and Washington, with the highest impact at the Mt. Hood Class I Area, at about nine times the significant visibility impact level, and accounting for half of the Class I visibility impacts from the BART sources that were modeled. The proposed Phase 1 NOx and SO_2 controls reduce the impact from PGE Boardman at the 14 Class I areas by an average of 52%. The addition of Phase 2 SCR controls increases that reduction to 81%, and also reduces the average impact to below the significant visibility impact level.* *e) DEQ's proposed Phase 2 SCR controls are needed for reasonable progress purposes, will provide significant visibility improvements, and are cost-effective and realistically achievable for PGE. Phase 1 NOx controls provide only a 46 percent reduction, while Phase 2 NOx controls using SCR provides 84 percent. This additional reduction will provide greater visibility improvement by the 2018 Milestone. Also, the magnitude and extent of PGE Boardman's visibility impacts in the 14 Class I areas cited in d) above justifies requiring these controls at this time.* *f) DEQ is not proposing Phase 2 SCR controls for BART, but rather for reasonable progress purposes. SCR controls will provide significant visibility benefits and help achieve the reasonable progress goals, and are consistent with the reasonable progress requirements under the federal Regional Haze rule Moreover, the Phase 2 SCR controls will provide additional improvements, such as reducing acid deposition, improving visibility in the Columbia Gorge, and general benefits to air quality and public health, that the EQC may consider under its state authority.* *g) Prior to the next SIP submittal (plan update) in five years, DEQ will be evaluating other industrial sources besides PGE Boardman as part of the evaluation of non-BART sources in the Long-term Strategy for making reasonable progress. In terms of delaying SCR controls for PGE Boardman, as noted above, DEQ's visibility modeling showed that PGE Boardman is one of the most significant single sources of haze pollution in Oregon. Requiring SCR controls now will result in significant visibility improvements, and is needed to make reasonable progress in meeting the 2018 Milestone. It will also provide regulatory certainty now, in terms of being able to plan for these controls in the upcoming years. For these reasons, DEQ does not support delaying adoption of Phase 2 controls. In terms of EPA SIP review and approval, DEQ expects this process will be expedited, due to EPA's involvement and coordination with DEQ in this rulemaking effort, and based on EPA's comments during the public comment period that indicate general support of this rulemaking as proposed.* *h) DEQ agrees that the Boardman Plant should be subject to Reasonable Progress due to the significant impacts.*
12. PM10 emission limits not BART	a) DEQ's proposed rule has 0.12 lb/mmBtu as the limit. This is a typo, and should be 0.012 lb/mmBtu. (22) b) DEQ's proposed PM10 emission limits of 0.012 lb/mmBtu is not BART. A limit of 0.010

	lb/mmBtu has been required for new coal plants and should be required for Boardman. (54) c) A continuous emissions monitoring system (CEMS) should be required for determining compliance with the PM limit. (17)(47)
Response	*a) The proposed rule has a typo. The PM BART limit should be 0.012 as specified in the BART Report. The rule has been revised to reflect this change.* *b) The proposed PM10 emission limits are based on DEQ's BART evaluation, which involves retrofitting existing facilities. This is different than the Best Available Control Technology (BACT) requirements for a new source. The limit for a retrofit project under BART should be based on what is demonstrated in practice for similar types of controls and emission units. Also, limits for new plants that are identified under a BACT analysis are not always achieved in practice. The difference between the proposed limit of 0.012 and 0.010 is not significant when considering the reference test methods for PM are generally only accurate to plus or minus 20%.* *c) DEQ does not agree that a continuous emissions monitoring system (CEMS) for measuring particulate matter emissions is necessary to assure compliance with the BART limit. CEMS for particulate matter are expensive and require extensive maintenance to ensure they remain accurate. DEQ does not believe that the extra cost of a CEMS is warranted for systems that that rely on fabric filters for meeting the standards. Fabric filters are generally very reliable control devices. The Title V permit will include parametric monitoring to ensure that the control device is operating properly. In addition, periodic testing will be required to determine compliance. The testing will also be used to establish parameter operating levels to be monitored to ensure that the control device is operating properly on a continuous basis.*
13. Cost of DEQ's proposed controls and economic impact	a) DEQ's proposed rules may lead to closing of the plant which would have a serious negative impact on the economy. (38)(60) (130) b) DEQ's proposed rules could affect economic development and impact the 2100 jobs at the Boardman plant. (69) c) DEQ's proposed rules would force PGE to raise rates and place an undue hardship on our economy. (31)(69) d) PGE should not be required to install expensive controls that could be scrapped in the near future, where they might not be able to recoup their investment. (66) e) In these very difficult economic times DEQ should not be demanding utilities to absorb unnecessary costs, which ultimately have to be passed to the consumer. (95)(108) f) Whether new controls are required for PGE Boardman, or the plant is shut down, will have a significant economic impact on low-income Oregonians. (29)(61) g) Cost effective power generating facilities here in the Pacific Northwest are extremely important to the economic well being of the area. (150) h) PGE Boardman plant is a significant source of affordable electricity for Oregon, and the proposed rules puts PGE in a position of potentially implementing measures without significant environmental benefit and unnecessarily spending large sums of money.(95) i) DEQ should take steps to lessen the impact on electricity customers if the plant has to shutdown.(108) j) I am PGE customer and am willing to pay more in order to have clean air through comprehensive pollution controls at PGE Boardman.(88)(127) k) The people who want some other type of power or none at all have seen only one side of the issue. More power at less cost should be the approach. (93) l) Money targeted on controls for PGE Boardman would be better spent on solar panels and other alternatives. (75)
Response	• *DEQ's fiscal and economic impact analysis on the proposed controls for PGE Boardman determined the costs are cost-effective and realistically achievable for PGE. DEQ's Fiscal Advisory Committee reviewed the cost estimates associated with the*

	proposed controls and concluded they were reasonable. DEQ anticipates that PGE and other owners of the Boardman plant will seek to pass along compliance costs to customers by increasing electricity rates. Any rate increase will be subject to the approval of the Oregon Public Utility Commission. DEQ's analysis concluded that the average rate increase for PGE customers would be approximately 2.8 percent in 2014, and 4.1 percent by 2018. Between 2010 and 2014, rate increases could range from 0.2 percent to 0.3 percent. In terms of the economic impact on low-income Oregonians, DEQ cannot quantify the significance of a rate increase of 3-4 percent over 11 years. Any assessment on the economic impact regarding a possible future shutdown of this facility cannot be made by DEQ at this time, and would be a decision made by PGE and the other plant co-owners .
14. Mercury controls compliance extension contingency	a) DEQ should not allow a 2-year extension beyond the 2012 compliance date for installing mercury controls. (17) (19) (20) (21) (48) (49)(96)(118)**(168)**
Response	a) *In 2006, DEQ adopted Mercury rules that require PGE Boardman to reduce mercury emissions by 90% in 2012. Included in that rulemaking was a one-year compliance extension contingency, if there were circumstances preventing compliance by 2012. DEQ's proposed SO_2 controls to meet BART are required by July 2014. Since the mercury and SO_2 control technologies are integral to each other, DEQ is proposing to change the compliance extension contingency to 2 years, to align the installation of these controls. PGE is still required to comply with the mercury standard by 2012 using existing equipment, if possible. However, the activated carbon used for controlling mercury emissions may contaminate the fly ash collected in the ESP to the extent that the material could not be used as a concrete additive and would have to be disposed in a landfill. This rulemaking adds fly ash contamination as a reason for granting a two-year extension.*
15. Supporting documentation	a) While the monthly cost increase to the average residential rate payer is relatively small, businesses are affected more and I didn't see those costs reflected in the cost analysis. b) DEQ's Land Use Evaluation Statement is inadequate and does not address the full range of impacts to land use, state agency coordination requirements, nor does it address the impact on jobs and other economic consequences if this rulemaking causes the Boardman plant to shut down. (38)(60) c) DEQ did not provide the required Land Use Compatibility Statement (LUCS). (60) d) DEQ's fiscal and economic impact analysis should consider the cost of new carbon dioxide rules and controls. These costs could force PGE to close the plant. (30)(40)(58)(59)(60) e) DEQ's Fiscal Impact Report erroneously states that there would be no direct fiscal or economic impacts on any local government. (38) (60) f) Does DEQ have legal authority to change the air permit for PGE Boardman, and adopt rules that specifically apply to one source - PGE Boardman? (60) g) Has DEQ considered the impacts to the Site Certificate originally issued to PGE Boardman by the Oregon Department of Energy? (38) h) There is multi-pollutant control technology available called the "cloud chamber scrubber" that could be a viable alternate retrofit technology for PGE Boardman.(65)
Response	a) *DEQ's Fiscal and Economic Impact Statement estimates that the proposed rules would not have a direct economic impact on small business, but could have a significant indirect impact through increased electricity rates. If approved by the PUC, DEQ estimates that rates could increase 0.3 percent in 2011, 2.9 to 3.4 percent by 2014, and 4.2 to 5 percent by 2018. These rates increases could be less if the small*

	business is charged at the residential rate class, and would only affect small businesses that are customers of PGE and the other companies that own the Boardman plant. *b) DEQ believes its Land Use Evaluation Statement appropriately addresses the impact on land use. The consequences of whether this action will cause PGE Boardman to shutdown cannot be ascertained at this time. DEQ believes the proposed controls are realistically achievable and cost-effective for PGE Boardman.* *c) DEQ is not required to provide a LUCS with this proposed rulemaking. DEQ has met all the legal requirements regarding land use impacts associated with this proposed rulemaking. The LUCS are required for new sources when they submit their application for a permit. In some cases, the LUCS is required for a permit modification of an existing source if the change will involve a physical expansion on the property or proposed use of additional land, or if the change results in a net significant emission rate increase as defined in DEQ rules. However, for this rulemaking, the LUCS is not required.* *d) DEQ's fiscal and economic impact analysis is not required to analyze the potential impact of regulations (such as carbon rules) that have not been adopted yet. Any attempt to do so would be speculation.* *e) DEQ believes the Fiscal Impact Report is correct in stating no direct fiscal or economic impact is anticipated on local government from the proposed rules. The Fiscal Impact Report did acknowledge the proposed rules could have an indirect impact on local government in terms of increased electricity rates, if approved by the Oregon Public Utility Commission. DEQ cannot estimate at this time any economic impact on local government if PGE chose to close the plant in the future.* *f) The Environmental Quality Commission has the authority to adopt rules for specific sources when mandated by the federal government or when necessary to protect the environment. Once a rule is adopted for a specific source, it becomes an applicable requirement under the Oregon Title V Operating Permit program and the permit must be revised to include the requirement in the permit. (ORS 468A.025(4) and (5) and OAR Chapter 340, Division 218)* *g) DEQ would consider comments addressing impacts on the Site Certificate; especially if they pointed out an inconsistency. However, DEQ did not receive any comments pertaining to any inconsistency with the Site Certificate.* *h) DEQ evaluated all control technologies that have been demonstrated in practice for coal plants similar to Boardman. Innovative controls, such as the "cloud chamber scrubber" were not considered because they are not available and applicable controls according to the BART guidelines. Although innovative control technologies were not evaluated for BART, PGE may use any control technology that will meet the BART limits to satisfy the BART requirements.*
16. General comments in favor of more controls	a) PGE Boardman is the largest single source of haze-causing pollution in Oregon. The current proposal fails to adequately control air pollution from the plant, and should be revised to better protect the Columbia River Gorge, human health and ecosystems. (96)(103)(118)(156)(161)**(168)** b) DEQ should require the controls for Boardman to reduce air pollution by over 90%. (19)(21)(96)(104)(118)(156)(161)**(168)(169)** c) DEQ should require substantial reductions in emissions. These reductions should be the greatest allowed by law. (113) d) DEQ's proposed emission limits should be strengthened to reflect what the proposed control technology can achieve. (6)(72)(96)(97)(118)(132)(148)(155)**(168) (169)** e) All available air pollution controls should be required for Boardman, regardless of the cost. (84)(99) f) PGE Boardman should be shut down or have the most stringent controls installed now (5)(14)(10)(92)(122)(135)(146) g) Require SCR and SO_2 controls by 2011, then consider shutdown in 2016 to address

	climate change. (55) h) DEQ proposed rules should be required sooner and should be the most stringent controls. (4)(74)
Response	• *DEQ conducted an exhaustive three-year evaluation of the appropriate controls for this facility. The end result was a suite of emission controls for PGE Boardman which is both stringent and cost-effective, and complies with the regulatory requirements for BART and Reasonable Progress. Over the next eight years these controls will reduce the plant's emissions by approximately 21,000 tons per year, thereby reducing peak visibility impacts at all 14 Class I areas by an average of 83 percent, improving visibility by the 2018 Milestone, reducing visibility degradation and acid deposition in the Columbia Gorge, and providing general air quality and public health benefits. Given the extent and magnitude of PGE Boardman's current visibility impacts, and the requirements of the regional haze rule, DEQ believes the proposed controls represent the appropriate level of stringency for this facility.*
17. General comments in support	a) DEQ's proposed rules for Boardman will not only improve visibility but also reduce air pollution impacts on tribal lands. (1)(2)(3) b) PGE Boardman has been allowed to operate with bare minimum controls for 30+ years, and now should install controls as soon as possible. (3)(73)(74)(77) c) PGE Boardman has by far the greatest impact on Oregon's Class I areas and the Columbia Gorge, both on visibility but also tribal cultural resources in these areas. (2) d) PGE Boardman contributes significantly to the overall pollution load, in terms of acid rain, haze, ozone and greenhouse gases. (1) e) DEQ should adopt all the proposed controls for PGE Boardman. (2)(25)(115)(120) f) Strong pollution controls are needed as soon as possible to protect the Columbia Gorge. (7)(11)(18)(147) g) DEQ should take action now to clean up PGE Boardman, and there should be no further delay in reducing its' emissions. (3)(11)(63)(78)(79)(84)(86)(94)(100)(106)(107)(125)(134)(138) h) The Boardman plant is the largest haze-producing source in the state and it's time for something to be done about it. (63)(88)(105) i) Oppose any modification of DEQ's proposed rules that would allow PGE additional time to reduce emissions. (12) j) Aggressive action must be taken to curb PGE Boardman emissions, not only of mercury, but also haze causing sulfur and other gasses and particulates. (127)(165) k) Please reduce the amount of pollution the PGE Boardman power plant is allowed to emit.(129) l) We may need the power, but surely we need to restrict emissions to new standards to help preserve our environment and the planet as we know it. (157) m) These pollution restrictions are completely reasonable and achievable. Their full implementation will produce a better and cleaner environment. (115) n) Support the proposed controls but believe the timelines for implementation should allow for EPA approval of the SIP before PGE has to spend any money related to costs of installing controls. (159)**(170)**
Response	• *DEQ agrees that strong pollution controls are needed for the PGE Boardman plant given the extent of its visibility impacts, and as stated in #16 above, has recommended controls that will have significant environmental benefits.*
18. General Comments in opposition	a) DEQ's proposed rules should not be adopted as currently presented. (38)(130) b) The impact of these rules single out PGE Boardman at the expense of all the other contributing sources to haze. (38)(60)(116)(162) c) EPA's Regional Haze Rule is a 60-year rule, so why is DEQ accelerating the federal timeline by requiring controls by the 2018 Milestone? (38)(60)

	d) Is it possible to provide PGE with more flexibility and/or more options to address this regional haze issue?
Response	a) *DEQ disagrees, and has cited many reasons why these proposed rules should be adopted.* b) *DEQ's visibility modeling for PGE Boardman showed this power plant to be one of the most significant single sources of haze pollution in Oregon, impacting 14 Class I areas in Oregon and Washington, within a 200 mile radius of the plant, and accounting for half of the Class I visibility impacts from the five BART sources. Given the magnitude of PGE Boardman impacts, the need for additional visibility improvement for Reasonable Progress, and other air quality benefits that could be achieved, the proposed controls for PGE Boardman are justified. It should be noted that the other four BART sources that showed significant visibility impacts (although much less than PGE Boardman) have lowered their emissions as well, by taking a federally enforceable permit limit.* c) *Although the Regional Haze rule is over 60 years, the first regional haze plan has to demonstrate Reasonable Progress by the 2018 Milestone.* d) *As stated in DEQ's response #16, the proposed controls for PGE Boardman were the result of an exhaustive three-year evaluation in which many options were considered. They represent DEQ's determination of the appropriate stringency and cost-effectiveness, given the extent of the plants' regional haze impacts, and the need to meet the regulatory requirements for BART and Reasonable Progress under the Regional Haze Rule.*

II. Comments on PGE Proposed "Decision Points" option for PGE Boardman closure	
A. General comments in Support of PGE's proposal.	
19. Allows flexibility and sound decision-making	a) PGE's proposal will allow needed flexibility in making critical decisions about upcoming regulations to address global warming. (22)(23)(24)(25)(26)(27)(28)(29)(32) (33)(34)(35)(36) (37)(39)(40)(42)(41)(44)(56)(58)(59)(60)(61)(62) (69)(76)(85)(95) (116) (117)(139)(164)**(170)** b) PGE's proposal will allow sound economic decisions to be made.(23)(24)(25)(26)(27)(28)(30)(32)(33)(35)(36)(37)(40)(43)(44)(59)(62)(76)(164) c) Allows for better planning and more time to find replacement power if the plant needs to be shut down. (28) (43)(58) d) Helps PGE in its planning process with the Public Utilities Commission. (22)(24)(26)(27)(28)(30)(35)(41)(42)(44)(58)(59) e) PGE's proposal will minimize rate impacts on PGE customers. (23)(24)(26)(28)(30)(31)(34)(35)(40)(42)(56)(58) f) The decision points will lessen the impact on the economy by using the best information available before making a decision to shut down the plant. (24)(29)(30)(31)(38)(40)(42)(43)(61) g) There is no risk to PGE's proposal, but considerable risk to customers if the DEQ plan is accepted. (40) h) I believe it would be in the best interests of the residents of Oregon for the DEQ to allow PGE to follow through with their proposal.(91) i) Approve PGE's timetable for deciding when to install the new emission control devices at the Boardman coal-fired power plant. (108) (119)(139) (150) j) Support PGE's proposal. If the plant has to shut down by 2020, PGE should pursue cleaner energy choices like wind or solar. (146)

Response	• *DEQ understands PGE's desire to have regulatory flexibility once future carbon regulations are adopted. However, trying to establish alterative closure dates by rule at this time can only be based on incomplete information and speculation. As a regulatory matter DEQ has additional concerns, which are described below in detail in DEQ response #20 a).* • *The preferred approach would be for PGE to submit a written request to DEQ for a rule change at a time when the full extent of carbon regulations is known, when costs and tradeoffs have been evaluated, and when a decision has been made on the future of the Boardman plant. At that time DEQ and the EQC can evaluate the options for modifying the emission control requirements in light of a plant closure. DEQ would also work with EPA and others to take action as needed to prevent unnecessary expenditures.* • *In response to PGE's proposed closure options, DEQ has revised the Oregon Regional Haze Plan to add provisions that would allow PGE to make a formal request for a rule change to DEQ, if PGE determines that the impact and cost of carbon regulations will require the closure of the PGE Boardman plant. These provisions can be found on pages 155 and 202 of the proposed Oregon Regional Haze Plan. This action could be included in the 2013 regional haze plan update. The decision by DEQ to consider any rule changes would reflect the need to conduct this action in an expeditious manner, yet with the full involvement of the public, stakeholders, and the fiscal advisory committee process. An ideal time for PGE to present such a request would be as part of the 2013 regional haze plan update; although PGE could make this request at any time the decision has been made to close the Boardman plant.*
20. Meets regulatory requirements	a) PGE's proposal meets the BART and Reasonable Progress regulatory requirements. (22)(24)(27)(28)(35)(62) b) Based on PGE's 2012 decision point, DEQ should adopt an alternative to the Phase 1 SO_2 BART controls, using PGE's proposed 2020 shutdown date as the basis for the remaining useful life of the plant. (22)(24)(164) c) Based on PGE's 2015 decision point, DEQ should adopt an alternative to the Phase 2 NOx controls, using PGE's proposed 2029 shutdown date as the basis for the remaining useful life of the plant. (22)(24)(164) d) Using PGE's 2020 shutdown date, only the Phase 1 NOx controls proposed by DEQ represent BART. No SO_2 controls should be required, as they are too expensive at $5,167/ton of SO_2 controlled, which is not cost-effective for BART. (22) e) Using PGE's 2029 shutdown date, PGE would install DEQ's Phase 1 for NOx and SO_2, but no SCR controls (Phase 2), as they are too expensive at $7,312/ton of NOx removed, which is not cost-effective. (22) f) PGE's proposal does not increase emissions and has same environmental impact. The aggregate emissions with the 2020 shutdown = 232,453 tons, while for 2029 shutdown = 231,292 tons. Under DEQ's proposed Phase 1 & 2 controls, the aggregate emissions = 237,149 tons (assuming plant life of 2040). PGE's proposal same or less than DEQ's rules. (22)(23)(24)(25)(26)(27)(30)(34)(36)(37)(41)(44)(58)(59)(61)(62) g) PGE's proposal meets BART and the environmental goals supported by our state but also respect the need to keep our economy as strong and local as possible. (159)
Response	*a) DEQ disagrees that PGE's proposed closure options meets the BART and Reasonable Progress requirements. DEQ agrees with the comments submitted by EPA and federal land managers that PGE's proposal lacks an evaluation of alternate controls that might be cost-effective and feasible (and the visibility improvements that such controls might provide) prior to the proposed closure dates. EPA's BART rules require that all control technologies be evaluated with specific emphasis on the expected visibility improvements. There is also a requirement for full public review and*

	comment of any BART determination. These factors were not fully addressed in PGE's proposal for the 2012 decision point. PGE also concluded that no additional NOx controls (i.e. no SCR or other controls) were needed prior to the 2029 closure date if PGE made a closure decision in 2015. This critically overlooks the need for visibility improvements prior to the 2018 Milestone. Timely air quality improvements in Class I areas is a key reason for DEQ proposing additional SCR controls. *b) DEQ does not support the 2012 decision point. See DEQ's response in (a) above.* *c) DEQ does not support the 2015 decision point. See DEQ's response in (a) above.* *d) DEQ disagrees that the proposed SO_2 controls and Phase 2 NOx controls are too expensive. EPA has not defined an upper limit to the cost of BART, and States can use discretion in determining the cost effectiveness for controls based on reasonable guidelines. Even assuming a theoretical closure date of 2020 or 2029 and the associated shorter remaining useful life of the pollution control equipment, DEQ would consider costs in the range of $5,000 to $7,000 per ton to be cost-effective for the PGE Boardman facility, and well below control costs of $10,000 to $15,000/ton typical for Best Available Control Technology (BACT) required for new or expanding major industrial sources.* *e) See DEQ's response in (d) above.* *f) DEQ disagrees that PGE's closure options provide the same environmental benefit as DEQ's proposed rules. Allowing the Boardman facility to continue operation for many years without additional controls will result in continued visibility degradation and acid deposition. It is true that closure of the plant would result in a significant total reduction in air pollution (i.e., PGE's "aggregate emissions" comparison) over the long run. However, this would come at the expense of continued visibility degradation and increase risk to Class I areas in the near term. Allowing visibility degradation to continue to 2020 or 2029 is not beneficial to Class I areas, nor to the Columbia Gorge Scenic Area.* *g) DEQ disagrees, based on the responses provided above.*
21. Unwanted Consequences	a) Once the decision is made to invest $470 million (total cost for all controls proposed by DEQ), Oregon will lose the option of closing the plant early (and eliminating both carbon and other pollutants) due to the investment made by PGE and need to recover that investment. (42)
Response	*a) DEQ's proposed rules for PGE Boardman would not require the full investment all at once, but rather in three separate time periods (compliance dates of 2011, 2014, and 2017). It is anticipated that any decision PGE makes to close the plant early will be made considering numerous factors, including but not limited to the overall investment.*
B. Support of alternate "decision points" or closure dates for PGE.	
22. Support of a 2011 decision point	a) DEQ should consider whether it's more prudent to close the plant ahead of schedule or to invest hundreds of millions of dollars in pollution controls. (17) b) DEQ should give PGE until 2011 to decide, not 2012, as PGE will have all the information needed to make a decision on plant closure. (4)(17)(20)(21)(64)(71)(96)(118)(138)**(168)** c) With a 2011 decision point, closure of plant should be no later than 2020. (20)(21)(71)(98) d) With a 2011 decision point, closure of plant should be no later than 2016. (17)(55) e) Closure of the plant should be 2018 at the latest. (131) f) Allow the coal plant to operate, as is, until 2015 providing PGE invests an additional 200 million dollars in wind or solar during that period of time. (123) g) DEQ should give PGE until 2011 to decide whether to install the most expensive control equipment (Selective Catalytic Reduction system and a Semi-Dry Scrubber) or

	cease emissions from the plant entirely, no later than 2020.(109)
Response	• *As stated above, DEQ does not support incorporating PGE's proposed closure options into the rules for several reasons. However, DEQ is proposing an alternative process in which DEQ could revise its rules at a future date if PGE decides plant closure is necessary. See DEQ response #19.*
C. Comments opposed to PGE's proposed "decision points".	
23. General comments	a) PGE's proposed shutdown dates (2020 and 2029) allow PGE to continue to emit at too high a level in the short-term, before closure. (17)(50)(53)(64)(71) b) PGE's proposal is a significant change to DEQ's proposed Phase 1 and Phase 2 controls for Boardman, and the general public should be given additional time to review and comment (47)(53) c) Both shutdown options allow continued impacts on the ecosystem and cultural resources in the short-term, before shutdown occurs (1)(50)(53) d) PGE's proposal is not acceptable given the current level of impact on visibility, air quality, and cultural resources. (2)(3) e) Both shutdown options have impacts in neighboring states of Washington and Idaho, yet there has been no consultation with these states, and how it will affect their regional haze plans. (53). f) PGE's proposal does not establish an enforceable mechanism to ensure plant closure, and runs the risk of continued facility operation at a level higher than DEQ proposed controls. (50)(53) g) PGE's use of aggregate emissions to show the "benefits" of their early shutdown options is deceptive due to the higher emission that would occur in the short-term, before shutdown. (47) h) PGE's use of aggregate emissions combines all pollutants, however NOx emissions contribute more to haze than SO_2. (17) i) If DEQ were to allow PGE to operate beyond the SO_2 or Phase 2 NOx compliance dates without installing the planned controls, DEQ must demonstrate there would be equivalent visibility benefits. (17) j) Under no circumstances should PGE be allowed to emit more under their proposal than under DEQ's, or weaken DEQ's proposed rules. (71) k) PGE should have until December 2009 to decide to install controls or shut down the plant, and if the later, cease emissions by no later than 2012. (161)
Response	• *DEQ agrees with the majority of the comments above. The closure dates would result in higher short-term emissions, which would have a greater impact on the ecosystem and cultural resources than DEQ's proposed rules. The use of aggregate emissions does not address visibility impacts. PGE's proposal is a significant change to the proposed rules, and would need further review by the public, as well as by neighboring states, in terms of how it would affect their regional haze plans. An enforceable mechanism to ensure plant closure would be addressed by an enforceable permit condition established in the source's air permit. However, as noted above, DEQ does not support PGE's proposal closure options.*
24. The 2012 Decision Point	a) BART reductions and controls are required within 5 years of SIP approval, however the PGE proposal allows the plant to operate beyond that time without such controls, and is inconsistent the BART regulations. (50)(53) b) This decision point changes the BART determination made by DEQ, yet there has been no full analysis of BART, nor any ability for the public to comment. This requires DEQ to redo the BART evaluation for Boardman, considering all 5 BART factors, and take back out for public comment. (47)(53).
Response	*a) PGE's 2012 decision point changes DEQ's BART evaluation, and represents an*

	alternate BART analysis based on using a shorter remaining life of the equipment associated with plant shutdown in 2020. DEQ's understanding of the federal BART rule is that it allows a facility to use a shorter useful life of the equipment if it obtains a federally enforceable permit condition in which it commits to a specific shutdown date. Whether PGE's proposal is inconsistent with BART in terms of going beyond the 5 years for installing BART controls is not the issue here, but rather that PGE's proposal does not fully meet BART for the reasons stated above in DEQ response #20 a). *b) DEQ agrees PGE has not provided a sufficient BART analysis reflecting the 2012 closure option, and the proposal does not fully meet BART due to the reasons stated in DEQ response #20 a).*
25. The 2015 Decision Point	a) DEQ's Phase 2 SCR NOx controls help achieve Reasonable Progress. PGE's 2015 decision point would allow shutdown in 2029, which is 12 years (2017-2029) without any emission reductions. (47)(50)(53) b) PGE's proposed shutdown option for 2029 would deny the opportunity to review Boardman emissions as part of the required 10-year plan review in 2018 and 2028. (53) c) If PGE chooses this decision point, they should be required to shutdown the facility as soon as possible after PGE makes the decision not to install SCR controls. (47) d) PGE states the cost-effectiveness of SCR is $7,300/ton if based on the years 2017-2029, however, if SCR is part of the Phase 1 NOx controls, it is only $3,709/ton. (47) e) The 2029 closure date is too long with no controls in place. (134)(140)
Response	*a) DEQ agrees with the comments that PGE's 2015 decision point does not meet Reasonable Progress requirements based on the reasons cited in DEQ response 20. This includes not evaluating other emission controls that might be feasible prior to 2029.* *b) DEQ also agrees the 2029 shutdown option does not address the review of Reasonable Progress in plan reviews in 2018 and 2028.* *c) DEQ acknowledges that PGE's proposed 2029 closure date is a long period of time, and that a shorter closer date would be preferable.* *d) DEQ agrees the cost-effectiveness of SCR would be less if made part of the Phase 1 controls.* *e) DEQ agrees controls are needed, based on the schedule it has proposed.*
D. Other comments on PGE's proposal	
26. Shut down now	*a)* PGE Boardman is a huge source of air pollution that is a danger to human health and the environment and should be closed now. (14)(15) *b)* PGE should consider creating a plan now to shut down the plant ASAP. (4)
Response	• *The decision to shut down the plant is a decision for PGE to make. This facility has a legal permit to operate at its current emission levels. DEQ's proposed controls for this facility will reduce its emissions by 21,000 tons, which is expected to benefit public health. While the extent of the public health benefit cannot be quantified, the magnitude of the emission reduction is significant. As PGE has indicated, it may decide to shutdown the plant in the future based on eventual carbon regulations and other considerations.*
27. Option to shut down in 5 years	a) PGE has the option to shutdown within 5 years of EPA approval of the SIP, and still be in compliance with BART. (47)(50)(53)
Response	*a) It is clear that shutting down PGE Boardman in the 5 years period allowed under BART would more than satisfy this requirement.*
28. No offsetting of emissions	a) If PGE chooses to shutdown, DEQ should make provisions in their rules that would not allow the emission reductions from shutdown to offset emissions from a new facility.

	(47)(50)(53)
Response	a) *Under DEQ's rules, an owner or operator which voluntarily chooses to shutdown a process, activity, or equipment at a source, may use the emission reductions to offset emissions from new or modified equipment at the source without being subject to New Source Review provided the netting basis is sufficient for the change. If the shutdown is required by rule, the emission reductions would not be available for offsets after the date of the required shutdown. (See definition of "netting basis" and "major modification" in Division 200 and the rules for Emission Reduction Credits in Division 268).*
29. PGE's proposal related to the Columbia Gorge (see also #47)	a) PGE's proposal adversely impacts the Columbia River Gorge National Scenic Area for an unacceptably long time (i.e., 2020). (51)(64) b) Further delays in reducing emissions allow continued impairment of haze and damage to ecosystems and cultural resources in the Gorge. (50)(53) c) PGE's proposal is counter-productive to the 7-year work effort by Southwest Clear Air Agency, the USFS and DEQ to improve visibility in the Gorge. (50)(51) d) PGE's proposal may negatively affect SWCAA and DEQ relationships with the four Tribal Nations that have treaty rights in the Gorge. (51)
Response	*a) DEQ agrees that PGE Boardman's emissions impact both visibility and air quality in the Columbia Gorge.* *b) The proposed controls under this rulemaking will reduce total plant emissions by 81%, and result in visibility improvements in 14 Class I areas in Oregon and Washington currently impacted by PGE Boardman. Although the Columbia Gorge is not a federal Class I area, DEQ did conduct an analysis of this area. It showed that the proposed controls, when fully installed by 2017, will reduce PGE Boardman's visibility impacts by 78%, and provide significant reductions in acid deposition.* *c) Under PGE's proposal, the short-term emissions prior to the proposed 2020 and 2028 closure dates would be higher than DEQ's proposed controls. DEQ agrees this would be counter-productive to efforts over recent years to improve visibility in the Gorge.* *d) As stated in this document, DEQ does not support PGE's proposal.*

III. Specific Comments on the Contents of the Oregon Regional Haze Plan.

A. Chapter 5 – Basic Plan Elements.

30. Natural Conditions in 2064	a) DEQ estimate of "natural conditions" in 2064 is based on reliance on EPA guidance, but DEQ does not explain how it applied that guidance or estimated this value. (17)
Response	*a) DEQ did rely on EPA's 2003 "Guidance for Estimate Natural Visibility Conditions under the Regional Haze Rule" for obtaining values representative of natural conditions for the 20% worst and 20% best days. DEQ agrees with the comment that a State can "refine" these estimates based on its own analysis of natural conditions for the Class I areas within its borders. DEQ chose not to consider any refinement to these estimates for several reasons: (1) DEQ believes EPA's estimates are scientifically sound and generally accurate, given the limitations in estimating "pre-manmade impairment" visibility conditions, (2) DEQ acknowledges it does not have the technical expertise to conduct such an analysis; (3) re-evaluating EPA's estimates of natural conditions would be a major scientific study,(4) for the first regional haze plan, using the EPA "default values" is acceptable to DEQ, and (5) as regional haze plan updates are made over the next 60 years, it's likely new science and estimation techniques may lead to revisions of these estimates of natural conditions.*

B. Chapter 8 – Emission Source Inventory.	
31. Emission tables	a) The emission tables in this chapter do not reflect emission reductions from Oregon's BART process. (53)
Response	a) *The emission tables in this chapter reflect the emissions information available at the time the Oregon Regional Haze Plan was being developed. Oregon, similar to other Western states, used the emissions inventory from the WRAP Technical Support System, which consisted of Plan 02d emissions (2000-2004 baseline) and PRP18a (2018 projection). PRP18a reflects emission estimates from national "on-the-books" regulations and the future year 2018 projected emissions, and included estimated emission reductions for BART, but for electric generating units (power plants) only, and only SO_2 controls, no other pollutant. The WRAP is preparing a PRP18b emissions update, which will reflect BART emission reductions across the West, including Oregon. DEQ will add this information as part of its 2013 plan update, as well as any other relevant emission inventory adjustments. It should be noted that updating regional haze plan emission inventories will be a routine process as future plan updates are made.*
32. Ammonia emissions	a) This chapter describes ammonia emissions and sources, but the plan does not include any measures to control sources of ammonia. (17)
Response	a) *DEQ cites in this chapter that ammonia emissions play a key role in the formation of haze. However, as stated on page 87, estimates of ammonia emissions have a high degree of uncertainty, and as a result not much is known on the extent ammonia sources currently contribute to regional haze in Oregon. DEQ has been studying ammonia emissions from animal feeding operations through the Oregon Dairy Task Force, which may lead to possible Best Management Practices (BMPs) to reduce these emissions. Improvements and refinements to ammonia emission inventories are expected in the future. The next regional haze progress report in 2013 will provide an update on efforts to improve ammonia emission inventories and ammonia source contributions to regional haze.*
C. Chapter 9 – Source Apportionment.	
33. Biogenic emissions	a) Include a discussion of the contribution of secondary biogenic emissions to organic carbon, based on WRAP TSS organic tracer modeling results. (50)
Response	a) *DEQ agrees biogenic emissions contribute to regional haze, and that adding this information to the plan would be useful in showing the extent of the contribution of natural sources (biogenics and wildfire) to high organic carbon levels in the summer months. However, DEQ had to make certain decisions on what information could reasonably be included in this plan, and placed greater priority on addressing man-made (anthropogenic) sources, which are "controllable", instead of natural sources, which are mostly uncontrollable. Future updates to the regional haze plan will attempt to add this information to the plan.*
34. PSAT vs. WEP techniques	a) Sulfate and nitrate contributions to haze are summarized using PM Source Apportionment Technology (PSAT) tool. DEQ should include Weighted Emissions Potential (WEP) tool as well. (53)
Response	a) *DEQ believes PSAT is a better tool than WEP for identifying the contribution of sulfates and nitrates to Oregon Class I areas, because (1) PSAT accounts for atmospheric chemistry and deposition, while WEP does not, (2) PSAT is better at identifying the regional contribution of sources from outside the WRAP region, and (3) PSAT is the better tool for identifying anthropogenic sources. The results from the*

	WEP analysis were used primarily to identify the pollutants more commonly associated with non-anthropogenic (natural) sources. Appendix B of the plan does include some WEP information for sulfates and nitrates in the form of maps which show the location and transport of each pollutant and its potential contribution to the 20% worst days at each Class I area.
D. Chapter 10 – BART Evaluation	
35. BART process	a) DEQ's process for determining BART sources was under protective, by not making all BART-eligible sources subject to a BART evaluation. (17)
Response	a) *EPA's BART rules were adopted to address older sources that came into operation prior to 1977 when New Source Review (NSR) rules were adopted. The BART rules and EPA guidance identify a 3-step process for evaluating these older sources: (1) determining BART-eligibility; (2) modeling Class I area visibility impacts; and (3) conducting a BART control evaluation for sources with a "significant" impact. Legally, it is correct that States have the option to skip step 2 and make a finding that all BART-eligible sources should be evaluated for BART. However, DEQ believes that prior to evaluating BART controls for a source, it is important to first determine the extent of the visibility impact in any Class I area. This approach is nearly identical with NSR rules that require similar visibility impact modeling. While it is correct DEQ had the choice to subject all BART-eligible sources to a BART evaluation, we decided not to pursue this option. This "3-step" approach to BART is consistent with actions taken by other States across the country for evaluating BART sources.*
36. BART Modeling	a) The BART modeling protocol that was developed by DEQ for modeling BART sources was done without public involvement. (17) b) DEQ's choice of the metric for modeling visibility impacts from BART sources was under protective. (17) c) DEQ's should not have used the "98th percentile" in its' BART modeling for determining sources "subject to BART". (17) d) DEQ's use of the maximum 24-hour actual emissions in its modeling understates potential haze impacts. DEQ should have modeled the sources at the permitted level, taking into account periods of startup, shutdown, and malfunction. (17)
Response	a) *DEQ used a BART Modeling Protocol that was developed jointly by Oregon, Idaho and Washington, including Federal Land Managers (National Park Service and U.S. Forest Service), and EPA Region 10, based on EPA Guidelines for BART Determinations under the Regional Haze Rule (Appendix Y). The development of technical protocol is normally not a public process. The opportunity for comment on the technical aspects of DEQ's work (in this case, dispersion modeling) is when the results of that work is made available to the public for review.* b) *DEQ chose 0.5 dv as the metric for the "significance level", consistent with EPA's BART modeling guidance. This decision was based on several factors: (1) it equates to the 5% extinction threshold for new sources under NSR rules, (2) is consistent with the threshold selected by other States across the country,(3) it represents the limit of perceptible change, and (4) there was no clear rationale or justification for selecting a lower level.* c) *The use of the 98th percentile follows EPA's recommended approach for modeling BART sources. The 98th percentile is a frequently used cutoff in modeling where there are measurement limitations, and certain model assumptions and uncertainties involved.* d) *Use of the maximum 24-hour actual emissions, similar to the 98th percentile, was based on the above BART Modeling Protocol.*

37. BART-eligibility	a) DEQ excluded Oregon Steel Mills from the BART-eligible list as a "reconstructed source", without indicating if the source was subject to New Source Review. (17) b) DEQ excluded the SFPP Eugene Gasoline Bulk Terminal from the BART-eligible list even though it met all applicable criteria. (17)
Response	*a) Oregon Steel Mills met the definition of a "reconstructed source" under EPA's guidelines for identifying BART-eligible sources (40 CFR 51.308, Appendix Y, II, How to Identify BART-Eligible Sources). The guidance defines reconstruction as when "the fixed capital cost of the new component exceeds 50 percent of the fixed capital cost of a comparable entirely new source." In the case of Oregon Steel Mills, the emission unit that was being reviewed for BART-eligibility went through a reconstruction as defined above. However, this reconstruction resulted in a net decrease in emissions, and did not represent a major modification, which would have triggered New Source Review (NSR). The specific emission unit is also currently shut down. It should be noted the definition of a reconstructed source does not cite NSR as a prerequisite in meeting this definition for determining BART-eligibility. This is in contrast to the definition of a "modification" in the next section of Appendix Y, which does cite NSR in making this determination.* *b) In fact, it specifically states that "any emissions unit for which reconstruction commenced after August 7, 1977, is not BART-eligible." This is in contrast to the definition of a "modification" in the next section of Appendix Y, which does reference New Source Review as a factor in defining this term.* *c) EPA's guidelines for identifying BART-eligible sources allow VOC sources to be excluded from BART due to the difficulty to model VOC emissions. The SFPP terminal meets the BART criteria for only VOC. Rather than choosing to immediately exclude the source, DEQ applied a screening model that treated 50% of the VOC emissions as being greater than six carbon atoms and equivalent to organic carbon (OC) for visibility modeling purposes. Results of the conservative modeling analysis showed visibility impact well under the significant visibility impact level of 0.5 deciview.*
E. Chapter 11 – Reasonable Progress Goal Demonstration.	
38. The 4-Factor Analysis	a) The 4-factor analysis for non-BART source categories shows some very cost-effective measures, yet DEQ concluded it is not reasonable to require controls for these sources at this time. Please explain why. (50)(53)
Response	*a) As noted on page 161 of the plan, in conducting this four-factor analysis, EPA guidance indicates that States have "considerable flexibility" in how these factors are taken into consideration, in terms of what sources or source categories should be included in the analysis, and what additional control measures are reasonable. DEQ's analysis provided useful information on possible control options and general costs, but was too preliminary to determine actual controls that would be reasonable at this time. A more in-depth evaluation of non-BART sources will take place as part of the Long-Term Strategy of the plan. The first step in this evaluation will be to develop guidance for conducting a comprehensive review of these sources. The 2013 plan update will contain a report summarizing the development of the guidance and its application to non-BART sources, including estimates of additional emission reductions that may result from installation of new controls for these sources.*
39. Redo years to reach Natural Conditions	a) Since the Reasonable Progress Goals (RPGs) in the plan do not meet the 2018 Milestone, DEQ is required to provide an assessment of how many years it would take to attain natural conditions. (50)
Response	*a) Under the regional haze rule the State may determine RPGs at greater, lesser or equivalent visibility improvement than the uniform rate of progress to meet natural conditions in 2064. In cases where the RPG results in a slower rate of improvement by*

	2018, the State must demonstrate why the uniform rate of progress "is not achievable", and then show how many years it would take to attain natural conditions. However, DEQ concluded it would be premature to assume that uniform rate of progress is not achievable, based solely on the initial estimates of progress in the first regional haze plan. New measures contained in the Long-Term Strategy may produce significant visibility improvements by 2018, including the evaluations of non-BART sources and forestry prescribed burning. Further analysis of the RPGs in this plan will be included as part of the progress reporting required for the 2013 plan update.
F. Chapter 12 – Long-Term Strategy.	
40. Non-BART source evaluation	a) This evaluation should include looking at cumulative source impacts and modeling from a grouping of industrial sources. (50)(53) b) The USFS would like to participate in the development of the guidance for this evaluation. (50)
Response	*a) On page 200 of the plan, the list of factors to be considered in developing the guidance for evaluating non-BART sources includes cumulative impacts (see #4).* *b) DEQ will be developing comprehensive guidance to conduct this evaluation, and intends to include the USFS and other key stakeholders.*
41. Prescribed Forestry Burning evaluation	a) The plan should acknowledge and include an assessment of the benefits or "tradeoff value" of forestry prescribed burning in reducing wildfires and their impacts on visibility. (45)(46)(50)(53) b) The methodology proposed to evaluate the contribution of forestry burning has some inherent biases and uncertainties that may result in artificial attribution to this source. (45) c) The analysis should look at year-round impacts rather than spring and fall months. (46) d) Should include an evaluation of wildfire impacts, and compare to forestry burning impacts. (45)(46)(60) e) Need to involve Oregon Department of Forestry and interested forest landowner representatives in the discussions, evaluation, analysis design and conclusions of current conditions and possible policy changes. (45)(56) f) Initiate voluntary measures rather than mandatory, if deemed necessary upon completion of the analysis. (46) g) Page 193 states that the evaluation of prescribed burning will determine "if additional smoke management techniques "can be developed". This should say instead "may be required". (45) h) The evaluation of prescribed burning should not just be limited to this type of burning, but should consider all burning. (45) i) The evaluation of prescribed burning should include a meteorological analysis first. (45) j) Page 203 refers to adopting "basic" smoke management techniques, if additional smoke protection is found to be needed. It does not make sense to add basic smoke management to an already "enhanced" program. (53) k) DEQ should look at reducing man-made burning, such forestry and agricultural burning to improve visibility, as this burning occurs close to Class I areas.(66)(74)
Response	*a) While there are clearly benefits to visibility by the use of prescribed burning to minimize both the frequency and magnitude of wildfire, those benefits could be very long-term, and extremely difficult to quantify. DEQ is not aware of any way to estimate those benefits with any reasonable accuracy from a regional haze improvement standpoint. The process of restoring forest ecosystems through increased use of*

	prescribed fire and other practices may take 50 to 100 years. In theory this will reduce wildfire emissions and improve visibility over the long run. However, in the near term prescribed burning can have significant visibility impacts in Class I areas. Should any new information come forward that could be used to reasonably estimate visibility benefits from this tradeoff, DEQ would include this in future plan updates. b) *The methodology described in the plan for conducting this evaluation is general methodology, and as such is considered preliminary. The development of the "final methodology" will occur in consultation with ODF, federal land managers, and other forest stakeholders.* c) *As noted in the plan, the reason for evaluating prescribed burning impacts in the spring and fall months rather than year-round is due to monitoring data that shows a sizable contribution of organic and elemental carbon (a strong indicator of fire sources), and the fact that most prescribed burning takes place during these two seasons.* d) *The need for this evaluation of prescribed burning is to determine if additional smoke management protection is needed for Class I areas. Including an evaluation of wildfire impacts would not be the best use of available time and resources, as these are natural events not subject to smoke management control.* e) *It is DEQ's intention that the evaluation of prescribed burning, including discussion, conclusions, and policy changes, will be conducted in coordination with ODF, federal land managers, and other stakeholders.* f) *One of the outcomes discussed in the plan is the possible identification of additional smoke management measures to protect Class I areas. No decision has been made whether these would be voluntary or mandatory measures.* g) *DEQ agrees that the language on page 193 should be changed from "can be developed" to "may be required", and has made this revision.* h) *The focus on prescribed burning over other types of burning is based on the fact that this is the largest man-made source of vegetative burning in Oregon, and that there are indications it may be a significant contributor to Class I visibility impacts in the spring and fall. Since it is already subject to a statewide smoke management program, evaluating its contribution, and adopting additional controls if found to be needed, is a logical step. The next two sections of the plan describe how DEQ will be evaluating the contribution of residential open burning and rangeland burning.* i) *A meteorological analysis will be conducted as part of this evaluation.* j) *The reference on page 203 to "basic" smoke management techniques should not be confused with "enhanced" smoke management program criteria, but instead refers to the application of the basic principles of smoke management (wind direction and speed, mixing height, relative humidity, lighting techniques, etc.) when burning upwind of an area you are trying to protect from smoke. As stated in the plan, the objective would be to "avoid burning that could cause a prolonged smoke intrusion and heavy smoke concentrations, resulting in a 20% worst day impact." This is different from more advanced smoke management techniques, where the primary objective is to avoid causing <u>any</u> smoke from entering a smoke protected area.* k) *DEQ is looking primarily at forestry, as stated above in (h), due to the large amount of this burning that currently takes place near Class I areas. DEQ will also be evaluating the contribution of residential open burning and rangeland burning.*
42. Rangeland burning	a) The same evaluation of rangeland burning should be made as is being proposed for prescribed burning. (53)
Response	a) *Section 12.6.4 on page 205 states that DEQ will conduct an evaluation of rangeland burning. This evaluation will be different than the prescribed burning evaluation due to the reasons described in this section, related to the current lack of smoke management regulation of this activity and uncertainty as to the amount of this burning*

	that is occurring.
43. Area sources of organic carbon	a) There is no mention in the long-term strategy of how the State intends to address area sources of organic carbon, which is one of the largest contributors to haze, especially in the Oregon Cascades. (50)
Response	a) *In general, fire emissions (both natural and anthropogenic) are the largest sources of organic carbon affecting haze in Oregon. However, in the northern Cascades, area sources of organic carbon are larger contributors to haze than fire. This is likely due to the influence of the Portland urban area. However, DEQ was unable to conduct an analysis of this prior to completing this plan. Moreover, DEQ was not aware of any measures to add to the Long-Term Strategy that could significantly reduce area source organic carbon. To the extent residential woodstove burning in Portland may be the primary contributor to organic carbon impacts, the Oregon Regional Haze Plan in Section 12.5.1 describes how DEQ residential woodheating rules are an effective on-going measure in reducing particulate matter, and thus organic carbon as well.*
44. Crustal material (wind-blown dust)	a) Wind-blown dust is not only a natural source but also an anthropogenic source, and should be addressed under the long-term strategy. (50)
Response	a) *DEQ agrees anthropogenic wind-blown dust is a significant source. DEQ does describe in Section 12.5.2 ongoing measures and rules currently in place in Oregon to mitigate dust impacts from construction activities. In terms of new measures to address this source, DEQ was unable to identify any new measures to add to the long-term strategy that could significantly reduce emissions from this source category.*
45. Sulfates from area sources	a) Sulfates from area sources have been implicated as a significant source of haze and should be addressed under the long-term strategy. (50)
Response	a) *DEQ agrees that area sources of sulfates are significant, and describes in Section 8.2.2 of the plan that off-shore marine shipping emissions may be a major contributor of sulfates to haze in Oregon. Section 9.2.1 shows that PSAT results show pacific offshore area emissions are likely much greater than any other area source of sulfates. For this reason, Section 12.6.5 of the long-term strategy describes efforts DEQ will take to address this source.*

IV. Other Comments and Issues Raised during this proposed Rulemaking	
46. Address more than regional haze	a) This rulemaking needs to be more comprehensive than regional haze. It should also address public health, acid rain, and/or other environmental Impacts. (6)(7)(8)(9)(10)(15)(16)(70)(75)(77)(82)(145)(165)
Response	a) *DEQ recognizes these concerns. The primary purpose of this rulemaking is to meet the requirements of the federal Regional Haze Rule, related to improving visibility in Class I areas. As such, the regulatory scope of this rulemaking is narrow by design. DEQ's Air Quality Division conducts other rulemakings directed at protecting public health and meeting the requirements of the Clean Air Act. However, it should be noted that as a secondary benefit of this rulemaking, DEQ expects that the reduction of approximately 21,000 tons per year from PGE Boardman will have public health benefits, and reduce acid deposition and other environmental degradation.*
47. Columbia River Gorge	a) This rulemaking should address visibility problems in the Columbia River Gorge National Scenic Area. (7)(8)(11)(17)(19)(21)(81)(82)(87)(96)(118)(147)(163)**(168)** b) PGE Boardman is the largest single polluter of the Columbia Gorge Scenic Area. (17)

	(19)(21)(18)(50)(86)(87)(88)(98)(100)(101)(161) c) Air pollution from this power plant significantly degrades the views in the Gorge that bring local residents and tourists to the area to enjoy its beauty.(80)(81)(88) d) It is hard to believe that PGE Boardman, being more than 60 miles east of the east end of the Gorge, could have any effect on the haze in the Gorge. Increasing vehicular traffic, trains, and barges are more likely contributors. (102) e) Steps should be taken to reduce PGE Boardman impacts on tribal cultural resources in the Columbia River Gorge. (1)(2)(3)(72)(88) f) As a resident of the Columbia River Gorge, visible haze within the Gorge is noticeable about 90% of the time. (146)
Response	• *As stated above, the primary purpose of this proposed rulemaking is to meet the federal Regional Haze Rule, related to improving visibility in national parks and wilderness areas designated as "Class I areas" by Congress in 1977. Oregon has 12 Class I areas. The Columbia River Gorge is not a designated Class I area. However, DEQ modeling analysis shows that the visibility benefits to Oregon's Class I areas will also benefit the Columbia River Gorge. The Mt. Hood Class I Area, which is 25 miles south of the Gorge, will see significant visibility benefits as a result of the controls for the PGE Boardman plant proposed under this proposed rulemaking. These controls will reduce Boardman's emissions by 21,000 tons per year. This will not only provided visibility benefits for the Gorge, but will reduce air pollution and acid deposition, and provide other benefits to the environment and public health.*
48. PGE Boardman mercury emissions	a) PGE Boardman is major source of mercury emissions and as such a health threat. (15)(17)(19)(20)(21)(73) b) The Boardman plant is the second largest mercury emitter in the state and PGE needs to take steps to control mercury emissions (88)(155) c) PGE Boardman's annual mercury release is enough to contaminate 2.6 million acres of lakes, four times the surface area of all the lakes in Oregon. This is unacceptable.(97)(142) d) DEQ should insist that already planned and required mercury pollution reductions occur on schedule. (10)(96)(97)(98)(104)(109)(113)(118)(125)(126)(132)(142)(155)(161)(167)**(168)(169)** e) If PGE chooses to shut down rather than clean up, DEQ must require PGE to reduce mercury pollution by 90% by - or before the regulatory deadline of 2012. (135)
Response	• *In 2006, DEQ adopted mercury rules that require PGE Boardman to reduce mercury emissions by 90% in 2012. The regional haze controls that are proposed for the Boardman plant does not change that compliance date. However, DEQ is proposing to change the compliance extension contingency in the Mercury rule from 1 to 2 years, to align with the installation of SO_2 controls. See DEQ response #14.*
49. Close PGE Boardman	a) Close the Boardman coal plant now. (14)(15)(70)(73)(87) (89)(90)(101)(109)(110)(131)(139)(141)(144)(165)(166) b) Close the Boardman plant as soon as possible and replace with cleaner "green" technologies. (67)(68)(73)(112)(145)(160) c) DEQ should close the Boardman coal plant by 2020 or before, and replace with energy from renewable sources such as wind, solar, and wave power. (143)
Response	• *The decision to close the plant, or replace it with a more "green" technology is a decision for PGE to make. Having said that, the emission controls being proposed by DEQ will reduce the plant's emissions by 81 %, or approximately 21,000 tons of air pollution per year. This is a significant reduction in emissions that will have major benefits to the environment.*
50. Impacts on	a) PGE Boardman's emissions are a concern due to their impact on cultural resources

cultural resources	(1)(2)(3)(50)(72)
Response	a) *As mentioned above, the emission controls being proposed for PGE Boardman will reduce approximately 21,000 tons of air pollution per year, which is expected to provide benefits to cultural resources.*
51. PGE Boardman should have installed "BACT" controls	a) The PGE Boardman plant was not "in existence" prior to 1977, and as such is not a BART source, but rather should have been subject to New Source Review requirements that apply after 1977, and should have installed Best Available Control Technology. (17) (145) b) PGE has undergone modifications that should have triggered NSR and installed BACT controls. (17)(19)(21)(145) c) DEQ should take BACT controls into account when deciding on appropriate BART controls. (54) d) On September 30, 2008, Pacific Environmental Advocacy Center filed a lawsuit in the Federal District Court of Oregon against PGE Boardman for violations of the Clean Air Act. (17)(71)
Response	a) *DEQ believes PGE Boardman was in existence prior to 1977, and therefore fell under the basic criteria for being evaluated under BART. PGE entered into a contractual obligation to purchase major components of the plant in 1975 and obtained necessary pre-construction permits prior to August 7, 1977. Therefore , the plant was in existence for purposes of the BART rule in accordance with Step 2 of Section II of Appendix Y to 40 CFR, Part 51 (EPA's BART Guidelines) .* b) *Although not relevant to this rulemaking, DEQ does not believe that PGE has made modifications to the Boardman plant that would make it subject to New Source Review.* c) *A BACT analysis is required for new or modified sources subject to Prevention of Significant Deterioration (PSD). DEQ believes that if Congress had intended that the BACT analysis be applied to sources in operation between 1962 and 1977 as part of the regional haze program, BACT would have been specified in the Clean Air Act instead of BART. Even though BACT was not specified by the CAA, many of the same types of control technologies that would qualify as BACT were considered in DEQ's BART analysis.* d) *In regards to the lawsuit cited above, DEQ does not believe it appropriate to comment on this legal matter at this time.*
52. Replacement power	a) Plan does not address replacement power if Boardman were to shutdown. (38)(40)(60)(69)(114) b) DEQ should evaluate how new rules and regulations may impact Oregon's supply of electricity. (60) c) Coordination between DEQ, the Oregon PUC, and Oregon Dept. of Energy should occur prior to adoption of these rules. (60)
Response	a) *DEQ is required to conduct a fiscal and economic impact analysis on the costs related to the rulemaking it proposes. Decisions that PGE may make in the future about replacement power, should Boardman close, is beyond the scope of this rulemaking.* b) *Decisions that PGE might make in the future regarding Oregon's energy supply needs is beyond the scope of this proposed rulemaking.* c) *DEQ was involved in discussions with the PUC and PGE during the development of this proposed rulemaking, on the general energy implications associated with the proposed controls for the Boardman plant.*
53. Data used in the Plan	a) The technical data and work products that DEQ relied upon to develop this plan was from the WRAP, however the public was not consulted or included in the WRAP and therefore did not have an opportunity to formally comment on this information. (17) b) Did DEQ fully consider the contribution to haze from diesel trucks, home woodstoves,

	and wildfire? (164)
Response	a) *There is vast amount of data and information that is needed for preparing a regional haze plan. DEQ relied on the Western Regional Air Partnership (WRAP), which is one of several regional planning organizations in the country that is providing assistance to States preparing regional haze plans. Oregon is one of 13 western states participating in the WRAP. Other participants in the WRAP include regulators, industry, environmental groups, scientists, and the general public. The WRAP Technical Support System (TSS) was the source for the majority of technical information used in the Oregon Regional Haze Plan. The TSS summarizes results and consolidates information about air quality monitoring, meteorological and receptor modeling data analyses, emissions inventories and models, and gridded air quality/visibility regional modeling simulations. This information is available and can be reviewed on the WRAP TSS website, and can be evaluated by the public. This approach is similar to other rulemaking where DEQ relies on external data sources, studies, projects, and research.* b) *Yes, DEQ did consider the contribution to haze from these sources, under Section 12.5.1 of the Long-Term Strategy of the Plan. Page 190 discusses state and federal regulations of diesel vehicles. Page 191 discusses DEQ's woodheating regulations and possible benefits to regional haze. In terms of wildfire, there is considerable data presented to support that wildfire is a significant emissions source and major contributor to haze in Oregon. The Long-Term Strategy describes how controlled burning is being used to minimize wildfires, and page 196 describes Enhanced Smoke Management Program requirements to minimize controlled forestry burning impacts on haze.*
54. Global Warming	a) DEQ should adopt limits on CO2 emissions now for PGE Boardman, as part of this rulemaking. (4)(17)(64) b) Boardman is the largest stationary source of air pollution and greenhouse gases in the state of Oregon yet the plant has no modern pollution control devices. (64)(97) c) PGE Boardman is one of the largest industrial sources of air pollution in the State, including greenhouse gases. (10)(14)(15)(17)(55)(101)(141) d) This plant should be closed down unless it can capture and store carbon dioxide. (141) e) A Harvard study estimates that 180 billion tons/yr of CO2 comes from natural sources, while only 6 billion tons/yr comes from human activity. Even the most aggressive rules for limiting industrial CO2 will have negligible effect on global warming. (164)
Response	• *As noted above, this rulemaking is intended to meet the requirements of the federal Regional Haze Rule. DEQ will be addressing global warming in the near future, as state and national efforts to develop carbon regulations progress.*
55. Comments on coal burning	a) There is no such thing as "clean coal". (10)(15)(164) b) The future of energy is changing and now isn't the time to spend millions of dollars on another coal plant. Take this opportunity to say no to coal. (154) c) There is no real technology that will make coal a viable "clean" option for energy. (83) d) Coal plants like PGE Boardman are out of date. Please make moves to replace it with renewable energy. (137) e) Coal is plentiful and very economical compared to other fuels, and is reliable for base load applications. Emissions from coal burning can be effectively controlled. (99) f) Coal is a low cost energy source that provides a solid economic benefit to all Oregonians. (150) g) Coal is important to our future, as alternative power sources are not enough. (66)(111) h) Wasco County voters rejected a proposal two years to invest in new coal power plants by a whopping 81% "no" vote. (126)

Response	• *DEQ agrees there are other cleaner sources of electricity than coal, such as natural gas, wind, and solar energy. Decisions regarding the future of coal use, or the continued operation of the PGE Boardman plant, are beyond the scope of this rulemaking.*
56. Fly ash bi-product	a) The coal fly ash is an important by-product from PGE Boardman that is beneficial to our concrete production operations. (56)
Response	*a) DEQ is aware that coal fly ash is a valuable by-product that is sold for making concrete. Contamination of this fly ash is recognized as a potential issue in this proposed rulemaking. As a result, DEQ has added fly ash contamination as a reason for granting this extension. See DEQ Response #14.*

V. Miscellaneous Comments
• PGE should pursue more diverse, "greener" technologies for energy production. (4)(5)(7)(67(68)(73)
• We can take that money we are using to create pollution and funnel it into alternative energies that will reduce pollution.(89)
• Time for corporations to do match or exceed our obligation. Prevention is the only cure. (13)
• Now is the time for real change in energy options that will not endanger the planet any further. (83)
• Need to look beyond nuclear and coal power at alternatives, and take more comprehensive approach to at energy production and environmental protection. (82)
• The Boardman plant is old, outdated and does not fit into the future of clean renewable energy. (90)
• Maintaining a fuel mix that allows one fuel to take up the slack if another fuel is under supply limitations should be a prime consideration. (99)
• Please consider looking at options to increase the cost of heavily polluting forms of energy generation to help develop alternative, less polluting forms of generation. (107)
• I support renewable energy like wind and solar power, over coal and oil, even at a fairly high economic cost. Renewable energy has a low cost once the plants or windmills are built.(112)
• CO2 emissions from coal plants are several times higher than emissions from all other power generating sources, and coal mining is environmentally destructive, and massive rail shipments to the plant from remote mining operations is grossly inefficient. (146)
• This rulemaking should reflect not only the visibility and air quality, but also the quality of life, the financial impact, the stability of electric transmission in the Northwest, and keep in mind the individual consumer, automobile traffic, and general public involvement in environmental stewardship. (116)
• The policies of the regulatory agencies should be reviewed and they should be prosecuted for their negligence. (87)
• Autism rates in the Columbia Gorge autism rates are higher than average, and emissions from PGE Boardman could be why. (75)
• The economics of electricity production generally need to be predictable and relatively stable.(99)
• Our air and water has been polluted by this plant and it has had serious health consequences for many in this area.(92)
• Please force this company to operate legally so that we all might breathe cleaner air and worry a little less about the amount of mercury in our water supply. (152)
• There are always unknowns and it is hard to predict the future, but when it comes to pollution and its effects on life, we need to do what's right today and not wait for something better or different to turn up. (86, 125)
• We have haze now and then, but it is not a problem, and most of the haze is caused by forest fires, not any other predominant source. (121)

• Please help these guys, a compromise will require a better pollution standard, better filter and converting from coal to wood burning, carbon sustainable. (124)
• PGE is a big asset to Morrow County with a fairly big tax base. I have worked for PGE for 29 years and in those years PGE has continuously upgraded this plant to the newer standards. (153)
• If PGE can't see their way clear to do the right thing, then it's time to get serious about a CUB.(135)
• This kind of blatant and excessive pollution belongs in our past. There is no reason, other than greed for profit, to be dumping this much coal smoke into our air. (136)
• Operating with no pollution control devices because of its construction prior to the Clean Air Act, I resent the plant's detrimental impact on the air I breathe. (146)
• DEQ has not adequately assessed or provided the public with the complete picture of PGE Boardman's compliance history. (145)
• DEQ has a fiduciary obligation to all Oregonians to protect this airshed. DEQ should begin regulating the plant pursuant to the Mass. v. EPA authority.(141)
• It does not make sense to wait to clean up the biggest source of air pollution in the state of Oregon. Do the biggest first and then do the rest successively from largest to smallest until the process is complete. (149)
• Our family supports tough environmental laws regarding the Boardman coal-fired plant owned by PGE. I write this as both a concerned citizen and as a stockholder of PGE.(151)

List of People and Organizations Submitting Comments (by Commenter Number)

Letters
Letters includes written comments received by mail, at public hearings, and attached to emails.

Ref. No.	Name	Location	Affiliation or Organization	Submit Date
1.	Ralph Sampson, Jr. Tribal Council Chairman	Pendleton	Confederated Tribes and Bands of the Yakima Nation	1/30/2009
2.	Samuel N. Penney Chairman	Lapwai, ID	Nez Perce Tribal Executive Committee	1/30/2009
3.	Antone Minthorn John Cox	Toppenish, WA	Confederated Tribes of the Umatilla Indian Nation	1/30/2009
4.	Jurgen A. Hess	Hood River		1/13/2009
5.	Tom Garefalo	(not stated)		1/26/2009
6.	Emily S. St. John	Lake Oswego		1/07/2009
7.	Cynthia Hovezak	Carson, WA		1/23/2009
8.	Tom Wood	The Dalles		1/23/2009
9.	Tassy Mack	Hood River		1/23/2009
10.	Robin Bloomgarden	Portland		1/07/2009
11.	Susan Gabay	Mosier		1/26/2009
12.	Arlen L. Sheldrake	Portland		1/27/2009
13.	John Wood	Hood River		1/26/2009
14.	Hugh B. McMahan	Mount Hood		1/29/2009
15.	Judith Werner	Lake Oswego		1/30/2009
16.	Phil Swaim & Sheila Dooley	The Dalles		1/28/2009
17.	Aubrey E. Baldwin [2] Allison LaPlante Tom Buchele	Portland	Pacific Environmental Advocacy Group	1/30/2009
18.	Joyce Reinig, Chair	White Salmon, WA	Columbia River Gorge Commission	1/29/2009
19.	Peter Cornelison, President	Hood River	Hood River Valley Residents Committee	1/13/2009
20.	Maye Thompson	Portland	Oregon Physicians for Social Responsibility	1/26/2009
21.	Michael Lang	Portland	Friends of the Columbia Gorge	1/6/2009
22.	Arya Behbehani-Divers [2] Ray Hendricks	Portland	Portland General Electric Company	12/17/2008 1/30/2009
23.	Sandra McDonough President & CEO	Portland	Portland Business Alliance	1/26/2009
24.	John Ledger Vice President	Salem	Associated Oregon Industries	1/29/2009
25.	Ted Ferrioli State Senator	Salem	Oregon State Senate	1/22/2009
26.	David Nelson State Senator	Salem	Oregon State Senate	1/26/2009
27.	Gary Neal General Manager	Boardman	Port of Morrow	1/12/2009
28.	Lee Beyer, Chairman John Savage, Commissioner Ray Baum, Commissioner	Salem	Public Utilities Commission	1/27/2009

29.	Jean DeMaster Executive Director	Portland	Human Solutions, Inc.	1/30/2009
30.	Jack Scott General Manager	Portland	Eagle Foundry Company	1/23/2009
31.	Raymond Burstedt President	Portland	SEDCOR	1/21/2009
32.	Travis Eri Business Manager	Portland	International Brotherhood of Electrical Workers, Local 125	1/26/2009
33.	Robert Ford President & CEO	Portland	Solaicx	1/26/2009
34.	Corky Collier Executive Director	Portland	Columbia Corridor Association	1/28/2009
35.	Brian Konen Plant Manager	West Linn	West Linn Paper Company	1/28/2009
36.	John M. Endicott President	Portland	Building & Construction Trades Council	1/29/2009
37.	Clif Davis Business Manager	Portland	International Brotherhood of Electrical Workers, Local 48	1/29/2009
38.	Carla McLane Planning Director	Irrigon	Morrow County Planning Department	1/30/2009
39.	Tom Chamberlain President	Salem	Oregon AFL-CIO	1/29/2009
40.	Matt Felton President	Portland	Westside Economic Alliance	1/28/2009
41.	Ryan Deckert President	Tigard	Oregon Business Association	1/29/2009
42.	Bob Jenks Executive Director	Portland	Citizen's Utility Board of Oregon	1/30/2009
43.	Michael T. McLaran CEO	Salem	Salem Chamber of Commerce	1/29/2009
44.	Michael B. Early Executive Director	Portland	Industrial Customers of Northwest Utilities	1/30/2009
45.	Jim Trost	Salem	Oregon Department of Forestry	1/28/2009
46.	Mike Dykzeul Director Forest. Protection	Salem	Oregon Forest Industries Council	1/27/2009
47.	Richard Albright Director Mahbubul Islam Director	Seattle, WA	EPA Region 10	12/11/2008 1/30/2009
48.	Jean M. Hadley	Mosier	City of Mosier	1/25/2009
49.	Arthur Babitz Mayor	Hood River	City of Hood River	1/27/2009
50.	Mary Wagner Regional Forester	Portland	U.S. Forest Service Pacific Northwest Region	1/29/2009
51.	Robert D. Elliot Executive Director	Vancouver, WA	Southwest Clean Air Agency	1/6/2009
52.	John Bunyak [2] Chief, Policy, Planning and Permit Review Branch	Denver, CO	National Park Service	1/30/2009
53.	Christine L. Shaver [2] Chief, Air Resources Division Sandra V. Silva Chief, Branch of Air Quality	Denver, CO	National Park Service U.S. Fish & Wildlife Service	1/30/2009
54.	Kevin Lynch [2]	Boulder, CO	Environmental Defense Fund	1/30/2009

	Stephanie Kodish	Knoxville, TN	National Parks Conservation Association	
55.	Sallie Schullinger-Krause Program Director	Portland	Oregon Environmental Council	1/30/2009
56.	Keith Peal	Beaverton	Baker Rock Resources	1/27/2009
57.	Lee Elwood	(not stated)		1/12/2009
58.	Scott Starr	Wilsonville	Wilsonville Chamber of Commerce	1/27/2009
59.	Deanna Palm	Hillsboro	Greater Hillsboro Area Chamber of Commerce	1/27/2009
60.	Tamra J. Mabbott	Hermiston		1/29/2009
61.	Roger W. Rees Executive Director	Tualatin	Oregon Home Energy Assistance Team (HEAT)	1/29/2009
	Oral Testimony Location represents the site of the public hearing. Those who provided written and oral testimony are listed under Letters. For complete list of all who testified, see Attachment C *DEQ Hearing Officer's Report on Public Hearings*.			
62.	Tom Wood	Portland	Associated Oregon Industries	1/6/2009
63.	Andrew Hawley	Portland	Northwest Environmental Defense Council	1/6/2009
64.	Brian Pasko	Portland	Sierra Club	1/6/2009
65.	Alan T. Edwards	Portland		1/6/2009
66.	Gordon Fulks	Portland		1/6/2009
67.	Jan Groh	Portland		1/6/2009
68.	David Rupar	Portland		1/6/2009
69.	Terry Tallman	Hermiston	Morrow County Judge	1/12/2009
70.	Joseph Kelsey	The Dalles		1/13/2009
71.	Lauren Goldberg	The Dalles	Columbia Riverkeeper	1/13/2009
72.	Rachael Pecore	The Dalles	Columbia Riverkeeper	1/13/2009
73.	David Berger	The Dalles	Oregon Conservancy Foundation	1/13/2009
74.	Dan Richardson	The Dalles		1/13/2009
75.	Jodi Tepoel	The Dalles		1/13/2009
76.	John Carstensen	The Dalles	Idaho Power Company	1/13/2009
77.	Jules Burton	The Dalles		1/13/2009
78.	Mark Nelson	The Dalles		1/13/2009
79.	Jessica Kinder	The Dalles		1/13/2009
80.	Rosemary Ross	The Dalles		1/13/2009
81.	John Nelson	The Dalles		1/13/2009
82.	Joel Kabakov	The Dalles		1/13/2009
	Emails Those who provided written testimony along with an email are listed above under Letters.			
83.	Aleita Hass-Holcombe			12/26/2008
84.	Anne Moore			1/30/2009
85.	Brent Brelje			1/6/2009
86.	Carol Crawford			1/20/2009
87.	Carole L. Myers			1/25/2009
88.	Chris Carvalho			1/12/2009
89.	Cindy Allen			1/23/2009
90.	Colleen O'Donnell			1/21/2009
91.	Daniel Curtis			1/20/2009
92.	Darlene Wood			1/23/2009
93.	Darryl Usher			1/20/2009

94.	Dave Bronson		1/19/2009
95.	David Breen		1/4/2009
96.	Dr. David Farrell		1/20/2009
97.	David Mildrexler		1/19/2009
98.	David Shapiro		1/20/2009
99.	Dean Mason		1/29/2009
100.	Dean Myerson		1/28/2009
101.	Dinda Evans		1/5/2009
102.	Don Coats		1/13/2009
103.	Don Hall		1/19/2009
104.	Don Hill		1/4/2009
105.	Elke Geiger		1/26/2009
106.	Eric Swehla		12/23/2008
107.	Erik Westerholm		1/6/2009
108.	Gary J. Imbrie		1/23/2009
109.	Geert Aerts		1/19/2009
110.	George W. & Margo Earley		1/23/2009
111.	Granella Thompson		1/13/2009
112.	Heather Moore		1/22/2009
113.	Jack and Cindy Williams		1/10/2009
114.	James Wells		1/19/2009
115.	Jason Cheek		1/29/2009
116.	Jason Stillman		1/29/2009
117.	Jay W. Russell		1/6/2009
118.	Jeffrey Block		1/19/2009
119.	Jennifer Sturm		1/29/2009
120.	Jerry & Diane Cheek		1/24/2009
121.	Jerry Waters		12/23/2008
122.	Jim Minick		1/28/2009
123.	John E. McCann		12/25/2008
124.	John Gogol		1/28/2009
125.	Judith Arcana		1/19/2009
126.	Kathleen Fitzpatrick		1/3/2009
127.	Kent Buhl		1/29/2009
128.	Kris Gann		1/13/2009
129.	Kristin Anderson		1/21/2009
130.	Larry Bartlemay		1/30/2009
131.	Levin Nock		12/23/2008
132.	Louise Squire		1/12/2009
133.	Lynn Bergeron		1/27/2009
134.	Margaret Murdock		12/23/2008
135.	Marion Hansen		1/19/2009
136.	Mark Mason		1/28/2009
137.	Mary McCracken		1/9/2009
138.	Melody Shapiro		1/28/2009
139.	Michael D. Holcomb		1/29/2009
140.	Mildred Estrin		12/23/2008
141.	Mimsi Fox		1/19/2009
142.	Natalie Arndt		1/10/2009
143.	Nick Engelfried		12/26/2008
144.	Nick Kraemer		1/15/2009
145.	Nick Littlejohn		1/27/2009
146.	North Cheatham		1/29/2009

147.	Paul Woolery		1/17/2009
148.	Pat Hazlett		1/13/2009
149.	R. Moulton		1/28/2009
150.	Randy Curtis		1/29/2009
151.	Robert Hamm		1/3/2009
152.	Ron Mager		1/9/2009
153.	Ronald S Bray		1/29/2009
154.	Rose Engelfried		12/24/2008
155.	Sandra Coulson		1/14/2009
156.	Sandra Lilligren		1/8/2009
157.	Shelley Oates		1/24/2009
158.	Steve Amy		1/28/2009
159.	Steve Locke		1/6/2009
160.	Steve Snyder		1/5/2009
161.	Susan Drew		1/29/2009
162.	Teri Miller		1/8/2009
163.	Tiffany Brown		1/20/2009
164.	Tim Davidson		1/25/2009
165.	Tina Castañares		1/17/2009
166.	Tina Engelfried		12/23/2008
167.	Tony Veldhuizen		1/9/2009
168.	Group 1 - (1028 form letters) [3]		-
169.	Group 2 - (7 form letters) [3]		-
170.	Group 3 - (15 form letters) [3]		-

[2] Commenters who provided attachments (available upon request)

[3] For the list of commenters in this group, see Attachment 1 (available upon request). Numbers in **bold** reflect more than one commenter.

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

Date: January 26, 2009

To: Environmental Quality Commission

From: Brian Finneran, DEQ Air Quality Division

Subject: Presiding Officer's Report for Rulemaking Hearings

Title of Proposal: Adoption of 2008 Oregon Regional Haze Plan and New Controls for PGE Boardman Power Plant

Hearing Dates and Time: January 6, 7, 8, 12, and 13, 2009. 6:00 p.m.

Hearing Locations:
1. Portland OR, DEQ Headquarters
2. Springfield OR, Lane Regional Air Pollution Authority
3. Medford OR, DEQ Regional Office
4. Hermiston OR, Conference Center
5. The Dalles OR, Columbia Gorge Community College

The Department held five public hearings on the proposed rulemaking at the locations noted above. The following is a summary of each of these hearings.

1. January 6, 2009, DEQ Headquarters, Room EQC-A, 811 SW 6th Ave, Portland. The hearing officer was Linda Hayes-Gorman from DEQ. Also present were Kenneth Williamson, Vice Chair of the Environmental Quality Commission (EQC), Commissioners Donalda Dodson and Jane O'Keeffe, and DEQ Director Dick Pedersen. The hearing began at 6:07 p.m.

28 people signed the attendance list at the hearing. 11 people testified.

Linda Hayes-Gorman announced that she was serving as the hearing officer to this hearing. She introduced EQC Commissioner Ken Williamson who provided some introductory remarks. Ken informed the audience that the EQC was very interested to hear comments on this proposed rulemaking, and mentioned PGE submitted comments proposing "decision points" or options for shutting down the Boardman plan in the future. He said that to ensure the public had the opportunity to comment on the proposed rulemaking and PGE's proposal, the public comment period was extended by two weeks until January 30th. Ken added that the EQC would not be making any decisions tonight, just listening to the testimony. Linda introduced Brian Finneran from DEQ, who gave a presentation summarizing the proposed rulemaking. A question and answer period followed the presentation.

Linda then announced at 6:47 p.m. she would like to begin the formal hearing on the proposed rulemaking hearing. She informed people that the hearing would be recorded and that testimony

would become part of the public record for the rulemaking. Linda explained her role was to take testimony on behalf of the EQC and prepare a report summarizing the written and verbal comments. She asked that people interested in providing oral testimony fill out a witness registration form, and would call people to testify in the order they turned in the form. She stated that written comments would be given the same weight as oral comments.

Linda reminded the audience that the deadline date for receipt of written comments on the proposed rules is Friday, January 30th, 2009, at 5 p.m. She stated that after reviewing the comments, the department may consider revisions to the proposed rules. She added that the department's final recommendation for rule adoption will be made at the EQC meeting scheduled for April 23-24, 2009, in Portland Oregon, and that the EQC can use its own discretion in deciding whether to adopt all, part or none of the proposed rules, postpone adoption, or hold additional public hearings.

- Summary of Oral Testimony:

Eleven persons turned in witness registration forms, and testified in the following order.

Arya Behbehani-Divers, Portland Gas and Electric (PGE) Company

Arya stated that pending climate change legislation poses many uncertainties for PGE. She gave some background information on the PGE Boardman power plant, and how it fits into PGE resource mix. She said the proposed "decision points" being recommended by PGE in their December 17, 2009 comment letter represents a fine tuning of DEQ proposed Best Available Retrofit Technology (BART) rules, and ensures environmental protection, as well as addressing the uncertainty of upcoming climate change regulation. She said PGE agrees with DEQ proposed BART controls for nitrogen oxides (NOx), and controls for sulfur dioxide (SO2), only if the plant operates beyond 2040. Ayra added that PGE has significant concerns about the additional NOx controls for the Reasonable Progress determination, as this is a major cost that achieves minimal visibility benefit. She said that PGE proposed decision points for plant shutdown allow flexibility to achieve the best economic and environmental outcomes for its customers, meets the BART and Reasonable Progress regulatory requirements under the regional haze rule, and achieves visibility improvements as good or better than DEQ's proposed controls. She said that cost of DEQ Phase 1 SO2 controls proposed controls and Phase 2 NOx controls under the two closure options of 2020 and 2029 exceed the cost criteria for BART and Reasonable Progress requirements, respectively, and therefore these controls should not be required, as both would be too high to be considered cost-effective.

Bob Elliott, Southwest Clean Air Agency

Bob stated that air quality studies have shown that PGE Boardman plant emissions have a significant impact on the Columbia Gorge. He said his agency urges DEQ to deny PGE's request for a compliance schedule delay proposal. He pointed out that PGE agrees with DEQ's BART proposal, and that EPA approval of the emission limits being proposed for Boardman should not be a problem. Bob described successful efforts back in 1998 to reduce emissions from the TransAlta Centralia power plant in Washington, where similar SO2 controls were

installed within 4 years. He said PGE' proposal would undermine efforts to develop a protection strategy in the Gorge, and have adverse and unacceptable impacts until at least 2020. In supporting DEQ proposed rules for PGE Boardman, he said his agency believes the compliance time period for installing controls should be shorter, and would be easy to do. The proposed Phase 1 NOx controls should be July of 2011, instead of 2012, and the proposed SO2 controls should be July of 2013, instead of 2014.

Jan Groh, citizen

Jan stated she supports closing the PGE Boardman plant as soon as possible, and that other technologies should be pursued for power generation. The costs for the proposed controls are very high, and because of upcoming global warming regulations, she would rather see Boardman shutdown by no later than 2020, and pursue instead new and environmentally friendly energy sources, such as solar and wind, and energy efficiency. Jan said we should move away from coal energy and that we have the technology to pursue these other sources. She also said she is opposed to importing liquefied natural gas, and that if the Boardman plant remains open, she supports using blue-green algae technologies to sequester carbon emissions.

David Rupar, citizen

David stated he supports ending reliance on coal as an energy source, and that the $471 million for controls for Boardman would be better spent on clean energy and energy efficiency. He said this would go a long way in solving our air quality problems. He said if the only choice was between the $471 million to keep Boardman in operation, or the PGE proposal, his choice would be the PGE proposal, as this would allow PGE to invest in the cleaner "green" technologies. He stated that as a rate payer he would rather pay cleaner air and shutdown the Boardman plant as soon as possible.

Michael Lang, Friends of the Columbia Gorge

Michael noted that his organization has about 5,000 members, and PGE Boardman is the largest stationary source of air pollution that affects the Columbia Gorge National Scenic Area. He said that even though the Gorge is not a Class I area, it is required under the Scenic Area Act to be protected. Michael noted that his organization supports the protection of Class I areas as well. He said that DEQ has been participating in a strategy to protect air quality in the Gorge, and it is clear that PGE Boardman is a major contributor. Michael said that DEQ has done a good job in proposing controls for PGE Boardman as a first step, but it does not go far enough. He supports new low NOx burners by 2011which should be able to lower emission rates by 66%, and that the timeline for installing SO2 and NOx controls should be accelerated. He said the proposed control technologies should be able to reduce SO2 and NOx combined by over 90%. He added that 2011, not 2012, should be enough time for PGE to decide whether to shut down the plant. He said DEQ should require installation of mercury controls by 2012, and not extend by two years, as proposed by DEQ.

Alan T. Edwards, citizen, PGE customer

Alan stated that he has 30 years experience as a licensed engineer. He submitted some supporting materials from a trade magazine on boiler technology on alternative viable retrofit technology, called the "cloud chamber scrubber". He said this multi-pollutant control technology has been shown to be very successful and cost-effective in removing particulate matter and soluble gases, using charged water droplets.

Gordon Fulks PhD, citizen

Gordon stated that he agrees with PGE that they should be not required to install expensive controls that could be scrapped in the near future, but disagrees that global warming is a real problem. He questioned DEQ's use of the "deciview" measurement to show visibility improvements, as it is on a logarithmic scale, which compared to a linear scale, exaggerates the amount of improvement. He said that is it good to look at reducing man-made burning, such as field and slash burning, given that this burning takes place closer to Class I areas. He also supports better forest management plans to reduce the impact of forest fires. Gordon said DEQ should not pick on PGE Boardman just because they are an easy target, and that the contribution of forest fires and other factors need to be looked at, such as population growth, car emissions, and future power needs. He said he would like to see how the estimated emission reduction from DEQ's proposed Boardman controls would translate into visibility improvement in deciview, and how must this would improve the total visibility in all Class I areas. He said coal plants are important to our future, and that alternative power sources are not enough. He supports all reasonable pollution controls, but strongly opposes forcing PGE to install any controls that will not have a reasonable life span to recoup the investment.

Aubrey Baldwin, Pacific Environmental Advocacy Center (PEAC)

Aubrey stated that she plans to submit additional detailed written comments during the public comment period in addition to tonight's testimony. She said that it was 1977 when Congress identified visibility protection as important, 1999 since the federal regional haze rule was adopted, and a year since DEQ was to submit a regional haze plan for Oregon. She said now DEQ is proposing a rule that would give PGE another ten years to make visibility improvements. Aubrey said this adds up to 40 years since Congress first addressed visibility in 1977 to make any real improvements in visibility. She said that her coalition has a lawsuit against PGE for violations of the Clean Air Act, and that PGE Boardman plant has operated uncontrolled since 1980. She stated that her coalition does not disagree with DEQ's technical determination of controls for Boardman, but does have serious concerns about the timeline and actual emission limitations being proposed. The timeline is much too long. The proposed control technology should be able to reduce total emissions by 90% at least. DEQ's emission limits for NOx and SO2 are too lenient. She said other coal plants can achieve 90% SO2 emission reduction, and that SCR controls for NOx is should be able to achieve 93% reduction. Aubrey said her coalition supports July 2011 decision point for PGE to decide on plant shutdown, and for deciding on whether to install both SO2 controls and SCR controls. She said 2020 should be latest shutdown date, and does not support the proposed 2 year extension for mercury controls. She said PGE is

now at a crossroads to pour money in old, inefficient technologies, or provide leadership and embrace new technologies and take an environmental leadership role.

Andrew Hawley, Northwest Environmental Defense Center

Andrew stated that there should be no more delay, and DEQ should move quickly to finalize the Regional Haze Rule which is already a year overdue. He said adoption of clear and enforceable timelines and specific emission limits are needed which will result in actual emission reductions and improvement to air quality. He stated that coal-burning plants are the nations' largest sources of air pollution and global warming, and PGE Boardman is no exception. He said impacts on visibility and public health go hand in hand. Andrew pointed out the PGE Boardman plant is the largest stationary emission source for SO2 and NOx in Oregon. He said the plant contributes to acid rain and smog, and that carbon monoxide and mercury also poses threat to public health. Andrew said it is time for DEQ to move forward and take action to impose the required control technologies to protect the public and the environment by adopting BART and the regional haze regulations.

Tom Wood, Associated Oregon Industries

Tom said that he is the chair of the Energy and Environment Committee of AOI and it is in that capacity that he is offering testimony. He said that while DEQ did a good job on the BART determination, he questions the stringency of the Phase 2 controls being proposed for Reasonable Progress purposes. He said the PGE's decision points proposal is a creative approach that recognizes the current regulatory uncertainty we are in related to burning fossil fuels, and is a good way to bring in flexibility to the process, in order to make informed decisions and what makes sense for Oregon. He said he was confused by Bob Elliott's suggestion that PGE is requesting is an extension, when it is really two different BART options, each standing on their own merit. Tom said that PGE's presentation showed that the aggregate emissions associated with the different closure options, and DEQ proposed controls, are essentially the same. He added that he thinks it will take a longer time than 2 or 3 years to know what carbon regulations will require and cost. He concluded by saying EQC should adopt DEQ proposed rules with PGE's proposed decision points included.

Brian Pasko, Sierra Club

Brian stated that the PGE Boardman plant has operated for decades without any modern controls, causing adverse impacts on the Gorge and wilderness areas, affecting tourism, the economy, and public health. He said the Boardman plant is also the largest stationary source of greenhouse gas emissions in Oregon, and that the outcome of this regional haze rulemaking will have a substantial impact on Oregon's efforts to continue to lead in reducing the impacts of global warming, by investing in energy efficiency and renewable energy, and phasing out use of coal. He said the Sierra Club supports giving PGE regulatory flexibility options to make informed decisions on whether it would be more prudent close the plant ahead of schedule or to invest millions of dollars in controls that will not reduce global warming. Brian said PGE proposed shutdown dates would result in high emissions to continue for too long before closing. He said that global warming must be addressed now, and that it makes economic and environmental

sense to shut down the PGE Boardman plant in a shorter timeframe, and that PGE should make this decision by July 1, 2011.

There was no other testimony provided. The hearing was adjourned at 8:07 p.m.

2. January 7, 2009, Lane Regional Air Pollution Authority, LRAPA Meeting Room, 1010 Main Street, Springfield. The hearing officer was Brian Finneran from DEQ. The hearing began at 6:10 p.m.

5 people attended the hearing. 1 person testified.

Brian Finneran announced he would like to start by providing a presentation summarizing the proposed rulemaking. A brief question and answer period followed the presentation.

Brian began the formal hearing on the proposed rulemaking hearing at 6:36 p.m. He stated that the hearing was being recorded and testimony would become part of the public record for the rulemaking. He explained his role was to take testimony on behalf of the EQC and prepare a report summarizing the written and verbal comments. He asked that people interested in providing oral testimony fill out a witness registration form, and would call people to testify in the order they turned in the form. Brian stated that written comments would be given the same weight as oral comments.

Brian mentioned that the deadline date for receipt of written comments on the proposed rules is Friday, January 30th, 2009, at 5 p.m. He stated that after reviewing the comments, the department may consider revisions to the proposed rules. He added that the department's final recommendation for rule adoption will be made at the EQC meeting scheduled for April 23-24, 2009, in Portland Oregon, and that the EQC can use its own discretion in deciding whether to adopt all, part or none of the proposed rules, postpone adoption, or hold additional public hearings.

- Summary of Oral Testimony:

One person turned in a witness registration form.

Ray Hendricks from Portland Gas and Electric (PGE) Company

Ray provided highlights of the December 17, 2009 comment letter submitted to DEQ. He gave some background information on the PGE Boardman power plant, and how it fits into PGE resource mix. He mentioned that this coal plant is about a half to two-third cheaper to operate than a natural gas plant. He described Integrated Resource Planning process that goes to the Oregon Public Utilities Commission (PUC), and how this is different than DEQ's rulemaking process. He stated that pending climate change legislation poses many uncertainties for PGE. He said PGE agrees with DEQ proposed BART controls for nitrogen oxides (NOx), and controls for sulfur dioxide (SO2), only if the life operates beyond 2040. Ray added that PGE has significant concerns about the additional NOx controls for the Reasonable Progress determination, as this is a major cost that achieves minimal visibility benefit. He said PGE is

only recommending minor changes to the proposed controls requirements. He pointed out that each of PGE alternatives to DEQ's proposed rules meets the BART and Reasonable Progress regulatory requirements under the regional haze rule, and that with the proposed closure options, the controls proposed by DEQ exceed the cost-effectiveness range. He explained PGE's decisions points proposal in detail, including how the future resource mix needs to have coal and natural gas as a mix. Ray added that PGE's proposal allows flexibility to achieve the best economic and environmental outcomes, and if looking at aggregate emissions or visibility improvement, PGE's decision points proposal is as good or better than DEQ's proposed controls.

There was no other testimony provided. The hearing was adjourned at 6:58 p.m.

3. January 8, 2009, DEQ Medford Office, Conference Room, Suite 201, 221 Stewart Avenue, Medford. The hearing officer was Tom Peterson from DEQ. Also present was EQC Commissioner Judy Uherbelau. The hearing began at 6:15 p.m.

4 people attended the hearing. 1 person testified.

Tom Peterson announced that Brian Finneran would be providing a presentation summarizing the proposed rulemaking. A brief question and answer period followed the presentation.

Tom began the formal hearing on the proposed rulemaking hearing at 7:10 p.m. He stated that the hearing was being recorded and testimony would become part of the public record for the rulemaking. He explained his role was to take testimony on behalf of the EQC and prepare a report summarizing the written and verbal comments. He asked that people interested in providing oral testimony fill out a witness registration form, and would call people to testify in the order they turned in the form. Tom stated that written comments would be given the same weight as oral comments.

Tom mentioned that the deadline date for receipt of written comments on the proposed rules is Friday, January 30th, 2009, at 5 p.m. He stated that after reviewing the comments, the department may consider revisions to the proposed rules. He added that the department's final recommendation for rule adoption will be made at the EQC meeting scheduled for April 23-24, 2009, in Portland Oregon, and that the EQC can use its own discretion in deciding whether to adopt all, part or none of the proposed rules, postpone adoption, or hold additional public hearings.

- Summary of Oral Testimony:

One person turned in a witness registration form.

Ray Hendricks from Portland Gas and Electric (PGE) Company

Ray provided highlights of the December 17, 2009 comment letter submitted to DEQ. He gave some background information on the PGE Boardman power plant, and how it fits into PGE resource mix. He mentioned that this coal plant is about a half to two-third cheaper to operate than a natural gas plant. He described Integrated Resource Planning process that goes to the Oregon Public Utilities Commission (PUC), and how this is different than DEQ's rulemaking process. He stated that pending climate change legislation poses many uncertainties for PGE. He said PGE agrees with DEQ proposed BART controls for nitrogen oxides (NOx), and controls for sulfur dioxide (SO2), only if the life operates beyond 2040. Ray added that PGE has significant concerns about the additional NOx controls for the Reasonable Progress determination, as this is a major cost that achieves minimal visibility benefit. He said PGE is only recommending minor changes to the proposed controls requirements. He pointed out that each of PGE alternatives to DEQ's proposed rules meets the BART and Reasonable Progress regulatory requirements under the regional haze rule, and that with the proposed closure options, the controls proposed by DEQ exceed the cost-effectiveness range. He explained PGE's decisions points proposal in detail, including how the future resource mix needs to have coal and natural gas as a mix. Ray added that PGE's proposal allows flexibility to achieve the best economic and environmental outcomes, and if looking at aggregate emissions or visibility improvement, PGE's decision points proposal is as good or better than DEQ's proposed controls.

4. January 12, 2009, Hermiston Conference Center, Rotary Altrusa Room, 415 S. Hwy 395, Hermiston. The hearing officer was Linda Hayes-Gorman from DEQ. The hearing began at 6:08 p.m.

28 people attended the hearing. 5 people testified.

Linda Hayes-Gorman announced that Brian Finneran would be providing a presentation summarizing the proposed rulemaking. A question and answer period followed the presentation.

Linda began the formal hearing on the proposed rulemaking hearing at 7:25 p.m. She stated that the hearing was being recorded and testimony would become part of the public record for the rulemaking. She explained his role was to take testimony on behalf of the EQC and prepare a report summarizing the written and verbal comments. She asked that people interested in providing oral testimony fill out a witness registration form, and would call people to testify in the order they turned in the form. Linda stated that written comments would be given the same weight as oral comments.

Linda mentioned that the deadline date for receipt of written comments on the proposed rules is Friday, January 30th, 2009, at 5 p.m. She stated that after reviewing the comments, the department may consider revisions to the proposed rules. She added that the department's final recommendation for rule adoption will be made at the EQC meeting scheduled for April 23-24, 2009, in Portland Oregon, and that the EQC can use its own discretion in deciding whether to adopt all, part or none of the proposed rules, postpone adoption, or hold additional public hearings.

- Summary of Oral Testimony:

Five persons turned in witness registration forms, and testified in the following order. **Ray Hendricks from Portland Gas and Electric (PGE) Company**

Ray provided highlights of the December 17, 2009 comment letter submitted to DEQ. He gave some background information on the PGE Boardman power plant, and how it fits into PGE resource mix. He mentioned that this coal plant is about a half to two-third cheaper to operate than a natural gas plant. He described Integrated Resource Planning process that goes to the Oregon Public Utilities Commission (PUC), and how this is different than DEQ's rulemaking process. He stated that pending climate change legislation poses many uncertainties for PGE. He said PGE agrees with DEQ proposed BART controls for nitrogen oxides (NOx), and controls for sulfur dioxide (SO2), only if the life operates beyond 2040. Ray added that PGE has significant concerns about the additional NOx controls for the Reasonable Progress determination, as this is a major cost that achieves minimal visibility benefit. He said PGE is only recommending minor changes to the proposed controls requirements. He pointed out that each of PGE alternatives to DEQ's proposed rules meets the BART and Reasonable Progress regulatory requirements under the regional haze rule, and that with the proposed closure options, the controls proposed by DEQ exceed the cost-effectiveness range. He explained PGE's decisions points proposal in detail, including how the future resource mix needs to have coal and natural gas as a mix. Ray added that PGE's proposal allows flexibility to achieve the best economic and environmental outcomes, and if looking at aggregate emissions or visibility improvement, PGE's decision points proposal is as good or better than DEQ's proposed controls.

Tamra Mabbott, citizen

Tamra stated that DEQ needs to conduct a more thorough analysis of the fiscal impact, particularly in Morrow County. She said she strongly disagreed with DEQ's Fiscal Impact Report in Appendix B, page 12, that there would be no direct fiscal or economic impact on any local government from this rulemaking, if the PGE plant had to shutdown prematurely. She said she was surprised to learn that the State of Oregon does not have an energy supply plan and that this year the Oregon Department of Energy is requesting funding for such a plan. She said that if DEQ is proposing rules that could lead to a premature shutdown of the PGE Boardman plant, she questions where would the replacement power come from. Tamra said this raises the question whether the proposed controls for PGE Boardman would provide a measureable improvement in visibility. She stated that if EPA is requiring haze improvements by 2064, she is surprised at the haste in DEQ adopting these requirements now, and why the rules apply retroactively to sources, rather than looking at just new ones. She commented on the lack of full analysis of land use impacts, especially for replacement power should the plant shutdown. She encouraged DEQ to look at other precedents on how state and local governments can work together to achieve compliance with federal environmental regulations in a more comprehensive and balanced manner. Tamra added this is important rulemaking decision that requires a very thoughtful and comprehensive analysis, which includes looking at the unavoided and unintended consequences, such as increasing the rate base, the land use impacts, other environmental impacts, and the economic and social impacts.

Gary Neal, Port of Morrow

Gary stated that the Power of Morrow recognizes the PGE Boardman plant is an important part of the local economy. He said the Port supports DEQ's proposed BART controls for SO2, NOx, and particulate matter for the Boardman plant, however, they share PGE's concerns about NOx SCR controls that go beyond the BART requirements. He said these additional controls for Reasonable Progress do not make economic or environmental sense when the visibility improvement would be so minor. Gary added that the Port supports amending DEQ's proposed rules to reflect PGE's decision points proposal, for the reasons PGE has provided.

Terry Tallman, Morrow County Judge

Terry stated that he supports much of the earlier testimony provided by Tamra and Gary. He said that he read that PGE has 814,000 rate payers and that the plant provides 250,000 homes in the Portland area with power, and if the plant had to shutdown, where would the replacement power come from. He added that this could affect economic development and have other consequences, and that the plant provides 2100 jobs. He agreed with Tamra's comments about the importance for state and local government consultation. Terry added that a major concern is the potential impact on PGE's rate payers, similar to what has happened to the public with gas and fuel prices, and there is concerned about unexpected consequences.

John Cox, Confederated Tribes of the Umatilla Indian Reservation

John stated that tribal people are very close the land, and respect the natural resources, including visibility, air and water quality. He said that tribal people have been on the land for a long time, may be more impacted by these decisions related to these rules for PGE Boardman, due to their traditional uses. John added that he will be providing some written comments by the end of the comment deadline.

There was no other testimony provided. The hearing was adjourned at 8:15 p.m.

5. January 13, 2009, Columbia Gorge Community College, Lecture Hall, Building Two, Room 2.384, 400 E. Scenic Drive, The Dalles. The hearing officer was Linda Hayes-Gorman from DEQ. The hearing began at 6:07 p.m.

46 people attended the hearing. 17 people testified.

Linda Hayes-Gorman announced that Brian Finneran would be providing a presentation summarizing the proposed rulemaking. A question and answer period followed the presentation.

Linda began the formal hearing on the proposed rulemaking hearing at 7:20 p.m. She stated that the hearing was being recorded and testimony would become part of the public record for the rulemaking. She explained his role was to take testimony on behalf of the EQC and prepare a report summarizing the written and verbal comments. She asked that people interested in providing oral testimony fill out a witness registration form, and would call people to testify in

the order they turned in the form. Linda stated that written comments would be given the same weight as oral comments.

Linda mentioned that the deadline date for receipt of written comments on the proposed rules is Friday, January 30th, 2009, at 5 p.m. She stated that after reviewing the comments, the department may consider revisions to the proposed rules. She added that the department's final recommendation for rule adoption will be made at the EQC meeting scheduled for April 23-24, 2009, in Portland Oregon, and that the EQC can use its own discretion in deciding whether to adopt all, part or none of the proposed rules, postpone adoption, or hold additional public hearings.

- Summary of Oral Testimony:

Seventeen persons turned in witness registration forms, and testified in the following order.

Ray Hendricks from Portland Gas and Electric (PGE) Company

Ray provided highlights of the December 17, 2009 comment letter submitted to DEQ. He gave some background information on the PGE Boardman power plant, and how it fits into PGE resource mix. He mentioned that this coal plant is about a half to two-third cheaper to operate than a natural gas plant. He described Integrated Resource Planning process that goes to the Oregon Public Utilities Commission (PUC), and how this is different than DEQ's rulemaking process. He stated that pending climate change legislation poses many uncertainties for PGE. He said PGE agrees with DEQ proposed BART controls for nitrogen oxides (NOx), and controls for sulfur dioxide (SO2), only if the life operates beyond 2040. Ray added that PGE has significant concerns about the additional NOx controls for the Reasonable Progress determination, as this is a major cost that achieves minimal visibility benefit. He said PGE is only recommending minor changes to the proposed controls requirements. He pointed out that each of PGE alternatives to DEQ's proposed rules meets the BART and Reasonable Progress regulatory requirements under the regional haze rule, and that with the proposed closure options, the controls proposed by DEQ exceed the cost-effectiveness range. He explained PGE's decisions points proposal in detail, including how the future resource mix needs to have coal and natural gas as a mix. Ray added that PGE's proposal allows flexibility to achieve the best economic and environmental outcomes, and if looking at aggregate emissions or visibility improvement, PGE's decision points proposal is as good or better than DEQ's proposed controls. Ray Hendricks from Portland Gas and Electric (PGE) Company

Joseph Kelsey, citizen

Joseph stated that the public health impacts from pollution from PGE Boardman should be specified, so that DEQ could show what benefits to health could be expected from the different levels of controls being proposed for the PGE Boardman plant.

Lauren Goldberg, Columbia Riverkeeper

Lauren stated the Columbia Riverkeeper is part of a coalition of environmental groups that has filed a federal lawsuit claiming PGE Boardman has been violating the law by not meeting the Clean Air Act. She said she's concerned about the impact of Boardman's SO2 and NOx emissions on aquatic systems. She commented that PGE's demand for regulatory flexibility must not interfere with achieving DEQ's regional haze and policy goals. She said DEQ should provide PGE with flexibility to cease emissions entirely instead of spending hundreds of millions on some pollutants, but PGE's proposed timeline allows them to continue to pollute for too long. She indicated under no circumstances should PGE be allowed to emit more under their proposal than under DEQ's, or weaken DEQ's proposed rules, which are already too lenient. Lauren said DEQ should give PGE until 2011to decide whether install controls or cease operation by 2020.

Jurgen Hess, citizen

Jurgen stated that DEQ is proposing rules that only partially clean up PGE Boardman's air pollution. He said that PGE is seeking more time, which should not be granted. He said he mostly supported DEQ rules, but that they need to have shorter timelines and require the most stringent controls now. He said to set 2011 as the decision point to either close the plant or comply with new rules on an accelerated schedule, and require that carbon rules now be considered. Jurgen encouraged PGE to be visionary in looking at new resources and shut the plant now, as 2020 is too long. He added that DEQ should ensure a healthy and nurturing environment.

Rachael Pecore, Columbia Riverkeeper

Rachael stated that acid rain has been impacting rock images in the Gorge, and that a study has shown in November, the worst month for haze, 50% of the haze can be directly attributable to PGE Boardman. She encouraged DEQ to require that PGE Boardman comply with reasonable and technologically achievable limits. She added that the NOx controls required by DEQ in 2011should be able to achieve a 66% reduction, and that SO2 controls should achieve a 90% reduction in 2014. Rachael stated that that PGE's demand for regulatory flexibility should not interfere with achieving DEQ's regional haze and policy goals.

Peter Cornelison, Hood River Valley Residents Committee

Peter stated that his organization supports more stringent regulation of PGE Boardman that what is being proposed. He read an Oregonian article which advocated plant shutdown, citing the fact that the plant emits 28,000 tons of air pollution, which causes acid rain, and which also emits mercury, and thus poses significant health risks. He encouraged adopting DEQ rules with an accelerated timeline in order to protect and enhance air quality in the Gorge and Class I areas, and with more stringent controls, or require early shutdown of the plant.

David Berger, Oregon Conservancy Foundation

David stated that PGE Boardman has been avoiding putting on controls for 30 years. He mentioned concerns about mercury emissions and acid rain. He that even with better controls on PGE Boardman, significant pollution will still be emitted, so the best solution is too shut the plant now and looking at renewable energy sources and increased conservation. He believes that "rate-based" conservation should be encouraged and supported. David believes wind generators and sources of renewable energy need to replace coal power.

Dan Richardson, citizen

Dan stated that he supports DEQ proposed controls for the Boardman plant, but that the timelines are too long, and the controls levels too lenient. He said the PGE Boardman has had 30 years of no controls, and their decision points proposal should not be accepted by DEQ. He added that DEQ should include more controls of non-point sources such as open burning in its regional haze plan.

Jodi Tepoel, Columbia Gorge Community College

Jodi stated that the money targeted for PGE Boardman controls would be better spent on solar panels and other alternatives. She pointed out that in the Columbia Gorge autism rates are high and she believes affected by PGE Boardman emissions, and that the health risks are important and should be considered along with this rulemaking.

John Carstensen, Idaho Power Company

John stated that Idaho Power agrees with PGE's testimony in supporting the BART controls being proposed, but not the Reasonable Progress controls. He also supports PGE's decision points proposal, given the uncertainty of future carbon regulations. He said he encourages DEQ to continue to use common sense and sound economic judgment in this rulemaking.

Jules Burton, Columbia Gorge Community College

Jules stated that DEQ needs to describe both the benefits to visibility and public health in its rulemaking. She commented that DEQ regional haze rules focus on high mountain areas which are sensitive areas with high biodiversity, which should be addressed along with the focus on visibility. She said that DEQ should be addressing the fact that PGE proposal for plant shutdown in 30 years is too long, and cited public health concerns.

Mark Nelson, citizen

Mark stated that it is well documented that the PGE Boardman plant is a detriment to public health and livability. He said the PGE wants to delay action until 2020 or 2040. He commented that foresight is needed in planning for the future, in terms of protecting air and human health. Mark said in the mix of power generated, PGE Boardman is only 15%, which is not that much.

He added that good decisions are needed, and to avoid being short-sighted in making these decisions.

Jessica Kinder, citizen

Jessica stated that she didn't understand why it's taken since 1977 when Congress set aside Class I areas to do something about visibility, and now she hears this might not occur until 2020. She said she thinks it's is health issue, and better solutions are needed.

Gary Neal, Port of Morrow

Gary stated that he agrees with PGE's request for decision points, and he is concerned about the economic impacts if the plant shuts down early, especially at the local level in Morrow County in terms of jobs and tax base. He said PGE has been a good corporate citizen for the state of Oregon, and urges DEQ to support PGE's request.

Rosemary Ross, citizen

Rosemary stated that she appreciates the visibility in the Gorge, and this is one of the reasons people live here. She said it's important to protect it, and that tourism and economic development are important. She added she supports clean energy and energy conservation. Rosemary said we should encourage PGE to make sound energy decisions but also be good stewards of the environment.

John Nelson, citizen

John stated that he moved to The Dalles 15 years ago, and in November every year there is an air inversion that worsens air quality and affects visibility. He said in the summer there are also visibility problems due to air pollution from the Portland area. John said he was concerned the Gorge is not a Class I area and not part of the regional haze plan. He encouraged DEQ to include the Gorge in the plan to protect visibility.

Joel Kabakov PhD, Columbia Gorge Community College

Joel stated that DEQ's focus is fragmentary, and should more comprehensive in terms of looking beyond visibility to air quality and public health. He said that there is history of environment efforts that fail to look at the larger issue, and that there is a campaign by industry, both nuclear and coal power, to prevent this comprehensive look at energy and environmental protection. He added the haze that hangs over Crater Lake is minor compared to the concerns most citizens have about protecting the environment as a whole.

There was no other testimony provided. The hearing was adjourned at 8:30 p.m.

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Relationship to Federal Requirements

Adoption of Oregon 2008 Regional Haze Plan and New Controls for the PGE Boardman Power Plant

Answers to the following questions identify how the proposed rulemaking relates to federal requirements and potential justification for differing from, or adding to, federal requirements. This statement is required by OAR 340-011-0029(1).

1. Is the proposed rulemaking different from, or in addition to, applicable federal requirements? If so, what are the differences or additions?

The proposed rulemaking is different from, or in addition to, applicable federal requirements because it is more specific than the federal requirements. The proposed Oregon Regional Haze Plan was developed by the department to meet the federal Regional Haze Rule. Included in the proposed plan are requirements for certain industrial sources to meet the Best Available Retrofit Technology (BART). The proposed plan also includes other requirements to demonstrate "Reasonable Progress" in improving visibility by a 2018 milestone date.

The Regional Haze Rule requires BART be addressed in the first regional plan submitted by a state. The BART process consists of an evaluation of various control options for certain large industrial sources that have a significant visibility impact in a federal Class I areas. BART requires these controls be installed no later than five years after EPA approval of the state's regional haze plan. While states follow federal law and guidance in conducting this analysis, the determination of what controls satisfy BART is made by the state.

The Regional Haze Rule also requires the first regional haze plan demonstrate reasonable progress in making incremental improvements in Class I visibility by 2018, called the 2018 milestone year. In the proposed Oregon Regional Haze Plan, the DEQ projects that the 2018 milestone will not be met for the haziest or worst visibility days. If a state projects that the 2018 milestone will not be met, the federal rule requires the state to evaluate and determine what additional measures are needed to meet the milestone.

The primary action associated with the proposed rulemaking is the proposed emission controls for nitrogen oxides (NOx) and sulfur dioxide (SO2) for the PGE Boardman coal-fired power plant. These controls are being proposed in two steps. The first step (Phase 1) involves NOx and SO2 controls to meet the federal requirements for BART. The second step (Phase 2) represents additional NOx controls to meet the Reasonable Progress requirements, and provide other air quality benefits (described below).

Also related to the Reasonable Progress requirement is the proposed Long-Term Strategy in the Oregon Regional Haze Plan, which includes a commitment by the department to evaluate in the next five years other industrial sources that do not fall under the BART requirements.

This evaluation of "non-BART" sources could result in additional control requirements for these sources in the next ten years. Again, while states are required to have a Long-Term Strategy in their plans, this commitment to evaluate non-BART sources is more specific than the federal requirement to demonstrate reasonable progress.

Included in the proposed rulemaking is the adoption of the revised Oregon Smoke Management Plan (OSMP) into Oregon's State Implementation Plan (SIP). This plan was amended by the Oregon Department of Forestry in 2007, and is being included in this rulemaking with no additional changes. Provisions in the OSMP pertaining to Enhanced Smoke Management Programs (ESMP) for forestry burning will be incorporated into the proposed Oregon Regional Haze Plan. These ESMP provisions are requirements under the federal Regional Haze Rule, and as such are not different from, or in addition to, applicable federal requirements. However, the Long-Term Strategy in the proposed Oregon Regional Haze Plan contains a commitment to determine if more stringent controls for forestry burning will be needed in the next 10 years to meet the Reasonable Progress requirements, which would be in addition to ESMP requirements in the federal Regional Haze Rule.

2. If the proposal differs from, or is in addition to, applicable federal requirements, explain the reasons for the difference or addition (including as appropriate, the public health, environmental, scientific, economic, technological, administrative or other reasons).

The Phase 1 controls proposed for the PGE Boardman power plant represent DEQ's determination of the appropriate controls to meet the federal requirements for BART. Using federal guidance, DEQ evaluated the costs, benefits, and technical feasibility of different control options for NOx and SO2 in making this determination. DEQ believes the Phase 1 NOx and SO2 controls being proposed represent typical controls required for other facilities similar to PGE Boardman.

Although sources have up to five years to install BART, the proposed Phase 1 NOx controls will be required by July 2011, based on DEQ's determination these controls are readily available, and should be installed as expeditiously as possible. The Phase 1 SO2 controls are being required by July 2014, based on DEQ's determination five years is needed, due to demands on material and labor due to similar other BART determinations and requirements for these controls in other states.

The Phase 2 controls being proposed for PGE Boardman were the result of DEQ's decision that additional reductions in NOx emissions were necessary to demonstrate reasonable progress in meeting the 2018 milestone. Unlike BART, which is a process for evaluating appropriate haze controls, the Reasonable Progress requirements represent a performance standard that a state must meet. The other regional haze strategies in the Oregon Regional Haze Plan did not provide enough visibility improvement to meet the 2018 milestone. The Departments' analysis shows that the proposed Phase 2 controls will result in significant visibility improvements in 14 Class I area that are impacted by the PGE Boardman plant. In addition, DEQ has identified other benefits provided by Phase 2, such as visibility improvements and reducing acid rain deposition in the Columbia River Gorge National Scenic Area. This scenic area is not a federal Class I area, and therefore not subject to the federal Regional Haze rule.

DEQ determined that the installation date for installing Phase 2 controls should be July 2017, based on the following factors: (1) substantial time is needed to make major boiler modifications so that the retrofit controls operate at their designed maximum efficiency; (2) extra time needed to acquire, construct, and install these controls due to similar retrofit controls being required in the eastern U.S., and (3) the extended schedule will allow PGE to evaluate new and environmentally more compatible technologies.

The two commitments in the Long-Term Strategy to evaluate non-BART sources and forestry burning in the next five years were the result of the DEQ's decision that additional measures will be needed to achieve the 2018 milestone. The evaluation of non-BART sources will be a stakeholder-based effort to develop comprehensive guidance for evaluating their contribution to haze and the need for additional controls. The evaluation of forestry burning will determine the extent this activity contributes to the worst visibility days and whether additional smoke management controls would be appropriate. Both evaluations will be deliberative processes that may not necessarily result in controls being required.

3. If the proposal differs from, or is in addition to, applicable federal requirements, did the Department consider alternatives to the difference or addition? If so, describe the alternatives and the reason(s) they were not pursued.

In developing the proposed controls for PGE Boardman, DEQ considered several alternatives. The alternative that represented the greatest stringency was a single phase approach, where Phase 2 controls would be installed at the same time as Phase 1 controls (by 2014). However, as described above, the Phase 2 controls would require more than the five years under BART, based on the substantial time needed for boiler modification, and time to acquire, construct, and install these controls. The alternative that represented the least stringency was not requiring Phase 2 controls at all. This was rejected due to the significant visibility impacts caused by PGE Boardman as indicated by DEQ's modeling of this plant, and need to make additional visibility improvements by the 2018 milestone and demonstrate Reasonable Progress.

DEQ's selection of Phase 1 SO2 controls was based on evaluating two alternative controls. The one chosen for PGE Boardman: (1) provided slightly greater visibility improvement; (2) cost significantly less than the alternative; (3) had no issues associated with water use and water treatment, as did the alternative; and (4) was compatible with mercury emission controls required for PGE Boardman during the time period as the Phase 1 controls.

The evaluation of alternatives is an inherent part of the BART process. DEQ followed federal BART guidance in evaluating the following factors in PGE Boardman's BART determination: (1) identifying all available retrofit control technologies, (2) the cost effectiveness, (3) energy and non-air quality impacts, (4) and the amount of visibility improvement under each control option.

See DEQ's BART Report for the PGE Boardman for additional analysis of alternatives evaluated by the department at http://www.deq.state.or.us/aq/haze/docs/deqBartReport.pdf.

DEPARTMENT OF ENVIRONMENTAL QUALITY
Chapter 340
Proposed Rulemaking
STATEMENT OF NEED AND FISCAL AND ECONOMIC IMPACT
This form accompanies a Notice of Proposed Rulemaking

Caption/Title of Proposed Rulemaking:	**Adoption of Oregon 2008 Regional Haze Plan and New Controls for the PGE Boardman Power Plant** Adopt OAR 340-223-0010 through 340-223-0050 Amend OAR 340-200-0040, 340-228-0671, 340-228-0673
Stat. Authority or other Legal Authority:	ORS 468.020 & 468A.310
Stat. Implemented:	ORS 468A.025
Need for the Rule(s)	***2008 Oregon Regional Haze Plan*** Summary Over the next several decades, DEQ must develop a series of regional haze plans to meet the federal Regional Haze Rule. This rule requires States to make incremental progress in reducing air pollution in federal "Class I" wilderness areas and national parks by the year 2064. DEQ has developed the proposed 2008 Regional Haze Plan as the first step in haze reduction, and will update this plan every five years. The most significant action associated with the 2008 Oregon Regional Haze Plan is DEQ's proposal for requiring emission controls at the PGE Boardman coal-fired power plant. This proposal is in response to the federal requirements for Best Available Retrofit Technology (BART), which is a mandatory requirement under the regional haze rule. This proposed action would provide the largest environmental benefit of any strategy proposed in the 2008 plan. The proposed 2008 Oregon Regional Haze plan also contains the following: 1. It provides an analysis of current visibility conditions in Class I areas, a forecast of expected haze levels in 2018, and an analysis of how well Oregon is meeting the Reasonable Progress "glide path" for haze reduction; 2. In addition to the proposal for PGE Boardman, it describes actions for reducing emissions of visibility impairing pollutants from four other industrial facilities in Oregon that were shown to have a significant impact on visibility in one or more Class I areas. These sources will reduce emission through federally enforceable permit limits related to the BART requirements mentioned above;

3. It identifies a list of emission source categories (such as other large industrial facilities, and forestry burning) that will be evaluated for visibility impacts by the next regional haze plan update in 2013;

4. It adopts revisions made to the Oregon Smoke Management Plan by the Oregon Department of Forestry in 2007. These revisions include measures to protect visibility in Class I areas. DEQ is proposing to incorporate the OSMP (OAR 629-048-0001 through 629-048-0500) into the Oregon State Implementation Plan without any additional changes, and

5. It aligns the installation of mercury controls (adopted in 2006) for PGE Boardman with the proposed Phase 1 SO2 controls. This rulemaking retains the July 1, 2012 compliance date for mercury controls, but changes the compliance extension contingency from 1-year to 2-years, adds fly ash contamination as a contingency for granting an extension, and aligns compliance reporting to the compliance date.

Background

The Clean Air Act has established national requirements for reducing haze pollution and improving visibility in federal Class I wilderness areas and national parks. These requirements are implemented through the federal Regional Haze Rule, which establishes a long term glide path for visibility improvement in each Class I area. This glide path begins in 2004 and extends to 2064. Congress envisioned a multi-decade program for improvement (60 years), with reasonable progress milestones to be met along the way. This long time frame recognizes the many challenges faced in reducing haze across the county. This includes the need for very complex technical analysis covering thousands of different emission sources from across entire regions of the U.S., to multi-jurisdictional coordination involving states, federal land managers such as the US Forest Service and National Park Service, the Environmental Protection Agency, and many other stakeholders, as well as Native American tribes. The ultimate goal of the federal regional haze rule is to return visibility in these areas to "natural background conditions" within 60 years.

Haze pollution can come from hundreds of different types of emission sources, including major industry, forestry burning, motor vehicles, small engines, and many others. Haze can originate from local sources as well as sources from other states or other countries. Haze pollution is made up of several different types of air pollutants, such as organic carbon (smoke), elemental carbon (soot), sulfur compounds (sulfate particles), nitrogen compounds (nitrate particulates), and fine dust.

In Oregon there are 12 Class I areas, including Crater Lake National Park. Oregon and other western states have developed and coordinated regional haze plans through an organization called the Western Regional Air Partnership (WRAP), as well as through individual consultation with neighboring states (in Oregon's case, this was Washington, California, and Idaho air agencies, as well as the US Forest Service and National Park Service). At five-year intervals, states will develop updates to their regional haze plans, showing the latest visibility analysis, the current status for meeting reasonable progress milestones, and proposed emission reduction strategies for making incremental

progress in haze reduction. Oregon's proposed 2008 Regional Haze Plan can be found at DEQ's website at http://www.deq.state.or.us/aq/haze/index.htm.

Key Elements of the proposed 2008 Regional Haze Plan: Best Available Retrofit Technology (BART)

The cornerstone of the 2008 Regional Haze plan is a federal requirement known as "BART," or Best Available Retrofit Technology. The BART process applies to a select group of older industrial facilities that began operations between 1962 and 1977 before Clean Air Act requirements for visibility protection were in place. The BART evaluation is a multi-step process. States begin by evaluating the visibility impact of "BART-eligible" facilities to see whether or not they have a significant impact on visibility in one or more Class I wilderness areas or national parks. If they do, facilities have two choices: they can evaluate options for installing BART (i.e. install retrofit emission controls), or they can accept a Federally Enforceable Permit Limit (FEPL) to reduce current emissions to a level that eliminates significant impact on visibility. Actions taken to reduce emissions are established as emission limits within a facility's air quality operating permit from DEQ. The reductions then become state and federally enforceable.

In DEQ's analysis of BART eligible sources, five facilities were found to have significant visibility impacts on Class I wilderness areas:

- PGE Boardman Power Plant
- PGE Beaver Power Plant
- Amalgamated Sugar
- International Paper (formerly Weyerhaeuser), Springfield
- Georgia Pacific, Wauna Mill

These five BART eligible sources must reduce emissions now to lessen their visibility impacts. DEQ conducted a BART control evaluation for the PGE Boardman power plant. The four other sources listed above had smaller visibility impacts on Class I areas. DEQ is proposing these sources take the FEPL option, as described above. This option is allowed under EPA's BART guidance, and requires a reduction in emissions to a level that no longer results in a significant visibility impact. This is achieved by making a permanent change to the sources' air permit.

New Controls for the PGE Boardman Power Plant

The most significant proposal under the 2008 Oregon Regional Haze plan would require new emission controls for the Boardman coal-fired power plant. This proposed action would provide the greatest visibility and air quality improvement of any strategy in the proposed plan, and would have the largest fiscal impact.

DEQ will establish new emission limits for SO_2 and NO_x that PGE must meet. It is expected that PGE will rely on the following technologies to meet these limits and achieve the required emission reductions (but PGE could install alternative/equivalent controls). See DEQ's report BART Report for PGE Boardman on the website for more information on the proposed emission controls.

For SO_2 reduction, PGE would install semi-dry flue gas desulfurization (SDFGD). This level of control meets federal requirements for BART for SO_2. This technology is expected to reduce SO_2 emissions by about 80 percent, and is most compatible with mercury reduction controls previously required by DEQ. It is also expected that particulate emissions will be reduced about 29 percent as a side benefit of SO_2 control.

For NO_x reduction, PGE would install new low NO_x burners with modified over fire air by 2011, and then add selective catalytic reduction by 2018. New low NO_x burners (with modified over fire air) meet minimum federal requirements for BART for NO_x. This technology is expected to reduce NO_x emissions by about 46 percent. The addition of SCR controls will reduce NO_x emissions from the Boardman plant by about 84 percent.

Other Regional Haze Plan Strategies

Also part of this rulemaking is the adoption of revisions to the Oregon Smoke Management Plan by the Oregon Department of Forestry in 2007. These revisions include Enhanced Smoke Management Program criteria for visibility protection, and measures to minimize smoke impacts in Class I areas. DEQ is proposing to incorporate the OSMP (OAR 629-048-0001 through 629-048-0500) into the Oregon State Implementation Plan without any additional changes. No fiscal impact is expected from this action.

Overview of Cost Estimates

DEQ's proposed rule for the PGE Boardman power plant is expected to cost the four owners of this facility approximately $470 million dollars between 2010 and 2018. It is likely that the owners of the facility will seek to pass on those costs through increased electric rates. For Oregon rate payers, this process is governed by the Oregon Public Utility Commission. DEQ estimates that the average rate increase for PGE customers would be approximately 2.8 percent in 2014 and 4.1 percent by 2018. Between 2010 and 2014, rate increases could range from 0.2 percent to 0.3 percent.

DEQ's Fiscal Advisory Committee found that DEQ's proposed rule for PGE Boardman would have a significant **direct** economic impact on the four owners of the Boardman facility, and a significant **indirect** economic impact, through likely rate increases, on the public and businesses served by the Boardman plant, including small business.

Sources taking a FEPL as an alternative to BART

DEQ acknowledges that there are costs associated with the FEPL option described above, both in terms of reducing emissions to a level that no longer results in a significant visibility impact, and the fees for changing the air permits. However, the option of taking a federally enforceable permit limit is voluntary, and avoids the cost associated with conducting a BART control evaluation, and the cost of controls this may require. DEQ believes the fiscal impact for these sources pursuing this option is minimal, and represents an overall cost savings for these companies compared to the BART option. DEQ welcomes comment from these companies on the costs directly

	attributable to the permit conditions. **Regional Haze Plan** DEQ does not expect any fiscal impact from other elements of the 2008 regional haze plan beyond those described above.
Documents Relied Upon for Rulemaking	DEQ relied on EPA guidance documents, visibility analysis guidance developed by states, the Environmental Protection Agency (EPA) and federal land managers (such as the U.S. Forest Service), analysis conducted by DEQ staff, analysis conducted by DEQ's third-party engineering consultant Eastern Research Group (ERG), information provide by stakeholders, and analysis conducted by PGE, as well as on the discussion and recommendations of DEQ's Regional Haze Plan Fiscal Advisory Committee. Analysis by DEQ, ERG and PGE can be found at http://www.deq.state.or.us/aq/haze/index.htm. DEQ convened a fiscal advisory committee on October 13 and 14, 2008, to assist the agency in evaluating the financial consequences (scope and affect) of DEQ's PGE Boardman proposal, as well as offer insights into any fiscal consequences of other actions proposed under the 2008 Regional Haze plan. The meetings were held at DEQ Headquarters in Portland, in EQC A conference room. The fiscal committee members represented a cross section of interests likely to be affected by DEQ's PGE proposal, and who had expertise in assessing fiscal and economic impacts such as those associated with the controls proposed for PGE Boardman, and the likely rate increases that could affect the customers served by owners of the Boardman plant, including small businesses. In accordance with the charter for the committee, DEQ reviewed a draft of its fiscal report and this Fiscal Impact Statement with the committee, to determine if DEQ had reasonably characterized the costs and impacts of its rule proposal, with special emphasis on potential impacts to small business. DEQ's Fiscal Report serves as the basis for this Fiscal and Economic Impact Statement. The report includes DEQ's fiscal analysis as well as input from the Fiscal Advisory Committee. DEQ's Fiscal Report can be found at http://www.deq.state.or.us/aq/haze/pge.htm Other documents relied on include: EPA guidance for Best Available Control Technology http://www.deq.state.or.us/aq/haze/docs/bartcontrol.pdf DEQ report on BART controls for PGE Boardman http://www.deq.state.or.us/aq/haze/docs/deqBartReport.pdf Eastern Research Group report to DEQ http://www.deq.state.or.us/aq/haze/docs/ergMemo.pdf Copies of these documents, as well as the complete list of documents principally relied upon by DEQ, can be reviewed at the DEQ office at 811 S.W. 6th Avenue, Portland, Oregon. Please contact Brian Finneran at (503) 229-6278 for times when the documents and the complete list are available for review.

Requests 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 small business.**
Fiscal and Economic Impact, Statement of Cost Compliance	**DEQ Cost Estimates:** The cost estimates presented in this document are based on DEQ's best available information. DEQ has used its past experience with its recent PGE Boardman Mercury rule to estimate the range of possible electricity rate increases associated with this proposal, as well as recent information provided by PGE, and review from DEQ's Fiscal Advisory Committee. Any future rate increases are contingent on approval by the Public Utility Commission (PUC).
Overview of Negative Effects	The rules proposed by the DEQ consist of two parts: first, a rule requiring new emission controls on the PGE Boardman power plant, and second, other actions taken as part of the Regional Haze plan. DEQ proposed its rule for the PGE Boardman facility to reduce NO_x and SO2 emissions as part of the regional haze requirements for the installation of BART. This discussion of estimated negative fiscal and economic effects depends significantly on a number of assumptions made by DEQ that are listed separately below in the section titled "Assumptions." A. PGE Boardman Rule There are two types of negative fiscal and economic impacts related to this rule. First, installing new pollution control technology on this facility will represent a major capital investment and will have a **direct** economic impact on the owners of the Boardman power plant. Total capital costs for the full suite of NO_x and SO_2 controls are estimated at approximately $470 million dollars. Second, it is possible that these costs would be passed on to customers served by the Boardman plant through increased electric rates. These costs represent an **indirect** economic impact to the ratepayer. DEQ estimates that the average rate increase for PGE customers would be approximately 2.8 percent in 2014 and 4.1 percent in 2018. Between 2010 and 2014, rate increases could range from 0.2 percent to 0.3 percent. Estimated rate increases are described more fully in Tables 9, 10, and 11 of DEQ's Fiscal Report for the Regional Haze Plan and proposed PGE Boardman rule. Any future rate increases will be contingent on future actions taken by the Oregon Public Utility Commission (PUC). B. Other actions under the 2008 Regional Haze Plan There are four other actions being taken under this regional haze plan update that have potential fiscal impacts. These actions all involved industrial sources that have agreed to accept federally enforceable permit limits related to the BART requirements. First, DEQ has required the PGE Beaver power plant in Clatskanie to use cleaner diesel fuel (ultra low sulfur diesel) when operating their turbines, and will impose a daily limit on the volume of diesel fuel that can be burned. Second, DEQ has required the Georgia Pacific Wauna Mill in Clatskanie to meet a lower emission limit for SO_2 when operating a power boiler. Third, although the Amalgamated Sugar plant near Nyssa is currently shutdown, they will be required to either accept a limit or conduct a BART analysis by 2014 or before resuming operation, whichever is later. Fourth, DEQ and the Lane Regional Air Protection Agency (LRAPA) have required the International Paper facility in Springfield (formally Weyerhaeuser) to meet lower emissions limits

	for NO_x and SO_2. DEQ seeks comment from these facilities on what, if any, negative fiscal impacts these permit limits would have on their operations. Barring any new information, DEQ anticipates no significant fiscal impact to these companies or their customers from the new emission limits because these limits do not require any significant capital investment in these facilities. The option of taking a federally enforceable permit limit is voluntary, and avoids the cost associated with conducting a BART control evaluation, and the cost of controls this may require. DEQ believes the fiscal impact on these sources of pursuing this option is minimal, and represents an overall cost savings compared to evaluating and potentially installing BART emission control technology. <u>Other Aspects of the Regional Haze Plan</u> DEQ anticipates that other aspects of the proposed 2008 Oregon Regional Haze Plan will have no negative fiscal or economic affect on the general public.
Effects on General Public	<u>PGE Boardman Rule</u> DEQ and its fiscal advisory committee found that DEQ's proposed rule for the Boardman facility will not have a **"direct"** economic impact on the public, but will likely have a significant **"indirect"** economic impact through likely rate increases. (See the Assumptions section for a discussion of direct vs. indirect costs). DEQ anticipates that PGE and the other owners of the Boardman facility will seek to pass along compliance costs to customers by increasing electricity rates. In Oregon, the rate setting process is governed by the Oregon Public Utility Commission, and any rate increase is subject to PUC approval. Any rate increase will likely mirror the phase-in schedule of the required pollution controls. Major capital investments for the three main phases of control equipment installation are 2011, 2014, and 2018. If approved by the PUC, DEQ estimates increases in residential electric rates on the order of 0.2 percent in 2011, 2. 3 percent by 2014 and 3.5 percent by 2018. These rate increases are not additive. In other words, the rate increase by 2018 is not 0.3 percent + 2.3 percent + 3.5 percent. The maximum rate increase from today's level due to this rule would be about 3.5 percent, phasing in around 2018. These rate increases would only affect customers of the four utility companies that own the coal-fired power plant near Boardman, Oregon. DEQ understand these to be: • Portland General Electric (PGE), • BA Leasing BSC LCC, • Idaho Power Company, and • Power Resources Cooperative (PRC)) Estimated rate increases assume these customers are charged according to the "residential" rate class. Any such customer could experience a higher rate increase if

charged according to a different rate class (see rate estimates for other rate classes in the sections below, and in DEQ's Fiscal Report).

As an example of likely impacts: as of September 2008, the average monthly residential electric bill was $84.09. By the 2014 control milestone, that bill would likely increase $1.94 to $86.03 per month. By the final phase-in milestone, ten years from now (2018), that $86.03 bill would likely increase $1.00 to $87.03 per month. For context, the 2014 control phase would reduce SO_2 and NOx pollution from the Boardman plant by 66 percent, and the final 2018 control phase would reduce total SO_2 and NOx pollution by over 80 percent.

DEQ anticipates that PGE and the PUC will discuss the costs of DEQ's rule when PGE presents its Integrated Resource Plan to the PUC in 2009-10. The PUC may, or may not, approve PGE's request for rate increases. DEQ anticipates that the other owners of the Boardman facility would make similar requests to whichever Board governs electricity rates in their jurisdiction.

Potential delay in mercury controls

In 2006, the Environmental Quality Commission adopted regulations for the PGE Boardman power plant requiring the installation of emission controls that will reduce mercury emissions by 90 percent by 2012, with a possible extension to 2013. The mercury control system and the currently proposed BART controls for SO_2 are intertwined technologies that should ideally be designed and installed together as an integrated system. DEQ's proposal for BART would require installation of SO_2 controls by 2014. DEQ is proposing to align the compliance dates for BART and mercury controls. This rulemaking retains the July 1, 2012 compliance date for mercury controls, but proposes to change the extension period contingency from 1-year to 2-years. It also adds fly ash contamination as a contingency for granting an extension, and aligns compliance reporting to the compliance date. Some stakeholders may contend the extra year extension contingency for mercury controls could have a negative fiscal impact on public health by delaying the reduction in mercury emissions. DEQ believes that any adverse health risk of this potential delay is low, and that any potential negative economic consequences are not quantifiable.

Other Aspects of the Regional Haze Plan

DEQ anticipates that other aspects of the proposed 2008 Oregon Regional Haze Plan will have no negative fiscal or economic affect on the general public.

Positive Fiscal Impacts

DEQ's rule for PGE Boardman will eliminate approximately 21,000 tons per year of air pollution from the Boardman facility and significantly improve visibility in 14 federal wilderness areas in Oregon and Washington, as well as the Columbia River Gorge National Scenic Area. It will also significantly reduce the Boardman facility's contribution to acid deposition in areas such as the Columbia River Gorge, lessening the risk to important natural and cultural resources. Other aspects of the regional haze plan, such as emission reductions required from the PGE Beaver, Georgia Pacific, and

	International Paper facilities will also produce reduced air pollution and visibility improvement. While DEQ can estimate the amount of pollution reduced, and the expected improvement in visibility and acid deposition, it cannot estimate with certainty the financial benefit to the public of these improvements. Such an analysis would involve extremely complex interrelationships and assumptions about the economic value of environmental improvements and public health and welfare. DEQ is not aware of any viable methodology for such an analysis. However, even though DEQ can not quantify these benefits in dollar terms, DEQ believes they do exist and should be acknowledged. In addition, according to PGE, there will likely be approximately 300-400 short-term jobs associated with the construction of Phase-1 and Phase 2 pollution controls, with related benefits to the local economy. PGE may also need to hire several new staff positions as well.
Effects on Small Business (50 or fewer employees – ORS183.310(10)) The Legislature has defined a "small business" as a for profit entity that is independently owned and operated from all other businesses and that has 50 or fewer employees.	PGE Boardman Rule: Based on discussion by the Fiscal Committee, DEQ finds that its proposed rule would not have a **direct** economic impact on small business, but could have a significant **indirect impact** on small business through increased electricity rates. Pursuant to Oregon statute (ORS 183.540), DEQ and its Fiscal Advisory Committee discussed options for reducing the economic impact on small business, while still upholding the public health and safety purposes of the proposed rule. Since DEQ's rule does not apply to small businesses or establish any requirements for small business, there is no direct cost of compliance for small businesses that can be reduced. Several committee members suggested various options for DEQ to consider that could reduce the overall cost of the rule. Some of those options would involve proposing less stringent pollution controls. This would lessen the **direct** economic impact on the owners of the Boardman plant, and therefore lessen the **indirect** cost to rate payers, including small business. However, these options would also undermine the purpose of the rule, and are not supported by DEQ, or several members of the Fiscal Committee. For more information about the Fiscal Committee's discussion, see the Fiscal Committee report is available on-line at http://www.deq.state.or.us/aq/haze/pge.htm. Also, an excerpt from the Fiscal Committee's discussion of small business impacts can be found at the end of this Fiscal Statement under the Advisory Committee" section. DEQ does support several recommendations made by the Fiscal Committee that can help lessen the overall burden and impact of the rule without undermining its environmental effectiveness. These include: • Aligning the installation schedule for SO_2 and mercury controls to make that process as cost effective as possible. • Allowing the use of alternative (and potentially less expensive) pollution control technologies. Different technologies can be used by PGE in the future as long as PGE meets the required emission limits.

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- Developing a communication strategy with rate payers to provide notice well in advance, so that future rate increases can be factored into long range business plans.

- Have DEQ engaged in PGE's integrated resource planning process as it proceeds.

If approved by the PUC, DEQ estimates increased small business electric rates on the order of 0.3 percent in 2011, and in the range of 2.9 to 3.4 percent by 2014, and 4.2 to 5.0 percent by 2018, if the small business was charged according to either the "small commercial" (lower range) or "medium commercial/industrial" (upper range) rate class. Small business charged at the residential rate class would experience lower rate increases. Rate increases would only affect customers of the four utility companies that own the Boardman coal-fired power plant (Portland General Electric (PGE), BA Leasing BSC LCC), Idaho Power Company, and Power Resources Cooperative (PRC).

As an example of likely impacts, as of September 2008, the average monthly "small business" electric bill ranged from approximately $84.09 to $143.09, depending on which rate class applies (residential or small commercial). By the 2014 pollution control milestone, that bill would likely increase in the range of $1.94 to $4.15, to a range of $86.03 to $147.24 per month. By the final phase-in milestone, ten years from now (2018), an average bill today would likely increase $2.94 - $6.01, to a range of $87.03 to $149.10 per month. (See DEQ's Fiscal Report, Table 11). Again for context, the 2014 control phase would reduce SO_2 and NOx pollution from the Boardman plant by 66 percent, and the final 2018 control phase would reduce total SO_2 and NOx pollution by over 80 percent.

<u>Other Aspects of the Regional Haze Plan</u>

DEQ anticipates that other aspects of the 2008 Regional Haze Plan will have no negative fiscal or economic affect on small business.
</td></tr>
<tr><td rowspan="3">Cost of Compliance on Small Business (50 or fewer employees – ORS183.310(10))</td><td>a) The estimated number of small businesses subject to DEQ's proposed rule.</td><td><u>PGE Boardman Rule:</u>
None.

<u>Other Aspects of the Regional Haze Plan:</u>
None.</td></tr>
<tr><td>b) The types of businesses and industries with small businesses subject to DEQ's proposed rule.</td><td><u>PGE Boardman Rule:</u>
None.

<u>Other Aspects of the Regional Haze Plan:</u>
None.</td></tr>
<tr><td>c) The projected reporting, recordkeeping and other administrative activities required by small businesses for compliance with DEQ's proposed rule.</td><td><u>PGE Boardman Rule:</u>
None.

<u>Other Aspects of the Regional Haze Plan:</u>
None.</td></tr>
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<tr><td></td><td>d) The equipment, supplies, labor, and increased administration required by small businesses for compliance with DEQ's proposed rule.</td><td><u>PGE Boardman Rule:</u>
None.

<u>Other Aspects of the Regional Haze Plan:</u>
None.</td></tr>
<tr><td></td><td>e) A description of the manner in which DEQ involved small businesses was involved in the development of this rulemaking.</td><td><u>PGE Rule and Regional Haze Plan:</u>

DEQ's Fiscal Advisory Committee included representatives from Oregon Associated Industries, Oregon Business Association, and DEQ's small business Compliance Assistance Program (CAP). The public, including small business, was also invited to provide comments to DEQ during the pre-proposal phase of the rulemaking (i.e. prior to DEQ initiating formal rulemaking in December 2008).</td></tr>
<tr><td>Negative Effects on Large Business
(all businesses that are not "small businesses" under ORS183.310(10))</td><td colspan="2"><u>PGE Boardman Rule:</u>

DEQ anticipates that its proposed rule will directly impact only those large businesses that own the coal-fired power plant near Boardman, Oregon because DEQ's proposed BART rule would apply only to that plant. DEQ understands the owners of those businesses to be Portland General Electric (PGE), BA Leasing BSC LCC, Idaho Power Company, and Pacific Resources Cooperative/PNGC Power (PRC). DEQ estimates that its proposed rule will cost the owners of the Boardman facility approximately $470,803,000, and result in direct annualized economic impacts and increased costs of compliance of:

PGE: $48,625,000
BA LEASING: $11,221,000
PRC: $ 7,480,000
Idaho Power: $ 7,480,000
Total $74,807,000

• Total costs are allocated to each owner in proportion to their share of ownership in the Boardman facility.

• Cost estimates are projected for different stages of construction through 2018, including estimates for inflation and cost escalation, and are presented here in 2007 dollars.

Potential Cost Benefits to owners of the Boardman power plant and their customers

<u>Acid Rain Allocations</u>

The national Acid Rain Program is a cap and trade program operated by EPA. The</td></tr>
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goal is to reduce SO_2 emissions and acid deposition across the country, by having a declining cap on total SO_2 from electric generation facilities, and allowing these facilities to buy & sell credits as needed, while staying under the cap. Electric power generation facilities with SO_2 credits (generated from emissions reductions) can sell those credits to other facilities. DEQ's current understanding is that under this federal program, PGE Boardman owners may convert SO_2 reductions into credits, and sell those credits to another power plant (in Oregon or out of state), if that facility wants to purchase them.

It is difficult to predict what the price of an SO_2 allowance (credit) will be in the future. However, based on EPA's annual auctions and the current spot market price, the price has ranged from $100.00 to $800.00 per allowance over the last 4 years. It is estimated that owners of the Boardman facility would have about 10,500 allowances to sell after full implementation of the Phase I SO_2 controls in 2014. Current federal SO_2 allocations for the Boardman Plant equal 13,401 tons per year. The projected potential emissions after installation of SO_2 controls (SDFGD) are 2,914 tons per year (one ton of SO_2 pollution equals one SO_2 allowance). The potential allocations available for sale would be: 13,401 - 2,914 = 10,487 tons/yr. Under this scenario, the potential economic benefit to the Boardman facility owners could range from approximately 1.0 to 8.4 million dollars. However, the day-to-day value of SO_2 allowances are set by an open market, and could be zero dollars if at any given time more credits exist in the market than there is demand.

Adjustment to 2006 cost estimates for Mercury controls.

DEQ's 2006 mercury rulemaking for PGE Boardman used a high control cost scenario, pairing mercury controls with a wet scrubber for BART, because at the time it was not known what SO_2 controls would constitute BART. DEQ has proposed a semi-dry scrubber as BART, which includes a baghouse than can also be used for mercury control. A semi-dry scrubber system is less expensive that a wet-scrubber system. This means that the cost of the mercury rule will be approximately $46 million less than initially estimated in 2006. Additional controls for mercury removal involve adding a carbon injection and monitoring system to the BART SO_2 control system, with a capitol cost of about 3 million. This also means that the rate increases estimated in the mercury rule will be about 80 percent less than anticipated in 2006.

Improved Boiler Efficiency.

The maintenance and installation of new burners under the proposed Phase 1 controls for NOx may improve boiler efficiency, producing more steam and more electricity. This possible cost benefit was discussed by the fiscal committee. Several committee members raised it as a likely cost benefit to PGE. PGE did not think the boiler modifications would produce a cost benefit.

Other Large Business

DEQ does not anticipate any **direct** fiscal or economic impacts to any other large business from its proposed PGE Boardman rule.

However, DEQ notes that its proposed rule for PGE Boardman will **indirectly** affect large business, in general, because it could result in an increase in electricity rates (for customers of the Boardman power plant) on the order of 0.4 percent by 2011, in the range of 3.4 percent to 3.7 percent by 2014, and in the range of 5.0 percent to 5.4 percent by 2018. This assumes such customers are charged according to the 'medium Commercial/Industrial" to "Large Industrial" rate classes. Industrial customers within other rate classes would experience lower rate increases.

There is much more variety in power demand among large industrial customers than for residential or small business, so it is difficult to obtain a representative example for these rate impacts. According to information from PGE, larger industrial customers use in the range of 35,000 to 11 million kilowatts per month and are charged at various rates ranging from 7.2 cents per kilowatt to 15.9 cents per kilowatt.

As an example of likely impacts, as of September 2008, the average monthly "large industrial" electric bill was approximately $38,156.65 per month. By the 2014 pollution control milestone, that bill would likely increase by approximately $1,411 to $39,568 per month. By the final phase-in milestone, ten years from now (2018), an average bill would likely increase an additional $648 to 40,217 per month. (See DEQ's Fiscal Report, Table 11). Again for context, the 2014 control phase would reduce SO_2 and NOx pollution from the Boardman plant by 66 percent, and the final 2018 control phase would reduce total SO_2 and NOx pollution by over 80 percent.

[Note: the example above for "Large Industrial" rate impacts, DEQ used a moderate example of a facility using over 1,000 KW per month (in this case 524,490 KW/month), charged at a rate of 7.3 cents per kilowatt). This example seems to be the middle ground of possible large scale industrial power users. According to PGE, they currently have 267 "large" industrial customers.]

Other Aspects of the Regional Haze Plan.

DEQ anticipates that other aspects of the 2008 Oregon Regional Haze Plan, including new emission limits at the PGE Beaver, International Paper, Georgia Pacific (Wauna), and Amalgamated Sugar facilities, will have no negative fiscal or economic affect on large business. As stated earlier, DEQ believes the fiscal impact on these sources of revising their current air permit to lower emissions is minimal, and represents an overall cost savings compared to evaluating and potentially installing BART emission control technology.

Negative Effects on Local Government	PGE Boardman Rule: DEQ does not anticipate any **direct** fiscal or economic impacts on any local government from DEQ's proposed rule for the PGE Boardman facility. DEQ estimates that its proposed rule will **indirectly** affect local governments because it could result in increased electricity rates (for customers of the owners of the Boardman power plant) on the order of 0.3 percent by 2011, in the range of 2.9 percent to 3.4 percent by 2014, and in the range of 4.2 percent to 5.0 percent by 2018, assuming such customers are charged according to the "small commercial "or "medium commercial/industrial" rate class. Local governments charged under the "residential" rate class would experience lower rate increases. **Other Aspects of the Regional Haze Plan** DEQ anticipates that other aspects of the 2008 Regional Haze Plan will have no negative fiscal or economic affect on local government.
Negative Effects on State Agencies Other than DEQ	PGE Boardman Rule: DEQ does not anticipate any **direct** fiscal or economic impacts on any state agencies from its proposed PGE Boardman rule. DEQ estimates that its proposed rule will **indirectly** affect state agencies because it could result in increased electricity rates (for customers of the owners of the Boardman power plant) on the order of 0.3 percent by 2011, in the range of 2.9 percent to 3.4 percent by 2014, and in the range of 4.2 percent to 5.0 percent by 2018, assuming state agencies are charged according to the "small commercial "or "medium commercial/industrial" rate class. State agencies charged under the "residential" rate class would experience lower rate increases, in the range of 0.2 percent to 3.5 percent between 2011 and 2018. While most state agencies are within PGE's service area, those agencies that are not served by PGE or any of the other Boardman plant owners will not have a rate increase due to the proposed rule. **Other Aspects of the Regional Haze Plan** DEQ anticipates that other aspects of the 2008 Oregon Regional Haze Plan will have no negative fiscal or economic affect on state agencies.

Negative Effects on DEQ	PGE Boardman Rule: DEQ does not anticipate any direct fiscal or economic impacts from DEQ's proposed rule on DEQ. DEQ estimates that its proposed rule will **indirectly** affect DEQ because it could result in an increase in electricity rates on the order of 0.3 percent by 2011, in the range of 2.9 percent to 3.4 percent by 2014, and in the range of 4.2 percent to 5.0 percent by 2018, assuming DEQ operations are charged according to the "small commercial "or "medium commercial/industrial" rate class. DEQ operations charged under the "residential" rate class would experience lower rate increases, in the range of 0.2 percent to 3.5 percent between 2011 and 2018. Rate increases will only affect any DEQ utility accounts with the four owners of the Boardman power plant, noted previously. **Other Aspects of the Regional Haze Plan** DEQ anticipates that DEQ will not experience any negative fiscal or economic effects from its proposed rules.
Positive Effects on All Categories	As discussed previously (see section on benefits to the general public and to the owners of the Boardman facility), DEQ's rule for PGE Boardman will eliminate approximately 21,000 tons per year of air pollution from the Boardman facility and significantly improve visibility in 14 federal wilderness areas in Oregon and Washington, as well as the Columbia River Gorge National Scenic Area. It will also significantly reduce the Boardman facility's contribution to acid deposition in areas such as the Columbia Gorge. Other aspects of the regional haze plan, such as emission reductions required from the PGE Beaver, International Paper, and Georgia Pacific facilities will also reduce air pollution and improve visibility. Conceptually, reduced air pollution from the Boardman facility could provide an economic benefit to the public in terms of reduced health risk, however any such benefit is not quantifiable at this time. According to PGE, there will likely be approximately 300-400 short-term jobs associated with the construction of Phase-1 and Phase 2 pollution controls, with related benefits to the local economy. PGE may also need to hire several new staff positions as well. Reducing SO_2 emissions could result in SO_2 emission credits (allowances) that the owners of the Boardman facility may be able to sell under the federal Acid Rain Program. The value of any such credits would depend on market conditions at the time, and may range from several hundred dollars per ton to zero dollars per ton. Improvements to the Boardman facility's boiler may result in energy efficiencies and could have an economic benefit for the owners of the plant, although this is uncertain at this time. Over time, DEQ will develop a suite of strategies under the regional haze plan that will reduce haze causing air pollution in Oregon. Other states will develop their own haze reduction strategies as well under the federal regional haze program in order to meet Clean Air Act requirements for visibility improvement. These actions to reduce haze pollution will help protect and improve the scenic vistas in wilderness areas, national

	parks, and scenic areas, as well as help reduce acid deposition, which can pose some risk to sensitive ecosystems and valued cultural resources, such as Native American rock images. While haze pollution generally poses a low risk to public health, any significant reduction in air pollution should have some benefit to public health and welfare. While DEQ cannot quantify all possible benefits of the regional haze strategies, DEQ believes they do exist and should be acknowledged.
Assumptions	DEQ wishes to provide public notice of what are likely to be the negative and positive fiscal and economic effects of its proposed rule for PGE Boardman and the regional haze plan. PGE Boardman Rule: Given the complexities of estimating costs for such a large scale project as retrofitting the Boardman power plant, DEQ hired a national consulting firm (Eastern Research Group) to do an independent assessment of the likely costs of pollution controls. ERG was hired specifically to evaluate performance and cost factors for NO_x control, because there is a wider array of options for NO_x control than for SO_2. ERG's report to DEQ is available at http://www.deq.state.or.us/aq/haze/pge.htm. DEQ reached its conclusions after conducting its own independent assessment of costs and emission performance factors. DEQ's analysis took into consideration ERG's report, information provided by PGE, as well as information provided by other stakeholders. DEQ believes it has captured the likely range of costs associated with its proposed rule for the Boardman facility, given all the complexities of estimating costs for projects of this scale. "Cost of Compliance" (or **Direct Costs**) refers to costs borne by the entities directly regulated under the proposed determination (i.e. the owners of the Boardman facility). **"Indirect costs"** include the cost of any rate increase. "Fiscal impact" and "economic impact" are used interchangeably throughout the document. DEQ's estimates of rate increases are based on best available information, including a recent analysis by PGE. Actual future rate increases will be subject to the rate setting process governed by the Public Utility Commission. The affect of any potential future pollution control tax credits are not included in these cost estimates. DEQ and PGE assume the remaining useful life of the Boardman coal-fired power plant is 20 years or more. DEQ's cost estimates for SO_2, NOx, and particulate control at the Boardman coal-fired power plant do not consider, or attempt to account for, any potential future costs associated with greenhouse gas reduction. These costs, if any, are not known at this time, and are dependent on future state and federal climate change regulation.

	Information on average electric bills for residential, small business, and large business customers was provided by PGE in October 2008. Other assumptions are outlined in DEQ's Fiscal Advisory Committee report.
Advisory Committee	DEQ formed a fiscal impact advisory committee in accordance with the Oregon Administrative Procedures Act, ORS 183.310 et seq. (APA) and to meet the requirements in ORS 183.333.The committee was used to evaluate the fiscal and economic impacts of this rulemaking and provide recommendations to DEQ. Fiscal Committee report is available on line at http://www.deq.state.or.us/aq/haze/index.htm. The following excerpt is from Section B.5 of the DEQ's Fiscal Report regarding the findings of the Fiscal Advisory Committee on likely impacts to small business: Do DEQ's proposed controls for PGE Boardman have a fiscal impact? Committee response: Yes. ***What is the extent of this impact?*** Committee response: In addition to the direct cost impacts on the four owners of the PGE Boardman plant, as described by DEQ in this report, the extent of the fiscal impact is expected increases in electricity rates for customers of the Boardman power plant. These rate increases represents "indirect" costs to customers. Citizens and business who are not customers of the Boardman power plant should not be affected by DEQ's proposal. ***Is there is significant adverse impact on small businesses?*** Committee response: DEQ's rulemaking will affect electricity rates for all rate payer groups, including small businesses. The committee agreed that while there are no direct impacts on small businesses, there are potentially significant adverse indirect impacts on small businesses, as a result of the electricity rate increases outlined in this fiscal impact report. ***Can the adverse economic impact of the rule on small business be reduced in a way that maintains the public health and safety purpose of the proposed rule?*** Based on the committee's finding of an adverse economic impact on small business, ORS 183.540 requires the state agency to consider options to reduce the economic impact on small businesses, to the extent consistent with the public health and safety purpose of the proposed rule. The committee discussed the language of this statute at length and did not agree on its applicability. Some committee members thought this statute was only applicable to the "cost of compliance", or direct costs of a proposed rule, and not indirect costs. DEQ's proposed rule does not impose any new requirements directly on small business. Since there is no direct "cost of compliance" for small business, the directive to consider lessening the cost impact does not apply. Small business is only affected indirectly by the rule.

Other committee members thought that since PGE is certain to try and pass its cost of compliance on to rate payers, this might be considered more of a direct "cost of compliance" on rate payers, and therefore the statute would be applicable.

Other committee members noted that even if the statute were applicable, most options available to reduce costs would not be consistent with the statutory language to uphold the "public health and safety purposes" of the rule. It was not the committee's charge to resolve the interpretation of this statute. Several committee members suggested DEQ consider the following in its evaluation of lessening the impact on small businesses.

1. Line up the schedule for installing mercury controls with DEQ's first phase of installing SO_2 controls.
2. Extend the first phase BART NOx and SO_2 control compliance date out to five years after EPA approval of the Oregon Regional Haze plan (Approval will likely occur in 2009-2010 moving the compliance date to 2014-2015).
3. Extend the second phase of NOx control (SCR) compliance date beyond 2018.
4. Eliminate or modify the second phase controls for SCR.
5. Drop the SNCR contingency measure under the first phase of required controls.
6. Allow the use of alternative technologies to meet the required emission limits.
7. Develop a communications plan to help small businesses plan ahead for future rate increases.
8. Have DEQ more engaged in the IRP process, especially as it relates to upcoming possible regulations on climate change.

Signed version on file with the Department Prepared by	David Collier Printed name	11/13/08 Date
Signed version on file with the Department Approved by DEQ Budget Office	Jim Harris Printed name	11/13/08 Date

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Land Use Evaluation Statement

Rulemaking Proposal
for
2008 Oregon Regional Haze Plan
and new controls for the PGE Boardman power plant

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

   Over the next several decades, DEQ must develop a series of Regional Haze plans to meet Clean Air Act requirements for incrementally reducing haze pollution and improving visibility in federal "Class I" wilderness areas and national parks. DEQ has developed the proposed 2008 Regional Haze Plan to take the next step in haze reduction. The most significant action contemplated for the 2008 Regional Haze plan is DEQ's proposed rule for requiring emission controls at the PGE Boardman coal-fired power plant, in response to the federal requirement for Best Available Retrofit Technology (BART). DEQ is also proposing four other BART-eligible facilities reduce their emissions and change their permits to ensure they will not cause a significant impact on visibility in Oregon Class I areas. Included in this rulemaking is the adoption of revisions made to the Oregon Smoke Management Plan (OSMP) by the Oregon Department of Forestry in 2007. DEQ is proposing to incorporate the OSMP into the Oregon State Implementation Plan without any additional changes.

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 issuance of air permits is an action determined to have effects on land use. DEQ will implement the proposed rulemaking through the Title V Operating Permit Program and DEQ's Air Contaminant Discharge Permit (ACDP) Program.

   The OSMP has effects on land use. However, DEQ is proposing no changes to the OSMP, other than adopting it into the Oregon State Implementation Plan. Previous review of the land use impacts was conducted by the Oregon Department of Forestry when it adopted revisions to the OSMP in 2007.

   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.

Not applicable.

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

Not applicable.

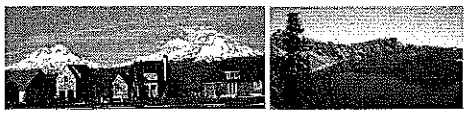
3. If the proposed rules have been determined a land use program under 2. above, but are not subject to existing land use compliance and compatibility procedures, explain the new procedures the Department will use to ensure compliance and compatibility.

Not applicable.

J

HANDOUT

Presentation: Proposed Adoption of DEQ Regional Haze Rulemaking



Agenda Item J
Proposed adoption of the
Oregon Regional Haze Plan
and
New Controls for PGE Boardman Power Plant

June 19, 2009

What we will be covering

- Our recommendation on this rulemaking
- Rulemaking background – how we got here
- Review of Public Comment Process
  - ➢ Our evaluation of over 1200 comments
  - ➢ Rationale for our recommendation

DEQ staff present:

- Brian Finneran, DEQ Regional Haze Coordinator

- Mark Fisher, DEQ Senior Permit Writer

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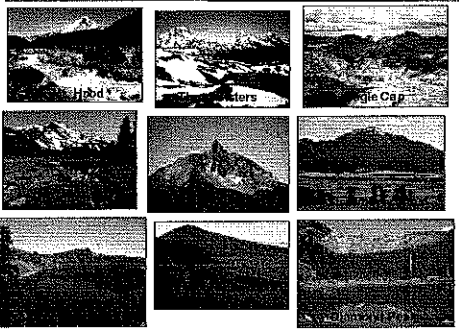
Why this rulemaking is important



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Why this rulemaking is important

➢ **Results from DEQ's 3-year effort to develop a comprehensive regional haze plan to enhance Oregon's national park and wilderness areas.**

Involves the following rulemaking:

1. 2008 Oregon Regional Haze Plan
2. Regional Haze Rules for PGE Boardman and other BART sources.
3. Related items:
   - Revised Oregon Smoke Management Plan
   - Proposed changes to Mercury Rules

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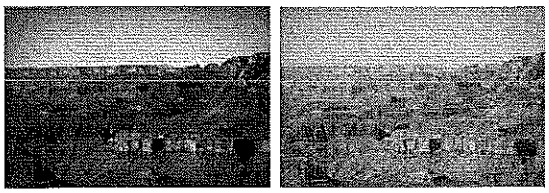
The Problem

Haze Pollution in Grand Canyon National Park



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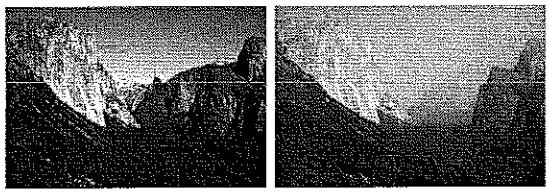
The Problem

Haze Pollution in Yosemite National Park



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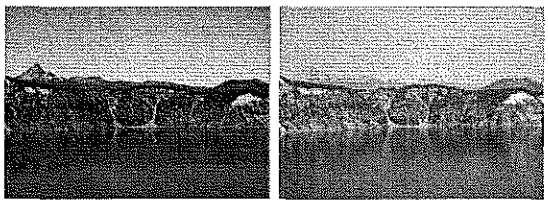
Presentation: Proposed Adoption of DEQ Regional Haze Rulemaking

The Problem

Haze Pollution in Crater Lake National Park



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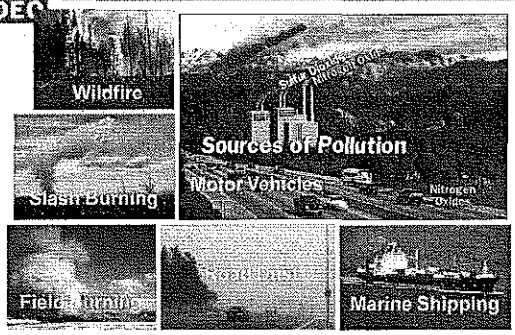
Many Sources of Haze



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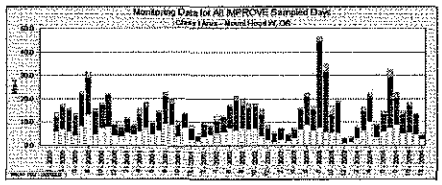
Components of Haze

- Sulfur Dioxide (SO_2)
- Nitrogen Oxides (NOx)
- Organic Carbon
- Elemental Carbon
- Fine Soil
- Coarse



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Air Pollution and Haze

Small amounts of air pollution can have significant effect on visibility

Visual range in Oregon Cascades:
25-200 miles

Visibility measured in Deciview:
1 Dv = perceptible change to most people.
0.5 Dv = the "limit of perceptible change"

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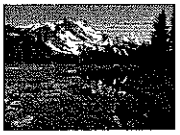
EPA's Regional Haze Rule

- Adopted in 1999 to address 156 Class I areas.
- **2064:** improve the **Worst** (20% haziest) days, and protect the **Best** (20% clearest) days.
  - For worst days, reach "natural conditions"
  - For best days, "no degradation of visibility".
- Must adopt a state regional haze plan and update it every 5 years.
- First plan due Dec. 2007



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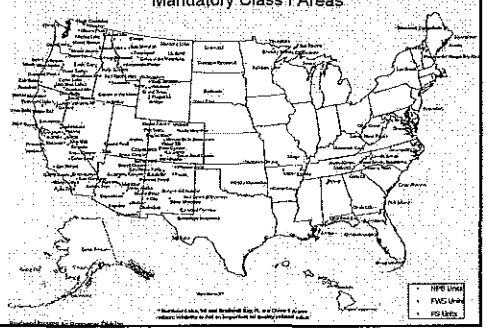
156 Class I Areas in U.S.

Mandatory Class I Areas



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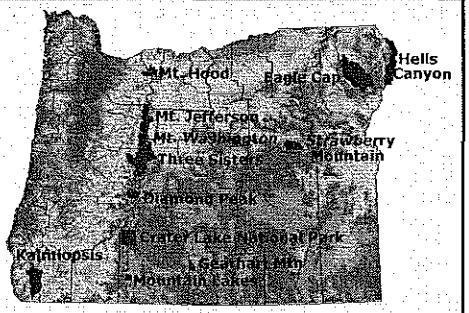
Presentation: Proposed Adoption of DEQ Regional Haze Rulemaking

Oregon's 12 Class I Areas



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EPA's Regional Haze Rule

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  - For worst days, reach "natural conditions"
  - For best days, "no degradation of visibility".
- Must adopt a state regional haze plan and update it every 5 years.
- First plan due Dec. 2007

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First Regional Haze Plan

- **"Reasonable Progress"** by 2018 Milestone
- **BART** (Best Available Retrofit Technology).
- **Long-Term Strategy**

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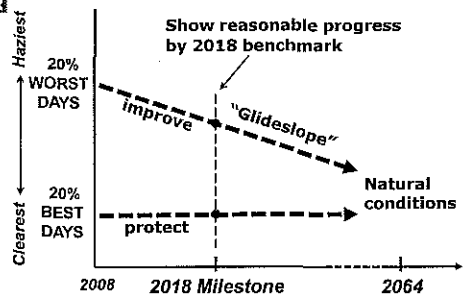
First Regional Haze Plan



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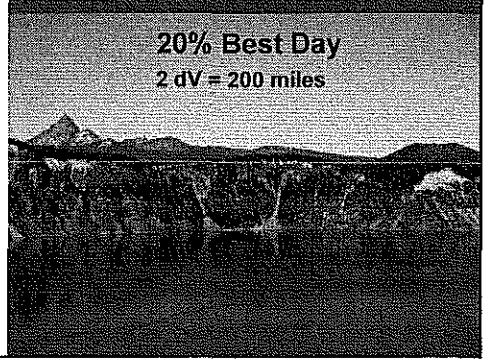
Crater Lake National Park



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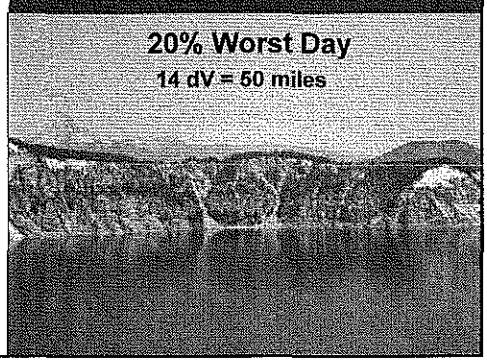
Crater Lake National Park



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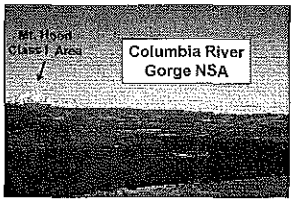
Presentation: Proposed Adoption of DEQ Regional Haze Rulemaking

The Columbia Gorge NSA

- Established under the Gorge Scenic Area Act in 1986. Not a Class I area.
- Will see significant visibility benefits due proximity to nearby Class I areas, such as Mt. Hood.



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What's in Oregon's Regional Haze Plan?

1. Comprehensive analysis of haze in Oregon's 12 Class I areas.
2. Projects emissions and visibility in 2018
3. Reasonable Progress Demonstration for each Class I area.
4. Long-Term Strategy for making visibility improvements over next 10 years.
5. BART review for PGE Boardman Power Plant and other BART-eligible facilities.

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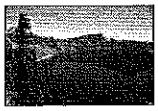
Demonstration of Reasonable Progress

- 20% Best Days show reasonable progress.
- 20% Worst Days fall short of 2018 Milestone.
- Requires additional emission reductions.
- PGE Boardman is the single largest industrial source of haze in Oregon.
- Commitments in Long-Term Strategy for additional visibility improvements.



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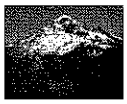
Long-Term Strategy

Primary focus next 5 years:

1. **"Non-BART" Industrial sources.** About 44% of state industrial emissions. DEQ to undertake major evaluation of these sources
2. **Forestry Prescribed Burning.** Determine contribution to haze and adopt additional smoke management controls if needed.



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DEQ's BART Review

- Evaluated over 100 potential BART sources.
- 10 sources were "BART-eligible."
- Conducted visibility modeling to determine if causing "significant impact" of 0.5 deciview:
  - "limit of a perceptible change"
  - same level used for new industrial sources under PSD rules.
- 5 of the 10 sources showed significant impact.

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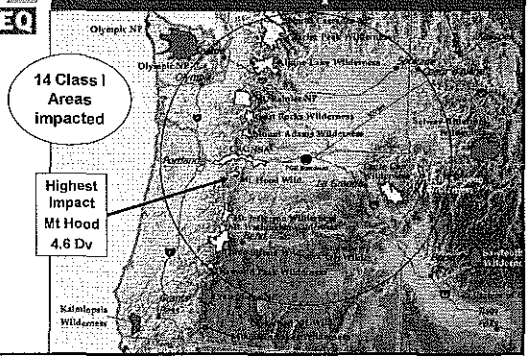
PGE Boardman Modeled Impacts



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Presentation: Proposed Adoption of DEQ Regional Haze Rulemaking

The FEPL Option

Federally Enforceable Permit Limit (FEPL)

- Alternative to BART allowed under federal guidance.
- Requires source to reduce emissions below 0.5 dv visibility impact. Permanent change to permit.
- 4 BART-eligible sources chose FEPLs:
  1) PGE Beaver gas-fired power plant
  2) Georgia Pacific, Wauna Mill (pulp & paper plant)
  3) International Paper (formally Weyerhaeuser Springfield)
  4) Amalgamated Sugar, sugar beet plant

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Proposed Controls for PGE Boardman

Phase 1 Controls (BART)

- **2011 - NOx Combustion controls** (low NOx burners with modified over fire air). Cost $32.6 million. 46% emission reduction.
- **2014 - SO_2 Scrubbers** (semi-dry flue gas desulfurization). Cost $247 million. 80% emission reduction.

Phase 2 Controls (beyond BART)

- **2017 - Selective Catalytic Reduction (SCR) controls.** Additional NOx reduction. Cost $191 million. Increases NOx reduction from 46% to 84%

= $471 million total cost

= 21,000 tons/year emission reduction

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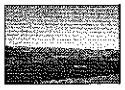
Justification for Phase 2 SCR

1. Magnitude of PGE Boardman visibility impacts.
2. Needed for reasonable progress by 2018 Milestone.
3. SCR achieves 84% NOx reduction consistent with 80% from SO2 controls, at similar cost per ton.
4. Additional benefits to air quality, reducing acid deposition, Gorge visibility, protecting Native American rock art and other cultural resources.



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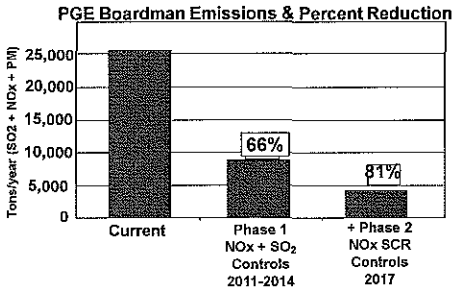
Emission Reductions from Proposed Controls



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Visibility Improvements from Proposed Controls

PGE Boardman Reduction in Peak Impacts

	Peak Impact	Phase 1 NOx, SO2	+ Phase 2 NOx (SCR)
Mt. Hood Wilderness	4.6 dv	2.5 dv	0.9 dv
Columbia Gorge NSA	3.7 dv	2.1 dv	0.8 dv
Mt. Ranier Nat'l Park WA	2.0 dv	0.9 dv	0.4 dv
Total Class I areas impacted over 0.5 dv	14	12	4
Total Class I areas impacted over 1 dv	14	6	0

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Proposed changes to Mercury Rule

- Two modifications that would allow DEQ to grant extension to the 2012 compliance date for PGE Boardman.
  1. Rules currently allow 1 year extension. Proposing a 2 year extension to align installation of Mercury controls with SO2 controls required in 2014.
  2. Adds "fly ash contamination" as a reason for granting extension.
- Received some comments in opposition to #1 above.

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HANDOUT

Presentation: Proposed Adoption of DEQ Regional Haze Rulemaking

Proposed adoption of Oregon Smoke Management Plan

- OR Dept of Forestry adopted changes to the Oregon Smoke Management Plan in 2007.
- Included new voluntary provisions to protect Class I area visibility from prescribed burning smoke.
- Proposed Oregon Reg Haze Plan references these provisions.
- Need to adopt OSMP into the State Implementation Plan as part of this rulemaking.

31

Rulemaking development and Public Comments

- Stakeholder Involvement
  - Large public workshop, outreach, DEQ Fiscal Advisory Committee.
- Public Comment Process
  - 60-day comment period, 5 public hearings, 2-week extension of comment period
- Summary of Public Comments
  - 111 persons attended hearings, 45 provided testimony, over 1200 comments received.

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Overview of Public Comments

✓ Majority of comments on proposed controls for PGE Boardman, and PGE proposal to add future "decision points" closure options.

✓ Heard from all major stakeholder groups and large number of general public.
- *EPA, National Park Service, US Forest Service*
- *PGE, industry, business and utility related groups*
- *Environmental groups*
- *Tribal Nations*
- *General Public*

✓ Attachment B is 40-page point-by-point DEQ response to comments.

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Key Comments and Response

1. ***Stringency of emission limits.*** *Many commenters agreed with proposed controls – but disagreed with the emission limits – should be set* ***lower.***

DEQ response:
- The limits we identified do reflect lowest levels achievable in practice, in our judgment.
- Emission limits need to take into account normal fluctuations in emissions.
- Permit limits need to be set at a level that will ensure compliance.
- Actual emissions will be lower than permitted levels.

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Key Comments and Response

2. ***Stringency of SCR controls.*** *Many comments for and against. Those in favor want them sooner (by 2014). Those against cited high cost, limited visibility benefit, and unfairly single out PGE.*

DEQ response:
- SCR controls are not typical for BART.
- SCR installation by 2014 is not reasonable.
- SCR essential for reasonable progress by 2018.
- SCR provides other environmental benefits.
- SCR is as cost-effective as the SO2 scrubbers.

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Key Comments and Response

3. ***Stringency of timing of proposed controls.***

Many comments in favor of installing controls as soon as possible – faster than DEQ proposed.

DEQ response:
- Timetable we identified is realistic.
  - Phase 1 NOx combustion controls in 2011.
  - SO_2 scrubbers in 2014 is reasonable due to complex retrofit and competition with other BART sources, still sooner than required
  - SCR controls need until 2017 due to significant boiler modifications.

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HANDOUT

Presentation: Proposed Adoption of DEQ Regional Haze Rulemaking

Key Comments and Response

4. ***Fiscal impact.*** *Many comments cited overall cost of proposed controls as too high and will result in large electricity rate increases.*

DEQ response:

- DEQ Fiscal Advisory Committee agreed with the accuracy of DEQ's fiscal analysis
- Proposed controls are expensive, but are cost effective given overall environmental benefit.
- 3-4% rate increase estimated by 2018. Will be phased in gradually with most increase at end.
- Rate increases must be approved by PUC.

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Key Comments and Response

5. ***PGE's Decision Points proposal.*** *Closure options for 2012 and 2015, to give PGE flexibility to plan ahead and make sound economic decisions once impact of carbon regulations are known.*

Plant would still install Phase 1 NOx controls in 2011 and Mercury controls by 2012.

Carbon regulations are on the horizon

Cost of regulations are unknown, but may force closure of the plant

Avoids investing in expensive regional haze controls, if the plant is closed down due to carbon regulations

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Key Comments and Response

✓ ***DEQ response:***

- Understands PGE concerns
- Carbon regulations are uncertain at this time
- Proposal would allow continued operation without SO2 controls through 2020 or SCR controls through 2029
- Closure options may be reasonable based on:
  - Complete technology analysis
  - Adequate public process
- DEQ recommends an alternative to PGE's proposal

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Key Comments and Response

✓ ***DEQ's alternative to PGE's proposal:***

- Amended RH Plan to include provisions to review and expedite PGE rule change request.
- Prefer PGE make request when more is known about the impact of carbon regulations.
- Provide a complete BART analysis
- Provide opportunity for Public to review DEQ's analysis
- Allow sufficient time to process request.
- See Attachment A-6 for proposed language.

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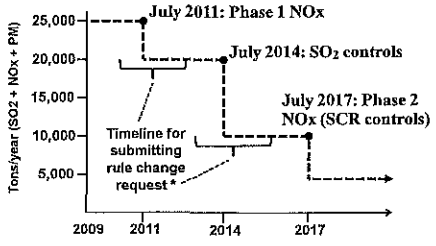
Timeline for Boardman Controls



* Request well in advance of control installation deadlines

41

In Summary

1. PGE Boardman – most single significant stationary source of haze pollution in OR. Multi-state impacts. Peak impact at 9x significance threshold.
2. DEQ conducted exhaustive 3-year study of appropriate controls for this facility.
3. DEQ carefully reviewed and considered <u>all</u> comments in developing our recommendation.
   - Prepared a detailed summary and point-by-point response to comments.

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HANDOUT

Presentation: Proposed Adoption of DEQ Regional Haze Rulemaking

In Summary

4. Concluded our original proposal provides best overall environmental benefit because:
   - Meets federal requirements for BART
   - Minimizes Boardman's NOx and SO_2 emissions to help make reasonable progress by 2018 Milestone.
   - Helps improve visibility and better protect cultural resources in Columbia Gorge.
5. Provides PGE Boardman with alternative to address future carbon regulations.

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Recommended action

Recommend adoption of:

1. Regional Haze Rules (A-1) for PGE Boardman.
2. Oregon Smoke Management Plan (A-2) as revised by OR Dept. of Forestry in 2007.
3. 2008 Oregon Regional Haze Plan (A-3).
4. Proposed changes to Mercury Rules (A-4).

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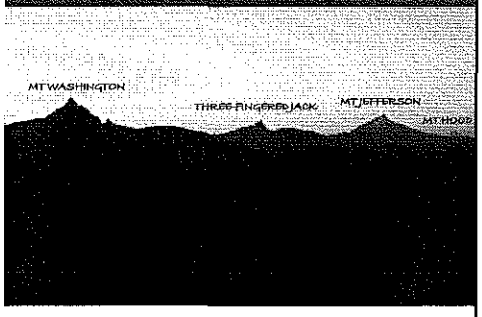
End



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State of Oregon
Department of Environmental Quality Memorandum

Date: May 22, 2009

To: Environmental Quality Commission

From: Dick Pedersen, Director

Subject: Agenda Item K, Informational Item: 2009 Budget and Legislative Agenda Update
June 18-19, 2009 EQC Meeting

Purpose of Item

The purpose of this agenda item is to provide an update to the Environmental Quality Commission on the status of the Department of Environmental Quality's 2009-11 Governor's Request Budget. This presentation includes updates on agency bills and other bills affecting DEQ, and key budget development issues for 2007-09 and 2009-11.

Background

DEQ staff presented an update on DEQ's budget policy packages and legislation for the 2009 legislative agenda at the April EQC meeting. Also at that meeting, DEQ provided an update regarding the recently completed Ways and Means budget hearings for DEQ and on key legislation affecting DEQ.

2009 Legislative Session

The 2009 Legislative Session started on January 12, 2009. On May 15, the latest General Fund and Lottery Fund revenue forecast was released. This forecast is the basis for setting state agency budgets and other state funding requirements. Completing the state agency budgets will be the key factor in determining whether this Legislative Session will end by the anticipated date of June 30.

EQC Involvement

DEQ plans to bring updates on the status of the 2009 bills and budget request to each EQC meeting during the 2009 Legislative Session.

Approved:

Section:

Report Prepared By: Gregory K. Aldrich
Phone: (503) 229-6345

K

DEQ's 2009-11 Legislative Agenda
June 19, 2009 EQC Talking Points

Brief Presentation Outline

- Purpose:
  - Legislative Agenda Timeline
  - 2009-11 Budget Status
    - GF Reduction Options
    - Ways and Means Update
  - Status of Legislation

Legislative Agenda Timeline Update:

- Review timeline -
  - January 12 - 2009 Legislative Session began
  - April 8 – Start of DEQ Ways and Means Presentations
  - April 15 – DEQ Public Testimony at Ways and Means
  - April 17 – Release of Ways and Means Co-Chairs Budget
  - May 15 Revenue Forecast
  - May 29 and June 5 – DEQ Budget Work Sessions
  - June 18 – DEQ Budget passed the Senate Floor
  - June ? – DEQ Budget goes to House Floor
  - June 30 - Sine Die?

2009-11 Budget Status
(2-color handout)

Quick Overview of Budget (top of handout):

- 2007-09 Legislative Approved Budget
  - True impact is now $8.3M less; no change from legislative actions in March

- 2009-11 Ways and Means Recommended Budget:
  - Full budget: $298M vs. $407M
  - Operating budget: $194M vs. $212M
  - FTE: 797 vs. 790

- Review of Approved Policy Packages
  - 1 GF Packages
  - 1 FF Package
  - 9 OF Packages (fees or revenue transfers)

Reduction Options for 2009-11:
(factsheet and large spreadsheet)

10 Percent Reduction Options:

- Governor is required to submit two budgets to the Legislature
  - Standard, balanced budget
  - Balanced budget at 90% funding levels
- 10% Reduction Options represent "budgetary reductions" offered by each agency.
- Reduction Options must be developed for all fund types – GF, LF, FF, OF
- Focus is on the GF reduction options, as these funds are readily transferable to other programs and agencies.
- LF are also transferable, but have more limitations on how funds can be spent
- FF and OF tend to be restricted to specific programs or activities, thus are not typically transferable

- Review of Reduction Options Taken in GRB ($3.1M)
  - Only GF was taken
  - Took everything but the Groundwater Program
  - Also took extra $300,000 from the Diesel Grant Funds
  - Restored one LF position for the TMDL program

30% Reduction Options:

- LFO originally asked for 20% reduction options by December 1, 2008;
- Co-Chairs asked for 30% in February as funding gap grew
- Original budget asked for 10%; GRB took **$3.1 M** out of $**4.3 M** of GF
- DEQ provided first 10% and offered up to 30%; total of **$12.4 M** of GF
- DEQ offered **$1.7 M** in LF; none was taken in GRB

Ways and Means Reduction Options:

- **$6.5M** in GF taken; 13% reduction and 18.4 FTE
- No LF reductions were taken
- Details on spreadsheet

And More:

- Up to 24 furlough days ~ 4.5% pay reduction (impact not included) – details are under discussion
- Rollback of top salary step implemented 7/1/08 for managers and discussion of rollback of new top salary step (scheduled 6/30/09) for represented staff.
- Freeze merit (annual salary step) increases.

Status of Legislation:
(2-color handout)

See 2-color handout for agency bills

Other bills:

- SB 38 - Greenhouse Gas reporting changes
- SB 274 – Contested cases
- SB 631 - Phosphorous in cleaning agents
- HB 2080 – Gray water
- HB 2213 – Adding DEQ to Oregon Invasive Species Council
- HB 2625 – Boarding ships for ballast water inspections
- HB 2714 – Continuing the Ballast Water Task Force
- HB 2564 – VIP hours of operation
- HB 3037 – Paint product stewardship pilot
- HB 3369 – Integrated water resources strategy bill
- HB 3500 – OR Emergency Jobs Program

Next Steps:

Next EQC meeting – August 2009

- Post 2009 Session Updates
  - Review of approved bills
  - Status of budget
- Implementation of 2009-11 Budget

Questions?

DEQ

State of Oregon Department of Environmental Quality

2009 Legislative Proposals and 2009 – 2011 Ways & Means Recommended Budget

2009-2011 WAYS & MEANS RECOMMENDED BUDGET

	2005-07 Actuals	2007-09 LAB	2009-11 Gov Rec	2009-11 Ways & Means Rec
General Fund (includes debt service)	23,091,569	37,856,722	38,511,854	34,048,257
Lottery Funds	3,779,400	5,019,593	6,056,344	5,556,344
Other Funds	108,485,888	125,205,587	145,399,205	141,740,980
Federal Funds	35,360,617	30,656,615	31,199,678	36,557,899
Other Funds (Non-limited)	132,621,178	99,261,427	124,595,548	189,073,148
Federal Funds (Non-limited)	0	0	0	0
Total funds	303,358,617	297,999,944	345,762,629	406,976,628
Positions	804	826	838	814
Full-Time Equivalent	773.89	797.31	807.28	790.13

2009 LEGISLATIVE PROPOSALS

Bill #	Title/Purpose
SB 80	**Establishes a cap-and-trade program to reduce greenhouse gas emissions.** Includes a process for program development and deadlines for rules, legislative reporting and approval. Expands greenhouse gas reporting and sets fees to cover administration costs.
SB 102	**Requires statewide removal of old, high polluting and uncertified wood stoves when a home sells.** Allows the Environmental Quality Commission to set standards for new woodstoves and other wood burning devices. Clarifies that trash, garbage and other prohibited materials may not be burned in the home.
SB 103	**Establishes a less costly alternative to traditional air permits for small businesses to comply with new air quality permitting regulations.** Establishes a registration fee to pay for program implementation.
SB 104	**Technical correction to 2007 legislation that provides for Consumer Price Index (CPI) increases to Title V fees as originally intended.** Removes the every two years requirement for establishing fee schedules and clarifies the CPI calendar year period.
SB 105	**Increases maximum penalty amounts for noncompliance with pollution control laws.** Many maximum penalties limits have not been increased since 1973.
SB 5505	**State bonding bill**
SB 5521	**DEQ budget bill**
HB2183	**Phases out field burning in the Willamette Valley by 2011.** Allows emergency burning in extreme hardship; increases fees; gives the Environmental Quality Commission authority to restrict field burning in counties outside of Willamette Valley if needed to implement the Clean Air Act, improves smoke management coordination.
HB 2184	**Revises Oregon's beverage container return law, based on recommendations of the Bottle Bill Task Force established by the 2007 Legislature.** Increases deposit to 10 cents in 2011; adds container types in 2013; and establishes a return rate goal in 2015.
HB 2185	**New fee table for 401 Water Quality Certifications for removal/fill projects.** Removes existing statutory exemptions for types of removal/fill projects that require a 401 certification and fee, and adds a new fee table.
HB 2186	**Authorizes the Environmental Quality Commission to adopt targeted strategies to reduce greenhouse gas emissions from key source sectors when safe, cost-effective alternatives are available.** Priority sectors are transportation fuels (establishes a low carbon fuel standard), large engines (reduces idling and retrofits vehicles), and high greenhouse gas emitting commercial products (such as refrigerants). Compliments SB 80 (Cap-and-Trade).

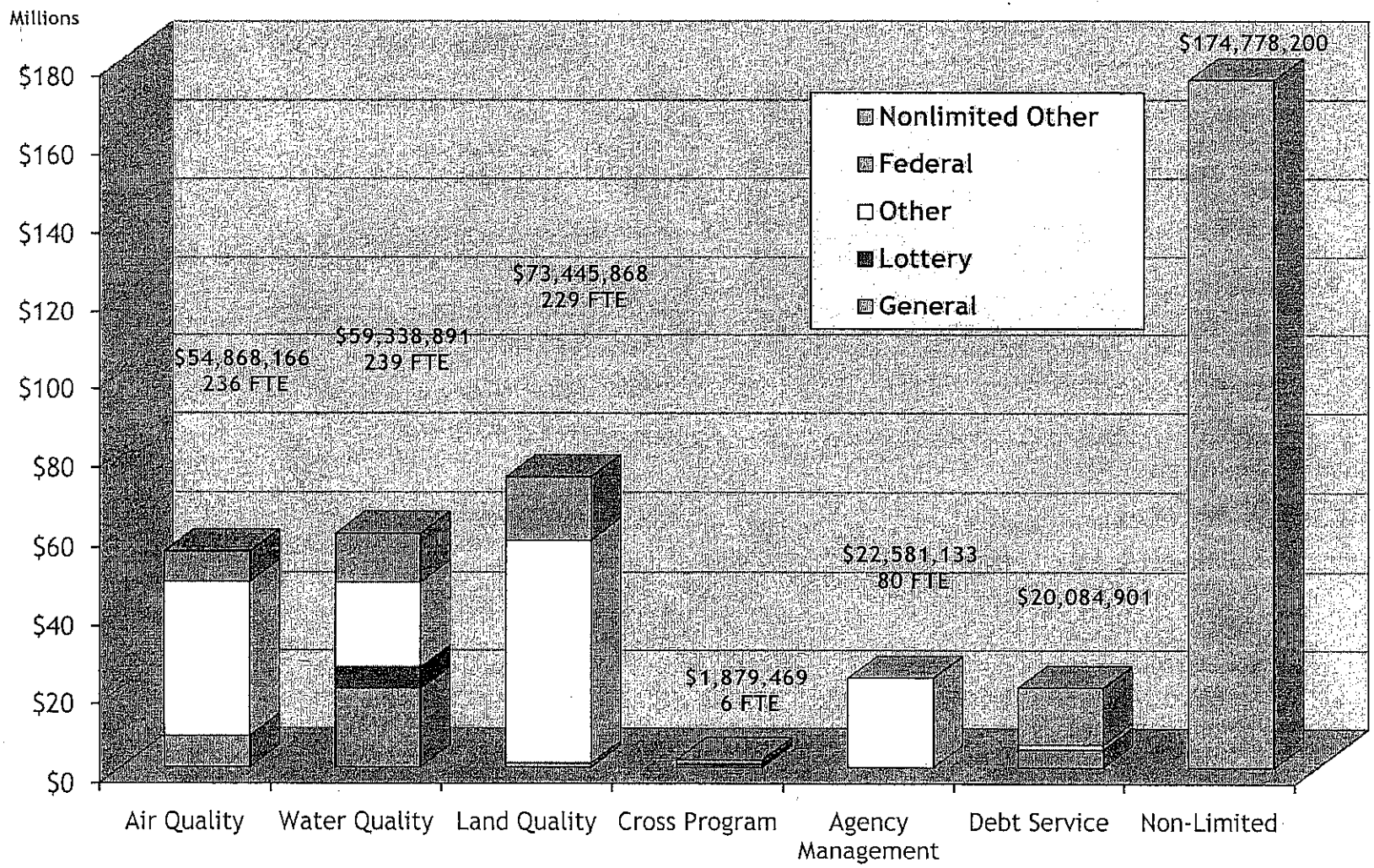
Our mission is to be a leader in restoring, maintaining and enhancing the quality of Oregon's air, water and land.

Oregon Department of Environmental Quality

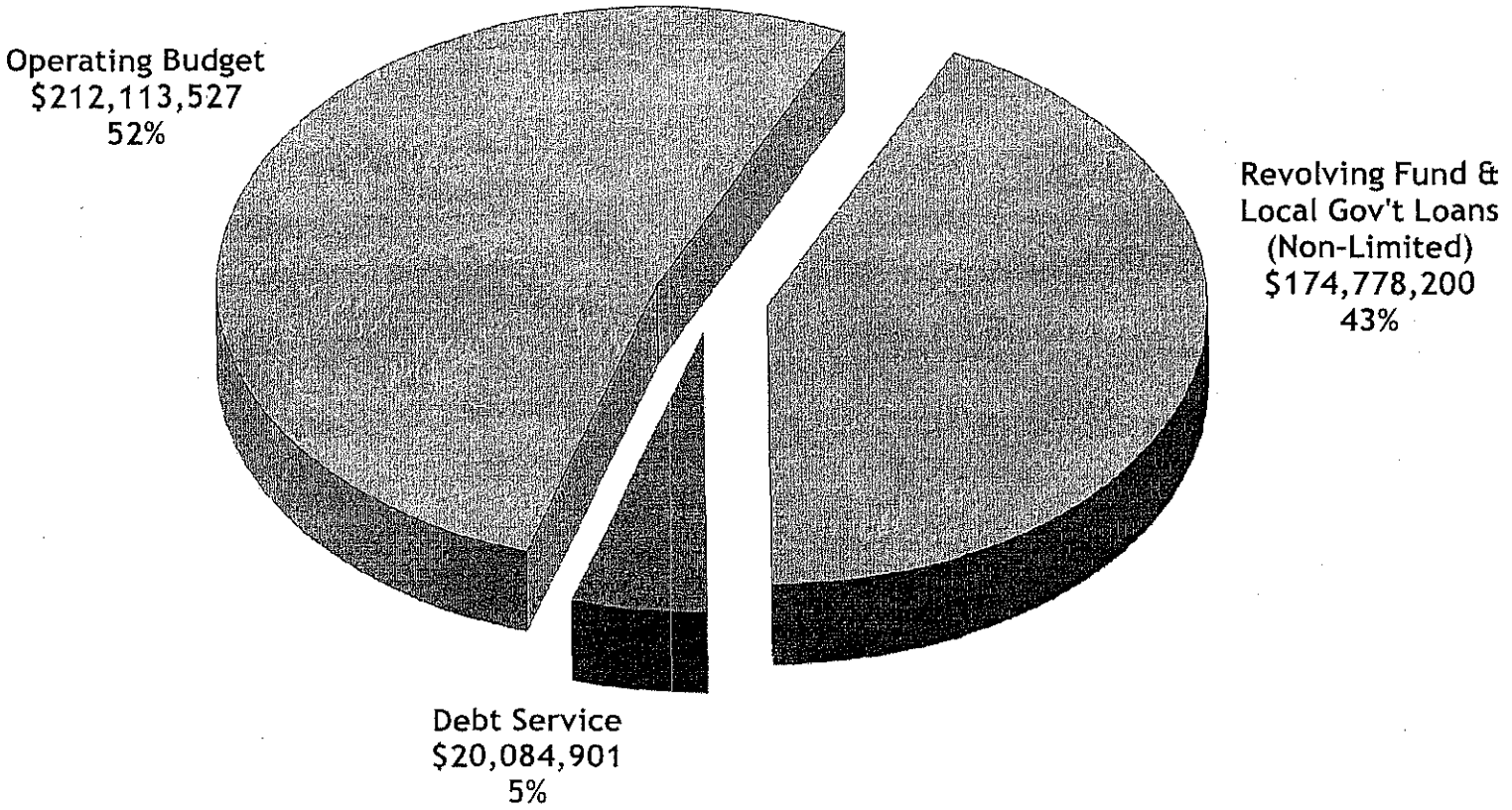
POLICY OPTION PACKAGES

#	Title: Purpose
110	**Climate Change: Greenhouse Gas Reduction.** Provides resources to develop and implement greenhouse gas reporting, a cap-and-trade program and other greenhouse gas reduction measures and incentives. Adds 10 positions (7.75 FTE). **NOT APPROVED**
114	**Implement New Federal Air Toxics Requirements.** Provides resources to work with the approximately 2,600 newly regulated sources that will be required to comply with new federal National Emission Standards for Hazardous air Pollutants. Adds 9 positions (6 FTE). **Funding: $872,297 OF**
116	**Clean Air Transportation Collaborative.** Provides funding for DEQ and Lane Regional Air Protection Agency to evaluate air quality issues and plan construction, public highways, roads and streets to avoid or minimize air quality impacts. Adds 4 positions (3 FTE). **NOT APPROVED**
117	**Field Burning and Smoke Management.** Provides resources to implement HB 2183, including field burning rule development. Allows DEQ to recommend improvements to interagency coordination of smoke management programs. Adds 1 position (1 FTE). **NOT APPROVED**
119	**Complete Title V Staffing Phase-in.** Restores a regional engineering position, as agreed to in the 2007 fee increase negotiations, to allow permitting work to continue in a timely manner and to assure that facilities comply with permit requirements. Restores 1 position (1 FTE). **Funding: $177,432 OF**
121	**Ongoing Implementation of SB 737: Priority Persistent Pollutants.** Continues 2 positions (0.75 FTE) through June 2010 that are funded by a 2-year surcharge. **Funding: $182,917 OF, $210,199 GF**
123	**Drinking Water Protection.** Continues 6 federally-funded positions (5.5 FTE) to implement drinking water protection strategies. **Funding: $1,084,733 OF**
124	**Clean Water State Revolving Fund**: Adds 4 permanent positions (4 FTE) and restores 1.0 FTE to help municipalities with infrastructure needs and conduct EPA-required work for the program. **Funding: $861,922 OF**
126	**Coastal Beach Bacteria Monitoring:** Continues 2 federally-funded positions (1.25 FTE) to monitor bacteria levels at Oregon's beaches. **Funding: $216,197 OF**
127	**Water Quality 401 Project Certification:** Supports timely water quality review and technical assistance for removal/fill projects in rivers, lakes, streams and wetlands. Adds 1.5 FTE and restores 1.4 FTE (4 positions) on fees. **NOT APPROVED**
132	**Product Stewardship for Waste Products.** Provides two positions to help DEQ develop product stewardship policy and to work with stakeholders to draft framework legislation for the 2011 session. 2 positions (1.84 FTE). **Funding: $277,890 OF**
140	**Information Management Infrastructure.** Adds an information services position (1 FTE) to help DEQ maintain current information systems and keep up with constantly evolving technologies. **NOT APPROVED**
150	**Environmental Information Exchange Network.** Made permanent 3 federally funded positions (3 FTE) for the National Environmental Information Exchange Network. **Funding: $564,895 FF**
162	**Water Quality Review for ASR Projects.** Allows DEQ to ensure that aquifer storage and recovery and aquifer recharge projects improve water quality and work with WRD to develop a comprehensive water supply and quality strategic plan for Oregon. Add 2 positions (2 FTE). **NOT APPROVED**
166	**Restore Onsite Septic System Program.** Restores 2.5 positions (2.5 FTE) responsible for technical work necessary to process applications in the 2009-11 biennium. **Funding: $ 522,035 OF**
181/191	**Clean Water SRF: Bond Debt Service & Loans and Bonds.** Reauthorize bonds to leverage up to $45 million in federal funds to provide low-interest loans for community clean water projects, including wastewater treatments systems.

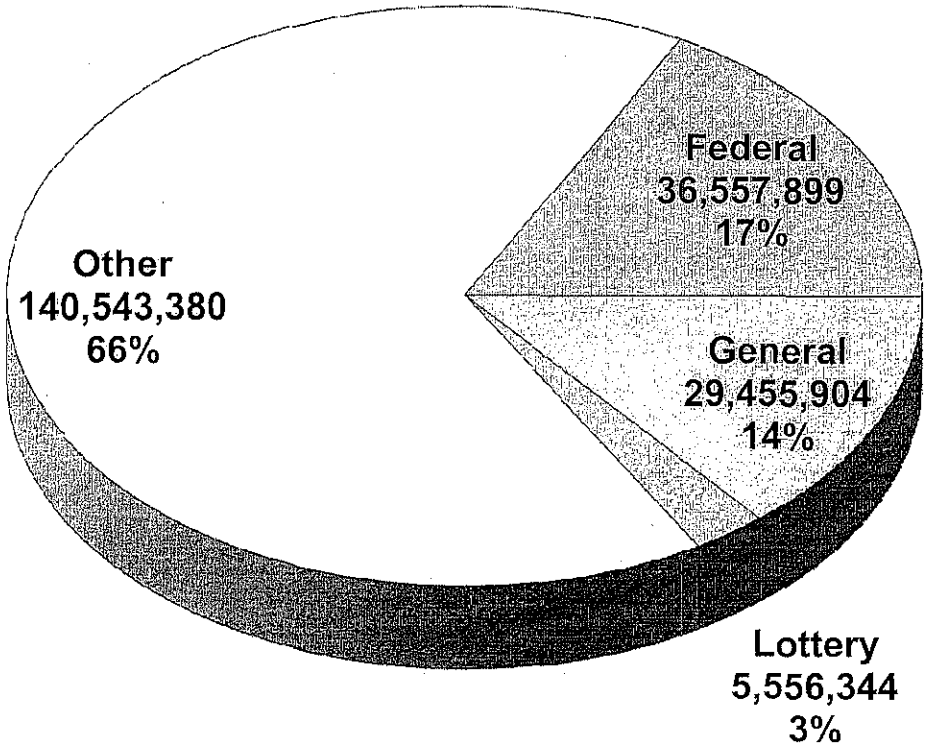
2009-2011 Initial LAB Budget, By Program
$406,976,628



2009-2011 Total Initial LAB Budget
$406,976,628 790.12 FTE



2009-2011 Initial LAB Budget
Operating Budget - $212,113,527



Fact Sheet

2009-11 Ways & Means Approved Budget

Background

The following budget information reflects DEQ's initial 2009-11 budget as approved by the Joint Ways & Means Committee on June 5, 2009. The Legislature approves the final budget.

DEQ Ways & Means Co-Chairs Budget

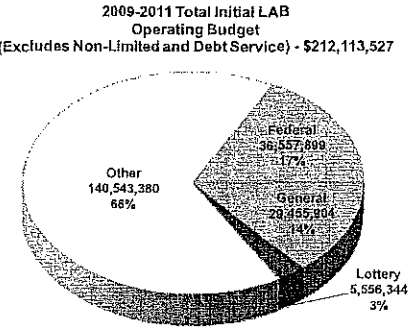
DEQ's initially approved budget for 2009-11 is approximately $407 million, of which $195 million, or 48 percent, is comprised of funding for loans to Oregon communities for clean water projects and debt service on bonds. The substantial growth in new funding for these loans from the Federal Stimulus package, coupled with increased demand from communities is welcome since these projects improve the quality of Oregon's water and have a positive impact on local jobs and the Oregon economy.

The substantial increase in loans is directly responsible for an increase of 20 percent in DEQ's *total* budget relative to the 2007-09 biennium, but these loan funds are pass-through funds only and cannot be used to provide any of DEQ's other environmental services. DEQ's operating budget for its core services consists of the remaining $212 million.

For DEQ's ongoing operations, the initial budget approves:

- $29.5 million in general fund, a 13 percent reduction and 18.4 fewer full-time positions compared to DEQ's 2007-09 Legislatively Approved Budget.
- $5.5 million in Lottery Funds, maintaining the same level of services as 2007-09.
- $36.6 million federal funds, a $6 million increase driven mainly by federal stimulus money for leaking underground storage tank cleanups ($2.7 million) and diesel upgrade grants ($1.7 million), as well as a grant for maintaining the McCormick and Baxter cleanup site ($1.3 million). Most of the increase will be used directly in Oregon communities rather than funding DEQ services.
- $140.5 million in other funds, mostly from fees. The increase is driven by a $5.3 million increase in E-waste recycling budget to fund a contractor recycling program.

In the initial 2009-11 operating budget, general funds make up 14 percent of the budget, lottery funds contribute 3 percent, federal funds provide 17 percent, and fees and other revenues provide the majority – 66 percent.



The budget funds 790 staff (full time equivalents, or FTE), a net decrease of 7.18 staff from 2007-09 levels. While general fund reductions reduced 18.4 positions, the budget also approved 10.34 new postions for continuing and new work.

Air Quality Program budget

The Air Quality Program's $54.9 million budget includes a general fund reduction of $2.1 million, or 20.9 percent. The budget also includes $2.5 million in additional fee funding and a $1.1 million increase in federal funding from a one-time federal stimulus grant. The budget supports 236.27 full-time employees, compared to 230.44 for 2007-09.

Reductions. Air quality had a general fund reduction of $2.1 million which resulted in the following effect on program activities:

- Reduced Clean Diesel grants ($1 million) and staffing for diesel reduction outreach and grant administration (2 FTE).
- Reduced air quality technical assistance to small businesses (0.5 FTE).
- Eliminated one air toxics monitoring site in Medford (1 FTE).
- Reduced enforcement work on open burning violations (0.5 FTE).
- Reduced general fund support for Lane Regional Air Protection Agency ($74 K).

State of Oregon
Department of Environmental Quality

Office of the Director
811 SW 6th Avenue
Portland, OR 97204
Phone: (503) 229-5696
(800) 452-4011
Fax: (503) 229-6762
www.oregon.gov/DEQ

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

Contacts:

Dick Pedersen
Director
(503) 229-5300

Greg Aldrich
Government Relations Manager
(503) 229-6345

Last Updated: 06/09/09
By: M.Aerne
DEQ 09-MSD-005

- Eliminated support for multi-state air quality modeling center, which provides technical data for air pollution reduction work. ($206 K)

Highlights. Even though the Air Quality Program had general fund reductions, the program received authority for the following new and continuing work:

- Permitting, enforcement and technical assistance for new sources subject to recently adopted federal regulation for hazardous air pollutants.
- Develop and implement a new greenhouse gas reporting program for Oregon, supported by fees on program participants.
- Restore an engineering position for Title V permitting and compliance work. No new fees.
- Restore a diesel grant administration position and some of the diesel grants using one-time federal stimulus funding.

Water Quality Program budget

The Water Quality Program's $59.3 million budget includes $19.8 million in general fund, a 4.6 percent decrease from 2007-09. The budget also includes $5.6 million in lottery funds, $12.3 million in federal funds, and $21.7 million in fees. The budget funds 239 full-time employees, compared to 241.45 for 2007-09.

Reductions. A $1.7million general fund reduction, eliminating 8 FTE from the program, will affect water quality activities as follows:

- Eliminated the Oregon Plan biomonitoring program (4 FTE).
- Reduced communications and outreach (1 FTE).
- Reduced program support (1 FTE).
- Reduced stormwater program (2 FTE).

Highlights. Although the program had general fund reductions, DEQ also received authority for the following new and continuing work:

- Support ongoing implementation of Senate Bill 737, including providing technical assistance to municipal wastewater treatment plants that need to develop toxic reduction plans, developing guidance documents, reviewing the persistent pollutant plans submitting and incorporating those plans into permits.
- Assist municipalities on water and wastewater infrastructure and opportunities for reducing their carbon footprints; conduct work associated with the required EPA Clean Watersheds Needs Survey; and conduct additional outreach and marketing for the program, which EPA has requested.
- Restore 2.5 positions in the Onsite Septic System Program that are unaffordable in the 2009-11 biennium.
- Continue federal funds to protect drinking water in Oregon.
- Continue federal funds to monitor bacteria levels at Oregon's coastal beaches.

Land Quality Program budget

The Land Quality Program's $73.4 million budget includes a general fund reduction of $1.4 million, a 56 percent decrease, from 2007-09. The budget also includes $56.7 million in other funds and $15.6 million in federal funds. The budget funds 229.13 FTE, just short of the 229.94 FTE approved for 2007-09.

Reductions. The Land Quality Program had a $1.4 million general fund reduction, which affects program activities as follows:

- Reduced hazardous waste compliance inspections (1 FTE).
- Reduced hazardous waste program management (1 FTE).
- Reduced hazardous waste technical assistance (1FTE). The program saved additional general funds by shifting FTE to other funding sources, making program work, primarily in the hazardous waste program, more reliant on fee funding.

In addition, $957,000 of orphan site cleanup program funds will be used to pay a portion of general fund debt service, reducing the amount available to clean up contaminated sites.

Highlights. The budget authorizes development of product stewardship policies and programs, funded with existing fees.

Cross Program

Cross program is not a program, but a budget structure for funding activities crossing more than one media (air, land or water).

Reductions. The Cross Media Program's general fund budget was reduced by $169,000, which affects program activities as follows:

- Reduced Economic Revitalization Team support of Oregon communities (.60 FTE). The FTE will be redirected to environmental work in other DEQ programs.

Highlights. DEQ received continued federal funding for positions working on the National Environmental Exchange Network.

Agency Management

Reductions. The Agency Management Program is funded by a surcharge on the air, water and

land quality budgets. Due program budget reductions, the Agency Management Program's budget is reduced by $1 million and 5.5 FTE. The reductions affected activities as follows:

- Eliminated senior policy support for high priority environmental issues (1 FTE).
- Eliminated policy support for performance measure coordination (1 FTE).
- Eliminated support for Communication and Outreach and Human Resources (1.5 FTE).
- Eliminated grant coordination (1 FTE).
- Eliminated an Accounting position (1 FTE).

Alternative formats

Alternative formats (Braille, large type) of this document can be made available. Contact DEQ's Office of Communications & Outreach, Portland, at (503) 229-5696, or toll-free in Oregon at 1-800-452-4011, ext. 5696.

30% General Fund Reduction Options - Annotated for Co-Chairs Budget 05/18/09

Oregon Department of Environmental Quality

2009 - 2011 Biennium — **Agency Number: 34000**

Options without shading were recommended by the Ways & Means Co-Chairs budget for reduction/elimination from DEQ's budget. **Shaded options will remain in the DEQ budget.**

Detail of 30% Reduction to 2009-11 Essential Budget Level

1	2	3	4	5	6	7	8	9	10	11	12	13	14	16	
Priority (ranked with lowest priority first)		**Dept. Initials**	**Prgm. or Activity Initials**	**Program Unit/Activity Description**	**GF**	**LF**	**OF**	**NL-OF**	**FF**	**NL-FF**	**TOTAL FUNDS**	**Pos.**	**FTE**	**Impact of Reduction on Services and Outcomes**	
Dept	**Prgm/ Div**														
1	1	DEQ	AQ	LRAPA 2007-09 Partial Implementation Reduction Included as Part of GRB	73,690						$ 73,690	0	0.00	LRAPA would reduce sampling frequency of its only air toxics monitor, putting the data reliability for trend analysis in question. LRAPA would also reduce compliance work and complaint response related to open burning and residential wood heating in the Eugene-Springfield area where PM 2.5 concentrations are close to exceeding the federal standard.	
2	2	DEQ	AQ	Diesel Grant Funds 2007-09 Partial Implementation Reduction Included as Part of GRB	606,045						$ 606,045	0	0.00	Diesel particulate matter ranks in the top three air toxics of concern in Oregon. Cutting 60% of the General Fund grant funding would deminish the public health benefit from diesel emission reduction grants.	
3	3	DEQ	AQ	AQ Local Government Outreach Reduction Included as Part of GRB	41,450						$ 41,450	0	0.00	Reduces funding for local government fine particulate reduction outreach. DEQ support for these former non-attainment areas is a federal requirement of the State Implementation Plan (SIP). Work includes: daily air quality advisories, voluntary woodstove curtailment programs and conducting wood smoke public education activities to reduce emissions. May result in higher fine particulate emissions or in some communities violation of the federal standard.	
4	4	DEQ	AQ	AQ Reduce Small Business Assistance 2007-09 Partial Implementation Reduction Included as Part of GRB	132,000						$ 132,000	0	0.50	Reduces most of the technical assistance to small, non-permitted businesses that are not required to comply with the federal Clean Air Act. With only .25 FTE state-wide remaining after this cut, it would lead to more pollution in the environment and a higher health risk to the public.	
5	1	DEQ	WQ	Eliminate Oregon Plan Biomonitoring 2007-09 Partial Implementation Reduction Included as Part of GRB	860,888						$ 860,888	4	4.00	DEQ would no longer be able to meet monitoring commitments to the Oregon Plan as part of the Coastal Coho Recovery Plan. This work includes: • Coordination with and training ODFW crews on the collection of temperature data at 21 locations and macroinvertrbrate samples at 160 locations along the coast. • Processing, analyzing and reporting on the information associated with the data collection in the 21 coastal coho population units. • Supporting the collection, analysis and reporting of additional ambient sites on the Oregon coast. • Providing technical assistance to other agencies on related programs that collect water quality and biological data to determine the effectiveness of management activities. • Facilitating macroinvertebrate data processing and analysis from watershed councils. • Participating in the Oregon Plan Core team or Monitoring team meetings.	1st 5%
6	1	DEQ	LQ	Reduce HW Compliance Inspections 2007-09 Partial Implementation Reduction Included as Part of GRB	264,122						$ 264,122	1	1.00	Reduce HW inspection staff by 1 FTE, or approximately 10%. This would result in: • approximately 26 fewer inspections of regulated generators per year (8 Large Quantity and 18 Small Quantity) and • a reduced ability to respond to complaints (about 10 – 20 fewer complaint inspections)	

30% General Fund Reduction Options - Annotated for Co-Chairs Budget 05/18/09

Oregon Department of Environmental Quality

2009 - 2011 Biennium **Agency Number: 34000**

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Detail of 30% Reduction to 2009-11 Essential Budget Level

1	2	3	4	5	6	7	8	9	10	11	12	13	14	16	
Priority (ranked with lowest priority first)		**Dept. Initials**	**Prgm. or Activity Initials**	**Program Unit/Activity Description**	**GF**	**LF**	**OF**	**NL-OF**	**FF**	**NL-FF**	**TOTAL FUNDS**	**Pos.**	**FTE**	**Impact of Reduction on Services and Outcomes**	
7	5	DEQ	AQ	Reduce Ozone, Fine Particulate Monitoring Reduction Included as Part of GRB	308,000						$ 308,000	2	1.50	Eliminates new ozone and fine particulate monitoring provided in the 2007-2009 budget. Lost monitors include: All Eastern Oregon ozone monitors at a time when EPA has tightened the standard. Fine particulate monitors in Madras, Redmond, McMinnville and a background site near Klamath Falls. All sites (except the background site) are at risk of exceeding the standard and are likely above the health level of concern. Loosing the background site for Klamath Falls will make develoment of an implementation strategy for this non-attainment area more difficult.	
8	6	DEQ	AQ	Reduce Fine Particulate Planning Reduction Included as Part of GRB	182,000						$ 182,000	1	1.00	Eliminates an Air Quality Planner developing and coordinating fine particulate and ozone reduction strategies and carrying out mandatory CAA requirements for new federal standards. Delays work to develop an air quality plan for returning Klamath Fall's air to healthy levels. Extended violation of the fine particulate standard negatively impacts public health and economic development in the area. Postpones pollution prevention outreach and strategy development in Oregon communities at risk of violating federal standards and slows the implementation of CAA requirements mandated by new standards.	
10	7	DEQ	AQ	Reduce Clean Diesel Outreach 2007-09 Partial Implementation Reduction Included as Part of GRB	458,000						$ 458,000	2	2.00	Reduce clean diesel outreach work aimed at recruiting fleet owners to clean up their diesel engines. Work includes marketing the state's tax credit program, coordinating entities to take advantage of state and federal grant programs, promoting idle reduction strategies and participating in the development of a regulatory program. Diesel particulate matter ranks in the top three air toxics of concern in Oregon. Loss of staff would most likely reduce Oregon's success in obtaining and administering grants.	2nd 5%
11	8	DEQ	AQ	Eliminate 1 Air Toxic Monitoring Site Reduction Included as Part of GRB	218,000						$ 218,000	1	1.00	Eliminate a Medford air toxics monitoring site. Loss of this background site will make interpretation of air toxics data from the population orientated site in Medford more difficult. Long term, DEQ would move this site to other communities with air toxic levels modeled to be above the health benchmarks.	
12	9	DEQ	AQ	Eliminate Support for Regional Air Quality Modeling Center	205,660						$ 205,660	0	0.00	Reduces the availability of tecnical data needed to reduce fine particulate. NW AirQuest is a technical collaborative with WA and ID to produce meteorological and dispersion modeling used for burn bans and air quality plan development. Replacing this information on our own later for PM2.5 and ozone plans would cost more.	
13	10	DEQ	AQ	Eliminate General Fund Diesel Grants	421,995						$ 421,995	0	0.00	Eliminating all remaining GF grant funding will prevent diesel engine retrofits and repowers that dramatically reduce diesel particulate emissions and public health risks. This funding was match for DERA grants and other competitive federal grants, so federal funds will be lost as well.	
14	4	DEQ	LQ	Hazardous Waste Policy Devopment & Interpretation (LQ)	257,396		(218,164)				$ 39,232	0	0.00	Shift .90 of a policy position to fee funding. This will enable the program to continue haz. waste policy development and interpretation during 09-11, when there are several policy issues to be addressed. It will, however, limit funds available to fund the program in 2011-13.	

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Detail of 30% Reduction to 2009-11 Essential Budget Level

1	2	3	4	5	6	7	8	9	10	11	12	13	14	16	
Priority (ranked with lowest priority first)		**Dept. Initials**	**Prgm. or Activity Initials**	**Program Unit/Activity Description**	**GF**	**LF**	**OF**	**NL-OF**	**FF**	**NL-FF**	**TOTAL FUNDS**	**Pos.**	**FTE**	**Impact of Reduction on Services and Outcomes**	
15	5	DEQ	LQ	Hazardous Waste Program Management	298,247						$ 298,247	1	1.00	Eliminate one manager position.	
16	6	DEQ	LQ	Shift additional Hazardous Waste FTE to fees	240,917		(200,764)				$ 40,153	0	0.00	Shift an additional 1.13 FTE of hazardous waste program FTE to Other Funds, funded with available fee balances. This would enable the program to continue the work of these positions through 09-11. Continued affordability will be evaluated as part of 11-13 budget development.	
17	1	DEQ	XP	Shift Part of Economic Revitalization Team (ERT) to alternate funding	168,995		(154,629)				$ 14,366	0	0.00	Shifts ERT funding for 0.6 FTE from the General Fund over to fee funding	
18		DEQ	AQ	Air Quality Enforcement	120,612		(8,665)				$ 111,947	1	0.50	Loss of Enforcement staff will eliminate DEQ's abiliity to take enforcement on open burning violations discovered through complaint response, and less enforcement of hazardous waste violations, including improper disposal. Loss of this resource mens there will be reduced compliance with legal requirements, less civil penalty money contributed to the GF and fewer Supplemental Environmental Projects funded by violators.	
			WQ	WQ Enforcement			18,740				$ 18,740	1	0.00		
			LQ	Hazardous Waste Enforcement	121,018		(22,024)				$ 98,994	0	0.50		
19	2	DEQ	WQ	Communications and Outreach	223,014						$ 223,014	1	1.00	DEQ would reduce communications and outreach support for the agency. This means: • Reduced ability to produce informational materials such as news releases and fact sheets on local environmental issues. • Reduced support and expertise for public meetings and public outreach efforts regarding permitting in communities. • Reduced ability to work directly with local communities and local governments in public education campaigns to reduce non-point source pollution. • Reduced ability to cover and communicate local environmental enforcement actions. • Reduced ability to educate and communicate with the public about toxics in the environment and climate change issues.	3rd 5%
20	7	DEQ	LQ	Orphan Site Cleanups (LQ)	102,000						$ 102,000	0	0.00	This option would use proceeds from the 2008 orphan site bond sale to pay General Fund debt service, instead of for cleaning up sites. Identified orphan spending needs for 2009-11 already exceed available revenues, and there is no reserve for emergencies and as-yet-unidentified high priority sites. This reduction would worsen the budget shortfall.	
21	8	DEQ	LQ	Hazardous Waste TA (LQ)	256,968						$ 256,968	1	1.00	Reduce HW technical assistance staff by 1 FTE. This would result in: • 56 fewer technical site visits a biennium and • a reduction in statewide training sessions. Site visits and training sessions help predominately small businesses reduce the use of toxics, comply with complex regulations, and improve overall environmental performance.	
22	3	DEQ	WQ	Water Quality Program Support	149,284						$ 149,284	1	1.00	Reduces administrative support for the water quality program. This work includes filing, copying, mailing, scheduling and database work. This means that existing staff will have less administative support and may not be able to fully focus on technical work.	
23	9	DEQ	LQ	Hazardous Waste Data Management & Development	256,968						$ 256,968	1	1.00	This would eliminate the position responsible for the HW program's data systems development and improvement. It would severely impact the program's ability to: • collect and analyze generator and waste data necessary to evaluate program progress; • identify improvements; • respond to EPA's requests for information; and • fix database problems, compromising data quality. To cover minimum data management functions, we would need to reduce resources devoted to program improvements, policy development, and related activities.	

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Detail of 30% Reduction to 2009-11 Essential Budget Level

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Priority (ranked with lowest priority first)		**Dept. Initials**	**Prgm. or Activity Initials**	**Program Unit/Activity Description**	**GF**	**LF**	**OF**	**NL-OF**	**FF**	**NL-FF**	**TOTAL FUNDS**	**Pos.**	**FTE**	**Impact of Reduction on Services and Outcomes**	
24	4	DEQ	WQ	Wastewater Permitting (WQ)	500,000						$ 500,000	3	2.75	DEQ would not be able to meet the commitments made for the Stormwater program. Specifically, DEQ would: • Reduce inspections in the stormwater program by 50 percent • Reduce permit issuance. This means that all stormwater permit issuance will be delayed. • Eliminate work to develop approaches for eliminating dual regulation (DEQ and municipalities) of stormwater from construction sites • Delay issuing the 1200C general permit (for construction activities). The permit expires December 31st, 2010.	
					485,426						$ 485,426	3	2.75		
25	10	DEQ	LQ	Orphan Site Cleanups - Hazardous Substance Possession Fee	300,000						$ 300,000	0	0.00	Use Hazardous Substance Possession Fee fund balance in excess of amount required for the fund's share of orphan debt service to pay for a portion of GF debt service. These funds would otherwise have been spent to support orphan cleanup work. Instead, DEQ will use other fund sources to subsidize administrative and overhead (e.g., rent) costs of the orphan program.	4th 5%
26	11	DEQ	LQ	Orphan Site Cleanups (LQ)	555,000						$ 555,000	0	0.00	This option would use more of the proceeds from the 2008 orphan site bond sale (see Option 20) to pay General Fund debt service, instead of for cleaning up sites. This is the maximum amount of proceeds that can be used for debt service under IRS regulations. Identified orphan spending needs for 2009-11 already exceed available revenues, and there is no reserve for emergencies and as-yet-unidentified high priority sites. This additional reduction would significantly worsen the budget shortfall, jeopardizing public health and investments made to clean up contaminants. At this level, cuts would be made to operations and maintenance (O&M) for already-installed cleanup remedies, federal match obligations and/or investigation and cleanup of highly-contaminated sites where a remedy has not yet been installed.	
27	11	DEQ	AQ	LRAPA	57,895						$ 57,895	0	0.00	Because LRAPA has already received cuts in local dues and general fund, this cut would result in an across the board reduction through a furlough (9 days) or other mechanism. It would reduce the amount of inspections, air monitoring/reporting/forecasting, complaint responses, permits issued, enforcement actions, grant applications, open office hours,	

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Oregon Department of Environmental Quality

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Detail of 30% Reduction to 2009-11 Essential Budget Level

1	2	3	4	5	6	7	8	9	10	11	12	13	14	16	
Priority (ranked with lowest priority first)		**Dept. Initials**	**Prgm. or Activity Initials**	**Program Unit/Activity Description**	**GF**	**LF**	**OF**	**NL-OF**	**FF**	**NL-FF**	**TOTAL FUNDS**	**Pos.**	**FTE**	**Impact of Reduction on Services and Outcomes**	
28	12	DEQ	AQ	State Air Permitting (ACDP)	574,898						$ 574,898	3	2.50	Eliminate most of remaining GF from ACDP, leaving only 1 FTE of non-fee funded FTE in the program. Will delay permit issuance, which negatively impacts businesses expanding or morifying their operations. Will also reduce facility inspections and compliance oversight, eliminate coordinated inspector training and delay or eliminate outreach materials for new sources.	
29	9	DEQ	AQ	Air Toxics Outreach (AQ)	101,961						$ 101,961	1	0.50	Cuts outreach work to reduce benzene and PAH emissions, two of the most significant toxic air pollutants. Reduction efforts target dry cleaners, gas stations and development of community burn ban and woodstove ordinances.	
30	5	DEQ	WQ	WQ Toxics Monitoring Support	694,249						$ 694,249	4	3.59	Reduces support, including a manager, for the Water Quality Toxics Monitoring program. This means: • Development of maps and other visual tools that geographically depict where toxics monitoring was done and the monitoring results will not be available. • The toxics monitoring results will take longer to be uploaded into the public database, thus it will take longer to share the monitoring results. • Remaining staff in the toxics monitoring program will not have administrative support to do copying, filing, mailings, scheduling and database work. • Reduced ability to develop informational materials for the public or conduct public outreach regarding the results of the toxics monitoring results.	5th 5%
31	6	DEQ	WQ	State Water Quality Permitting (WPCF)	482,355						$ 482,355	2	2.00	Reduces inspections, technical assistance and timely permit renewals for permittees that land apply their effluent.	

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32	7	DEQ	WQ	Willamette TMDL Implementation	1,046,224						$ 1,046,224	4	4.00	Reduces implementation work associated with the Willamette TMDL. This work includes: • Providing technical assistance to local communities, watershed councils, local governments, other state agencies, federal agencies, businesses, citizens, and other groups in the Willamette Basin for implementing watershed restoration and pollution control activities • Collecting and analyzing mercury data to ensure DEQ, communities and other stakeholders can better understand how mercury affects the environment and make cost-effective decisions about mercury reduction strategies. This reduction option package includes a manager position.	6th 5%
33	14	DEQ	AQ	Eliminate Second Air Toxic Monitoring site	249,159						$ 249,159	2	1.00	This would cut the air toxics monitor in Salem or a second monitor in Medford. This, together with cuts already taken, would significantly undermine DEQ's air toxics monitoring effort. The monitors in Medford and Salem were added in the 2007 budget in reponse to substantial public interest, and removing the monitors will undercut expectations.	
34	2	DEQ	WQ	Reduce Groundwater Protection Program	891,993						$ 891,993	4	4.00	DEQ would no longer do work associated with any of the Groundwater Management Areas (GWMAs) that are located in the Lower Umatilla Basin, Northern Malheur County, and in the Southern Willamette Valley. The work associated with the GWMAs includes: • Implementation of Groundwater Management Areas where the water quality has been degraded, beneficial uses are seriously impaired, and public health may be at risk in part from nonpoint source groundwater pollution • Technical assistance to communities and watershed councils engaged in groundwater pollution prevention efforts.	
35	15	DEQ	AQ	Air Quality Emission Inventory	214,462						$ 214,462	1	1.00	Delays in air toxics and PM2.5 planning work. Emission inventory is the scientific underpinning of air quality planning, including identification of sources, determining baseline emission levels, evaluating the benefits of proposed emission reduction strategies, and meeting federal technical requirements. With fewer resources, DEQ will have to delay planning efforts to reduce air quality health impacts.	
36	8	DEQ	WQ	Water Quality Enforcement	229,094		15,108				$ 244,202	1	1.00	Reduces enforcement capabilities for water quality violations. This means there will be reduced compliance with legal requirements, less civil penalty money contributed to the General Fund, and fewer Supplemental Environmental Projects funded by violators.	
					12,349,985	-	(570,398)	-	-	-	$ 11,779,587	46	42.09		

Positive numbers are reductions to the 2009-11 budget, negative numbers are limitation increases

Summary	Co-Chairs	Corrected for G18	Corrected for G18	
AQ	2,357,020	2,236,002	4	4.00
WQ	1,733,186	1,733,186	10	8.75
LQ	1,317,650	1,438,668	3	3.50
XP	168,995	168,995	0	0.00
Debt	957,000	957,000	0	0.00
Total	6,533,851	6,533,851	17	16.25

Oregon Department of Environmental Quality

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Detail of 30% Reduction to 2009-11 Essential Budget Level

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Dept	**Prgm/ Div**													
1	1	DEQ	WQ	Reduce TMDL Development		555,598					$ 555,598	2	2.00	DEQ would no longer be able work on the development of the Willamette Basin TMDL that is scheduled to be reviewed in 2011. This means that preliminary monitoring and background work would not begin in 2010. The work includes: • Modeling & TMDL Development • Stakeholder Coordination & Outreach • Recalculation of natural thermal potential, including upstream of dams • Recalculation of waste load allocations for permits
2	2	DEQ	WQ	Reduce TMDL Development		555,598					$ 555,598	2	2.00	DEQ would no longer be able work on the development of the Yamhill and Umpqua Basin TMDLs that are scheduled to be reviewed in 2011. This means that preliminary monitoring and background work would not begin in 2010. The work includes: • Modeling & TMDL Development • Stakeholder Coordination & Outreach • Recalculation of natural thermal potential, including upstream of dams. • Recalculation of waste load applications for permits.
3	3	DEQ	WQ	Reduce TMDL Development and Implementation		555,598					$ 555,598	2	2.00	DEQ would delay work on the Deschutes TMDL, which is scheduled to be reviewed in 2011. Additionally, preliminary monitoring and background work for the South Coast TMDL would not begin as planned.
					-	1,666,794	-	-	-	-	$ 1,666,794	6	6.00	

State of Oregon
Department of Environmental Quality Memorandum

Date: May 22, 2009

To: Environmental Quality Commission

From: Dick Pedersen, Director

Subject: Agenda Item M, Informational Item: Composting Facility Rulemaking
June 18-19, 2009, EQC Meeting

Purpose of Item The purpose of this agenda item is to provide EQC with updated information regarding proposed amendments to solid waste rules governing composting facilities.

Background Composting facilities are operations that process certain organic feedstocks into a finished product called compost. The most commonly used feedstocks for composting are yard debris, wood waste, manure and food waste. Composting can be an efficient method for recycling organic materials that might otherwise be disposed of in a landfill, and, by avoiding anaerobic decomposition, it prevents the release of methane, a significant component of greenhouse gas. The use of compost offers numerous benefits: when incorporated into soil, it can improve soil tilth and fertility; it can provide a more stable form of nitrogen less susceptible to leaching into water supplies; and on heavy soils, compost helps reduce compaction and increases infiltration.

Composting also contributes to achieving the state's solid waste recovery goal of 50 percent by 2009. In 2006, 41 permitted composting facilities in Oregon composted over 591,000 tons of feedstock, which accounted for 15 percent of all solid waste diverted from landfills.

DEQ supports and encourages composting. At the same time, we are aware that, if not conducted in the proper manner or if conducted at an improper location, composting presents potential environmental problems, most notably possible contamination of surface water and groundwater.

DEQ initially proposed amendments to the composting facility rules in January 2008. The solid waste program conducted extensive discussions internally and with interested persons to resolve contentious issues brought up during the public comment period. The rule amendments now proposed provide more streamlined, risk-based permitting and greater

environmental benefits. DEQ believes the proposed rules will ensure protection of public health and the environment while allowing Oregon's composting industry to grow.

Key Issues

- Stakeholder groups have traditionally disagreed about regulation of agricultural composters. Agricultural composters want the ability to use significant amounts of non-farm feedstocks in their operations. Commercial composters believe it would be unfair to continue the existing exemption from DEQ permitting for agricultural composters. The proposed rules resolve this issue by creating a level playing field, allowing all composting facilities to use whatever feedstocks they choose and all facilities will be subject to the same regulatory requirements. The Department of Agriculture will continue to have a significant role, through an agreement with DEQ, in providing oversight of agricultural composting operations.

- The existing composting regulatory system relies on a combination of rules and a prescriptive permit to control operations at composting facilities. The proposed rules address this issue by creating clear environmental performance standards that all composting facilities must meet and by allowing facilities to decide for themselves how they will meet those standards. DEQ will review and approve facility operating plans, but will allow composting operators to select and implement measures that will meet environmental performance goals.

- Under the previous proposal, all composting facilities would have been required to conduct all operations on impermeable surfaces, unless DEQ granted a variance. Many composters, especially smaller operators, believed that requirement was unnecessary and could be financially burdensome. This issue has been addressed by providing an initial environmental risk screening of all new and existing composting facilities. All facilities will be evaluated by DEQ for risks to surface water and groundwater, and for the potential to create offsite odor problems. The screening process will be based on facility size and operational characteristics, and also on site-specific physical characteristics such as the amount of rainfall, distance to surface water, depth to groundwater, distance to residences and other factors.

  The proposed rules create a modified permitting structure to track the risk screening described above. After the risk screening, facilities that DEQ determines are low risk operations will operate under a low cost registration permit. For these low risk facilities,

DEQ oversight will be based primarily on complaints received. Facilities that DEQ determines present more environmental risk must submit a facility operations plan for DEQ approval and will operate under a compost permit. These facilities will receive more traditional regulatory oversight. This two track system will make the composting program more efficient and focused because the level of DEQ involvement will be proportional to the potential environmental risk presented by the facility.

- The previous rule package included a new general stormwater permit, designated 1200-CP, designed specifically for composting facilities. This proposed permit was similar to the 1200-Z, the general industrial permit composting facilities currently use, but included some additional compost-specific benchmarks for biological oxygen demand and other constituents. DEQ reviewed the status of the proposed 1200-CP permit after litigation involving the 1200-Z. Based on that review and advice from the Department of Justice, DEQ has decided not to move forward with the 1200-CP at this time. We will evaluate the status of the 1200-CP and next steps as we work on revision to the 1200-Z. In the meantime, composting facilities may continue to register and operate under the 1200-Z. DEQ is also encouraging composting facilities to consider opportunities to beneficially reuse stormwater and facility process water, for example, to water compost piles during dry months or to irrigate crops, as alternatives to discharging into surface water.

EQC Involvement

The rules will be proposed for adoption by the EQC at its August 2009 meeting.

Attachments

None

Available Upon Request

Proposed rules: OAR 340 Divisions 93, 96, 97, and 12
Draft Screening Internal Management Directive
Fiscal Impact Statement

Approved:

Division: Wendy Wilson

Report Prepared By: Charles Landman
Phone: (503) 229-6461

State of Oregon
Department of Environmental Quality Memorandum

Date: May 22, 2009

To: Environmental Quality Commission

From: Dick Pedersen, Director

Subject: Agenda Item N, Rule Adoption: 2009 Omnibus Hazardous Waste Rulemaking
June 18-19, 2009 EQC meeting

Why this is Important

This rulemaking is necessary to maintain equivalency and enforcement authority for recently promulgated federal hazardous waste rules, to satisfy commitments to the Environmental Protection Agency and to clarify and correct existing rules.

DEQ Recommendation and EQC Motion

The Department of Environmental Quality recommends that the Environmental Quality Commission adopt the proposed hazardous waste rule amendments as presented in Attachment A-3.

Background and Need for Rulemaking

DEQ operates the federal hazardous waste program in Oregon under delegation from EPA. A condition of continuing delegation is that Oregon must periodically review and adopt new or changed federal rules. DEQ last updated its rules in October 2003, incorporating by reference most federal rules promulgated through June 30, 2002. DEQ proposes to adopt 13 federal rules published between July 1, 2002 and June 30, 2007. None of the rules are more stringent than DEQ's current rules, so we do not expect negative fiscal or economic impacts to regulated entities in Oregon.

Effect of Rule

By adopting the proposed amendments, DEQ's hazardous waste program will remain consistent with the federal program. This will give the regulated community certainty that they meet both state and federal hazardous waste requirements and prevent a gradual divergence of programs that, either now or over time, would result in parties in Oregon being subject to two different hazardous waste programs.

EQC Authority

The commission has authority to take action on these issues under ORS 465.009, 466.020 & 465.505, ORS 466.165 & 468.020, ORS 183, ORS 459 and ORS 468. These proposed rules implement ORS 465.003, 465.009, 466.005, 466.075, 466.105, 465.505, 466.020, and 466.150.

Stakeholder Involvement

Since this is a routine rulemaking and the federal rules being adopted are either less stringent or no more stringent than current DEQ rules, no advisory committee was involved in developing the rules, and stakeholder involvement was limited to the required formal notification by mailing list and publication in the Secretary of State's *Bulletin*.

Public Comment

The public comment period extended from January 1, 2009 to February 10, 2009, and included a public hearing in Portland. Results of public input are provided in Attachment C.

Key Issues

No significant policy issues were identified in the course of preparing this rulemaking.

Next Steps

The rules will become effective upon filing with the Secretary of State, or after June 22, 2009.

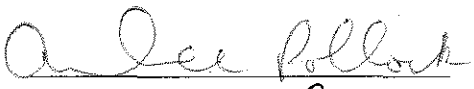
Attachments

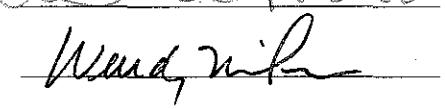
A. Proposed rule revisions
   1. Summary of Oregon Administrative Rule revisions
   2. Federal hazardous waste rule amendments to be adopted
   3. Proposed rule revisions {redlined version}
B. Summary of public comments and DEQ's responses
C. Presiding officer's report on public hearings
D. Relationship 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. Written comments received

Approved:

Section: 

Division: 

Report prepared by: Scott Latham
Phone: 503-229-5953

Summary of Oregon Administrative Rule Revisions

1. **Amendment**: Amend OAR 340-100-0002, Adoption of United States Environmental Protection Agency Hazardous Waste and Used Oil Management Regulations.

a) Background: With each successive adoption of federal hazardous waste regulations, DEQ amends OAR 340-100-0002 to record adopted federal rules and exclusions to the federal requirements. With this amendment, all of the federal rules in Attachment A-2 are adopted.

b) Oregon impact: This amendment to the OAR notes that all federal rules through June 30, 2007 are adopted by reference, except for the amendments to 40 CFR Parts 124, 260, 261, 262, 264, 265, 267, and 270 promulgated at:
- 63 Federal Register 56710-56735, October 22, 1998,
- 65 Federal Register 30886-30913, May 15, 2000,
- 69 Federal Register 21737-21754, April 22, 2004,
- 69 Federal Register 62217-62224, October 25,2004, and
- 70 Federal Register 53420-53478, September 8, 2005

c) Recommendation: Amend OAR 340-100-0002 to reflect adoption of federal regulations through June 30, 2007, with the exceptions noted.

2. **Correction**: Repeal OAR 340-102-0060, Instructions for the Uniform Hazardous Waste Manifest

a) Background: EPA's original hazardous waste manifest rule allowed states some variability in what information was required on the manifest and how it was handled. With the passage of the new Uniform Hazardous Waste Manifest rule (70 FR 10776-10825 promulgated March 4, 2005), which is proposed for adoption in this rulemaking (see Item 6, Attachment A-2), such flexibility has been removed and federal requirements supersede any conflicting state requirements.

b) Oregon impact: Our current rules do not conflict with the new federal rule, but they are redundant, and no longer needed.

c) Recommendation: Repeal the rule.

3. **Correction**: Amend OAR 340-102-0065, Hazardous Waste Generator Fees

a) Background: When originally adopted in 1991, the entirety of the hazardous waste generator fee was codified in rule. Over time, the base fee and the maximum fee became codified in statute. Each time the statute is changed, to increase or decrease the base fee and maximum fee, this rule had to be changed as well. This revision will eliminate duplication by referring to the statute, rather than repeating its contents.

b) Oregon impact: Clarifies that Oregon statute sets the base fee and maximum fees, and that administrative rules govern the balance of the hazardous waste generator fee system.

c) Recommendation: Adopt the rule correction.

4. **Correction**: Adopt 340-104-0021, General Inspection Provisions and 340-105-0140, General Inspection Provisions

a) Background: In July, 1999, EPA proposed a new program, National Environmental Performance Track. This is a voluntary program designed to recognize facilities that have a sustained record of compliance and have implemented high-quality environmental management systems. EPA provides exclusive regulatory and administrative benefits to Performance Track members, places them at low priority for routine inspections, and offers public recognition, networking opportunities, and other benefits. The program was designed, and is administered, by EPA.

b) Oregon Impact: The first federal rule that applied to Performance Track members was promulgated on April 22, 2004 (69 Federal Register 21737-21754) and modified October 25, 2004 (69 Federal Register 62217-62224). Because adoption of that rule could potentially commit DEQ to including Performance Track elements in all its media programs, DEQ has not yet determined whether to adopt it or similar rules. In March 2009, EPA suspended operation of the entire National Environmental Performance Track program. The RCRA Burden Reduction rule (71 FR 16862-16915 promulgated April 4, 2006, effective May 4, 2006), which is proposed for adoption in this rulemaking (see Item 11, Attachment A-2) includes some Performance Track provisions. Therefore, these rules delete those Performance Track provisions from DEQ's rules and hazardous waste program.

c) Recommendation: Adopt the correcting rules.

Federal Hazardous Waste Rule Amendments to be Adopted

1. **Proposed Rule:** Land Disposal Restrictions: National Treatment Variance To Designate New Treatment Subcategories for Radioactively Contaminated Cadmium-, Mercury-, and Silver- Containing Batteries [67 FR 62618-62624 – October 7, 2002, effective November 21, 2002]

a) What the rule does: Applies only to batteries that have become contaminated with radioactivity. Specifies macroencapsulation as treatment standard for such contaminated mixed wastes, rather than retorting.

b) Oregon impact: None anticipated, most such wastes are generated at nuclear power facilities.

c) Recommendation: Adopt the rule.

2. **Proposed Rule:** NESHAP: Standards for Hazardous Air Pollutants for Hazardous Waste Combustors (Corrections to previously published final rule) [67 FR 77687-77692 – December 19, 2002, effective December 19, 2002]

a) What the rule does: Technical corrections to NESHAPs EQC has already adopted.

b) Oregon impact: No substantive impacts.

c) Recommendation: Adopt corrections.

3. **Proposed Rule:** Hazardous Waste Management System; Identification and Listing of Hazardous Waste; Recycled Used Oil Management Standards (Clarification) [68 FR 44659-44665 – July 30, 2003, effective September 29, 2003]

a) What the rule does: Eliminates drafting errors and ambiguities about when used oil contaminated with PCBs is regulated, how mixtures of waste produced by conditionally exempt small quantity generators and used oil are regulated, and how marketers of on-spec used oil must keep records of shipments to facilities.

b) Oregon impact: Clarifies certain aspects of regulation of used oil.

c) Recommendation: Adopt the rule.

4. **Proposed Rule:** National Emission Standards for Hazardous Air Pollutants: Surface Coating of Automobiles and Light-Duty Trucks; Final Rule [69 FR 22601-22661 – April 26, 2004, effective June 25, 2004]

a) What the rule does: Institutes NESHAP under Clean Air Act authorities and removes duplicative Resource Conservation and Recovery Act of 1976 regulation.

b) Oregon impact: None: DEQ's Air Quality Division has already adopted their counterpart of this rule under the Clean Air Act.

c) Recommendation: Adopt the rule.

5. **Proposed Rule:** Hazardous Waste – Nonwastewaters From Production of Dyes, Pigments, and Food, Drug and Cosmetic Colorants; Mass Loadings-Based Listing; Final Rule [70 FR 9138-9180 – February 24, 2005, effective August 23, 2005]

a) What the rule does: Conditionally lists nonwastewaters from the production of dyes and/or pigments as a new waste stream. Establishes a land disposal restrictions standard and designates such wastes as hazardous materials subject to Superfund regulations.

b) Oregon impact: According to EPA background documents, no Oregon facilities are affected.

c) Recommendation: Adopt the rule.

6. **Proposed Rule:** Hazardous Waste Management System; Modification of the Hazardous Waste Manifest System; Final Rule [70 FR 10776-10825 – March 4, 2005, effective September 6, 2005, full effect September 5, 2006]

a) What the rule does: Makes the national hazardous waste manifest system truly uniform. Requirements already in effect under Department of Transportation authorities.

b) Oregon impact: No conflict with existing program, but necessitates deletion of OAR 340-102-0060, to avoid redundancy.

c) Recommendation: Adopt the rule.

7. **Proposed Rule:** Waste Management System; Testing and Monitoring Activities; Final Rule: Methods Innovation Rule and SW-846 Final Update IIIB & Correction [70 FR 34538-34592, 70 FR 44150-44151 – June 14, 2005, amended August 1, 2005, effective June 14, 2005]

a) What the rule does: Applies primarily to hazardous waste combustors.Generally allows for use of analytical methods other than SW-846 under RCRA and the Clean Air Act, except where SW-846 is the only method that produces reliable results.

b) Oregon impact: Applies to one facility in Oregon, which supports adoption.

c) Recommendation: Adopt the rule.

8. **Proposed Rule:** Hazardous Waste Management System; Modification of the Hazardous Waste Program; Mercury Containing Equipment [70 FR 45508-45522 – August 5, 2005, effective August 5, 2005]

a) What the rule does: Expands universal waste listing to include mercury-containing barometers, manometers, switches and other equipment.

b) Oregon impact: This rule will help prevent release of mercury to the environment and facilitate mercury recovery. DEQ considers mercury a priority contaminant.

c) Recommendation: Adopt the rule.

9. **Proposed Rule:** Revision of Wastewater Treatment Exemptions for Hazardous Waste Mixtures ("Headworks exemptions") [70 FR 57769-57785 – October 4, 2005, effective November 3, 2005]

a) What the rule does: Adds benzene and 2-ethoxyethanol to list of solvents exempted from RCRA when mixed with wastewaters; gives generator the option to measure chemical levels at the headworks to determine whether the exemption applies; and extends the *de minimis* exemption to other listed hazardous wastes beyond discarded commercial chemical products and to non-manufacturing facilities.

b) Oregon impact: No Oregon facilities are known to be affected by adding two chemicals to the exempted list. Extension of the *de minimis* exemption for wastewater treatment plants is not controversial.

c) Recommendation: Adopt the rule.

10. **Proposed Rule:** National Emission Standards for Hazardous Air Pollutants: Final Standards for Hazardous Air Pollutants for Hazardous Waste Combustors (Phase I Final Replacement Standards and Phase II) [70 FR 59402-59579 – October 12, 2005, effective December 12, 2005]

a) What the rule does: Shifts regulation to Clean Air Act authorities.

b) Oregon impact: None: DEQ's Air Quality Division has already adopted their counterpart of this package under Clean Air Act authorities.

c) Recommendation: Adopt the rule.

11. **Proposed Rule:** Resource Conservation and Recovery Act Burden Reduction Initiative – 71 FR 16862-16915 [April 4, 2006, effective May 4, 2006]

a) What the rule does: A comprehensive rule that reduces certifications, monitoring, and reporting. This rule reduces the frequency of tank inspections from daily to weekly at TSDs and LQGs; option for TSDs of following the integrated contingency plan guidance; and option for TSDs to follow either RCRA or OSHA standards for emergency response training.

b) Oregon impact: Applies mainly to hazardous waste management facilities, of which Oregon has three. Is a rule change to simplify practices while maintaining quality.

c) Recommendation: Adopt the rule.

12. **Proposed Rule:** Hazardous Waste and Used Oil; Corrections to Errors in the Code of Federal Regulations [71 FR 40254-40280 – July 14, 2006, effective July 14, 2006]

a) What the rule does: Omnibus correction of over 500 typos, incorrect cross-references, printing errors, and other errata, mostly detected by state and EPA regional office staff.

b) Oregon impact: None: No substantive change to law.

c) Recommendation: Adopt corrections.

13. **Proposed Rule:** Hazardous Waste Management System; Modification of the Hazardous Waste Program; Cathode Ray Tubes [71 FR 42928 – 42949 - July 28, 2006, effective January 29, 2007]

a) What the rule does: Exempts used intact cathode ray tubes from the definition of solid waste. Conditionally excludes used broken cathode ray tubes and glass removed from cathode ray tubes from the definition of solid waste when recycled.

b) Oregon impact: Will support DEQ's new E-Cycle initiative and ensure safe recycling.

c) Recommendation: Adopt the rule.

340-100-0002

Adoption of United States Environmental Protection Agency Hazardous Waste and Used Oil Management Regulations

(1) Except as otherwise modified or specified by OAR 340, divisions 100 to 106, 109, 111, 113, 120, 124 and 142 the rules and regulations governing the management of hazardous waste, including its generation, transportation, treatment, storage, recycling and disposal, prescribed by the United States Environmental Protection Agency in Title 40 Code of Federal Regulations, Parts 260 to 266, 268, 270, 273 and Subpart A and Subpart B of Part 124 promulgated through July 1, ~~2002~~ 2007, and including the rules promulgated July 14, 2006 ~~24, 2002~~ at 71 ~~67~~ Federal Register 40254-40280 ~~48393~~ and July 28, 2006 at 71 Federal Register 42928-42949, except the amendments to 40 CFR Parts 124, 260, 261, 262, 264, 265, 267, and 270 as promulgated at 63 Federal Register 56710-56735, October 22, 1998, ~~and~~ 65 Federal Register 30886-30913, May 15, 2000, 69 Federal Register 21737-21754, April 22, 2004, 69 Federal Register 62217-62224, October 25,2004, and 70 Federal Register 53420-53478, September 8, 2005, are adopted by reference and prescribed by the Commission to be observed by all persons subject to ORS 466.005 to 466.080 and 466.090 to 466.215.

(2) Except as otherwise modified or specified by OAR 340, division 111, the rules and regulations governing the standards for the management of used oil, prescribed by the United States Environmental Protection Agency in Title 40 Code of Federal Regulations, Part 279 promulgated through July 24, 2002, are adopted by reference into Oregon Administrative Rules and prescribed by the Commission to be observed by all persons subject to ORS 466.005 to 466.080 and 466.090 to 466.215.

COMMENT: The Department uses the federal preamble accompanying the federal regulations and federal guidance as a basis for regulatory decision-making.

[Publications: Publications referenced are available from the agency.]

Stat. Auth.: ORS 465.009, 466.020 & 465.505
Stat. Implemented: ORS 465.003, 465.009, 466.005, 466.075, 466.105 & 465.505

~~**340-102-0060**~~

~~**Instructions for the Uniform Hazardous Waste Manifest**~~

~~(1) In addition to the instructions in the Appendix to 40 CFR Part 262, relating to completion of the Uniform Hazardous Waste Manifest, generators shall also comply with sections (2), (3), (4), and (5) of this rule.~~

~~(2) Enter a telephone number where an authorized agent of the first transporter may be reached in the event of an emergency, in:~~

~~(a) Item D of EPA Form 8700-22; and~~

~~(b) Item O of EPA Form 8700-22A, if applicable.~~

~~(3) Enter a telephone number where an authorized agent of the second transporter may be reached in the event of an emergency, in:~~

~~(a) Item F of EPA Form 8700-22; and~~

~~(b) Item Q of EPA Form 8700-22A, if applicable.~~

~~(4) Enter a telephone number where an authorized agent of the facility may be reached in the event of an emergency in Item H of EPA Form 8700-22.~~

~~(5) Enter the EPA Hazardous Waste Number in:~~

~~(a) Item I of EPA Form 8700-22; and~~

~~(b) Item R of EPA Form 8700-22A, if applicable.~~

~~(6) The authorized disposal request number may be entered in:~~

~~(a) Item 15 of EPA Form 8700-22; and~~

~~(b) Item 32 of EPA Form 8700-22A, if applicable.~~

~~[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the agency.]~~

~~Stat. Auth.: ORS 183, ORS 459 & ORS 468~~
~~Stats. Implemented: ORS 466.020 & ORS 466.075~~

340-102-0065

Hazardous Waste Generator Fees

(1) Each person generating more than 100 kilograms (220 pounds) of hazardous waste, or more than 1 kilogram (2.2 pounds) of acutely hazardous waste, in any calendar month, or accumulating more than 1,000 kilograms (2,200 pounds) of hazardous waste at any time in a calendar year, shall be subject to an annual hazardous waste generation fee. Fees shall be assessed annually for hazardous waste management activities in the previous year.

(2) A late charge equal to ten percent of the fee due shall be assessed if the fees are not received by the Department by the due date shown on the invoice. An additional late charge of ten percent of the unpaid amount shall also be assessed each 30 days that the invoice remains unpaid. After 90 days no further Department late charges shall be assessed; however, such invoices may be referred to the Department of Revenue for collection or collected in Small Claims Court. Accounts referred to the Department of Revenue for collection or collected in Small Claims Court shall be increased by 20 percent of the unpaid amount or $100, whichever is greater, to recover a portion of the costs for referral or collection.

(3) The ~~A~~ base hazardous waste generation fee is set at ORS 466.165 (3). ~~, expressed in mills per kilogram, shall be fixed by rule by the Commission, based on reports from the Department on the total amount of hazardous waste generated in the state and the methods by which the waste was managed:~~

~~(a) The Department may use the base fee, or any lesser fee, to determine annual generation fee invoices. Any increase in the base fee must be fixed by rule by the Commission;~~

~~(b) Beginning with hazardous waste generated and managed during 2003, the base fee is fixed at 110 mills per kilogram ($110 per metric ton).~~

~~(4)~~ Each person's hazardous waste generation fee shall be calculated by multiplying the base fee by the weight of each hazardous waste stream and by the fee factors listed below for the management method reported in the annual generation report (OAR 340-102-0041) as follows:

Management Method -- Fee Factor

Metals Recovery (For Reuse) -- 0.50

Solvents Recovery -- 0.50

Other Recovery -- 0.50

Hazardous wastewater that is not managed immediately upon generation only in on-site elementary neutralization unit(s) (ENU) or wastewater treatment unit(s) (WWTU) -- 0.50

Incineration -- 1.00

Energy Recovery (Reuse as Fuel) -- 0.75

Fuel Blending -- 0.75

Aqueous Inorganic Treatment -- 1.00

Aqueous Organic Treatment-- 1.00

Aqueous Organic and Inorganic Treatment (Combined) -- 1.00

Sludge Treatment -- 1.00

Other Treatment -- 1.00

Stabilization -- 1.00

Neutralization (offsite) -- 0.75

Land Disposal -- 1.50

Management method unknown or not reported -- 2.00

RCRA-Exempt Management Elementary Neutralization Unit(s) on-site (Includes only corrosive characteristic hazardous waste that is managed immediately upon generation only in an on-site elementary neutralization unit(s)) -- 0.00

Permitted Discharge under Clean Water Act Section 402 or 307b (Includes only hazardous wastewater that is managed immediately upon generation only in an on-site wastewater treatment unit(s)) -- 0.00

In order to determine annual hazardous waste generation fees, the Department may use generator reports required by OAR 340-102-0041; facility reports required by OAR 340-104-0075; information derived from manifests required by 40 CFR 262.20; and any other relevant information. Unless density information is reported, the Department will use the following conversion factors: I metric ton = 1,000 kilograms 2,205 pounds 1.10 short tons = 1.31 cubic yards = 264.23 gallons = 4.80 drums (55 gallon).

~~(5) The maximum annual hazardous waste generation fee on any initial fee invoice shall be limited to $27,500.~~

(4) ~~(6)~~ Effective January 1, 1997, in addition to the annual hazardous waste generation fee, each hazardous waste generator shall be subject to an annual hazardous waste activity verification fee, upon billing by the Department, as follows:

(a) Large Quantity Generator: $525;

(b) Small Quantity Generator: $300;

(c) Conditionally Exempt Small Quantity Generator: No Fee.

[Publications: Publications referenced are available from the agency.]

Stat. Auth.: ORS 466.165 & 468.020
Stats. Implemented: ORS 466.165

340-104-0021

General Inspection Provisions

(1) The provisions of 40 CFR 264.15 (b) (4) and (5) that reference Performance Track are deleted.
(2) The provisions of 40 CFR 264.174 that reference Performance Track are deleted.
(3) The provisions of 264.195 (e) that reference Performance Track are deleted.

Stat. Auth.: ORS 183, ORS 459 & ORS 468
Stats. Implemented: ORS 466.195 & ORS 466.150

340-105-0140

General Inspection Provisions

(1) The provisions of 40 CFR 265.15 (b) (4) and (5) that reference Performance Track are deleted.
(2) The provisions of 40 CFR 265.174 that reference Performance Track are deleted.
(3) The provisions of 265.195 (d) that reference Performance Track are deleted.
(4) The provisions of 265.201 (e) that reference Performance Track are deleted.
(5) The requirements of 40 CFR 270.42 that reference Performance Track are deleted.

Stat. Auth.: ORS 183, ORS 459, ORS 466 & ORS 468
Stats. Implemented: ORS 466.020, ORS 466.105 & ORS 466.150

Summary of Public Comment and Agency Response

2009 Omnibus Hazardous Waste Rulemaking
Prepared by: Scott Latham **Date: June 1, 2009**

Comment period

The public comment period opened January 1, 2009 and closed at 5:00 p.m. February 10, 2009. DEQ held a public hearing on February 3, 2009 at its headquarters in Portland. No members of the public attended the hearing or offered comments. Two commenters submitted written comments.

Organization of comments and responses

Summaries of individual comments and DEQ's responses are provided below. A list of commenters and their reference numbers follows the summary of comments and responses.

Summary of Comments and Agency Responses	
Comment 1	A commenter was disappointed that this package covered EPA rules only through July 14, 2006, leaving DEQ's rules more than two years out of date. The commenter also expressed disappointment that an EPA's Definition of Solid Waste rule, adopted October 7, 2008, was not included in this rulemaking package and requested that DEQ review the rule and incorporate it into this package.
Response	This rulemaking covers all EPA hazardous waste rules adopted through June 30, 2007. DEQ began its internal review process for the current rulemaking package in January, 2008. The authorization to start rulemaking, an internal control document by which management reviews and fixes the scope of a rulemaking, was granted in August, 2008. Formal notice of the rulemaking was published in January, 2009. Due to the requirements of the public comment period for this rulemaking, DEQ would be required to restart the rulemaking process and miss establish deadlines. While this rulemaking package is mostly noncontroversial and straightforward, with little or no impact on Oregon's regulated community, The Definition of Solid Waste rule is complex and controversial. DEQ anticipates the need to convene a special advisory committee to help guide its decision on whether to adopt that rule, and how best to implement it.

Comment 2	The commenter expressed enthusiastic support for the adoption of the cathode ray tube rule and the mercury-containing equipment rule. The commenter also was concerned about the effects on the environment of incorrectly recycled or unrecycled E-waste.
Response	DEQ also strongly supports both the federal rules cited, and believes that its new E-Cycles program will help ensure safe recycling of electronic waste, such as computers, monitors and televisions.

List of Commenters and Reference Numbers				
Reference Number	**Name**	**Organization**	**Address**	**Date on comments**
1	J. Mark Morford	Stoel Rives LLP	900 SW 5th Ave, Portland, OR 97204	1/5/2009
2	Tom Pritchett	CRT Processing, LLC	2535 Beloit Ave, Janesville, WI 52546	2/5/2009

Attachment C
June 18-19, 2009 EQC meeting

State of Oregon
Department of Environmental Quality Memorandum

Date: February 5, 2009

To: Environmental Quality Commission

From: David LeBrun, Senior RCRA Policy Analyst
Hazardous Waste Program
Land Quality Division
Acting Presiding Officer

Subject: Presiding Officer's Report for Public Hearing Regarding Omnibus Hazardous Waste Rule

Public Hearing Date and Time: February 3, 2009 at 3:00 p.m.

Public Hearing Location: DEQ Headquarters, Room 10, 811 S.W. 6th Avenue, Portland, Oregon

The presiding officer was convened the hearing at 3:00 p.m. and adjourned the hearing until 3:30 p.m. as no one from the public signed up to provide testimony. No introductory remarks were given as no one was present to provide testimony.

At 3:32 p.m. the presiding officer reopened the hearing and then closed the hearing at 3:32 p.m. as no one had signed up to provide testimony.

There was no oral or written testimony or exhibits submitted at this public hearing.

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Relationship to Federal Requirements

2009 Omnibus Hazardous Waste Rulemaking

Answers to the following questions identify how the proposed rulemaking relates to federal requirements and potential justification for differing from, or adding to, federal requirements. This statement is required by OAR 340-011-0029(1).

1. Is the proposed rulemaking different from, or in addition to, applicable federal requirements? If so, what are the differences or additions?

Most of the rules proposed for adoption are federal requirements, and thus neither different from, or in addition to, federal rules. One state-only rule (OAR 340-102-0060) is proposed for repeal because it conflicts with a federal rule being adopted. Two state-only rules (OAR 340-104-0021 and OAR 340-105-0140) proposed for adoption delete certain provisions from federal rules concerning EPA's National Environmental Performance Track Program, which DEQ has not adopted. The state-only rule (OAR 340-102-0065) proposed for amendment is in addition to federal requirements, which make no provision for fees.

2. If the proposal differs from, or is in addition to, applicable federal requirements, explain the reasons for the difference or addition (including as appropriate, the public health, environmental, scientific, economic, technological, administrative or other reasons).

Two state-only rules (OAR 340-104-0021 and OAR 340-105-0140) proposed for adoption delete certain provisions from federal requirements concerning EPA's National Environmental Performance Track Program. This program may affect several DEQ programs, and DEQ has not yet decided whether to support and implement this initiative. It would be inappropriate for the hazardous waste program to commit the agency in this matter. The state-only rule (OAR 340-102-0065) proposed for amendment reconciles our fee rules with changes made to statute during the 2007 legislative session.

3. If the proposal differs from, or is in addition to, applicable federal requirements, did the Department consider alternatives to the difference or addition? If so, describe the alternatives and the reason(s) they were not pursued.

DEQ did not consider alternatives to the decisions it made with regard to rules different from, or in addition to, federal requirements.

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

Title of Proposed Rulemaking	2009 Omnibus Hazardous Waste Rulemaking
Statutory Authority or other Legal Authority	OAR 340-100-0002 is authorized by ORS 465.009, 466.020 & 465.505 OAR 340-102-0065 is authorized by ORS 466.165 & 468.020 OAR 340-104-0021 and OAR 340-105-0140 are authorized by ORS 183, ORS 459 & ORS 468
Statutes Implemented	OAR 340-100-0002 implements ORS 465.003, 465.009, 466.005, 466.075, 466.105 & 465.505 OAR 340-102-0065 implements ORS 466.165 OAR 340-104-0021 and OAR 340-105-0140 implement ORS 466.020 and 466.150
Need for the Rule(s)	• Adoption of the federal rules cited here will ensure that DEQ's hazardous waste program is equivalent to EPA's, thus allowing DEQ's delegation to operate in Oregon to continue. • A state-only rule (OAR 340-102-0060) is proposed for deletion because it conflicts with a federal rule being adopted. • Another state-only rule (OAR 340-102-0065) is being amended to reflect changes to Oregon Revised Statutes made during the 2007 legislative session. • Two new state-only rules (OAR 340-104-0021 and OAR 340-105-0140) are to be adopted to delete certain provisions of federal rules relating to EPA's National Environmental Performance Track Program, which DEQ has not adopted.
Documents Relied Upon for Rulemaking	The principal documents relied on for the assessment of fiscal and economic impacts are the Federal Registers in which the federal rules proposed for adoption were originally published. DEQ also consulted its own hazardous waste database and that of the Secretary of State's Corporation Division.
Requests for Other Options	DEQ would be very interested to learn whether any of its conclusions about the fiscal and economic impact of the proposed rule changes is incorrect, especially if there is a negative affect we did not identify. **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	Since none of the federal rules proposed for adoption are more stringent than current DEQ rules, there is generally no negative fiscal or economic effect from their adoption.
Impacts on the General Public	None of these rules impact the general public.
Impacts to Small	Only three of the federal rules being adopted are broadly applicable to small business

Business (50 or fewer employees – ORS183.310(10))	and might therefore have a fiscal or economic impact: the modification of the hazardous waste manifest system ("Manifest") rule (70 FR 10776-10825 – March 4, 2005); the modification of the hazardous waste program: mercury containing equipment rule (70 FR 45508-45522 – August 5, 2005); and the cathode ray tube rule (71 FR 42928 – 42949 - July 28, 2006). However, there is no economic or fiscal impact from DEQ's adoption of the manifest rule, because the rule has been in effect since September 6, 2006 nation-wide, under U.S. Department of Transportation authority that preempts conflicting state rules. The mercury-containing equipment rule allows barometers, manometers, switches, and other mercury-containing equipment to be managed as universal waste, which is less stringent than current rules. The cathode ray tube rule is also less stringent than current DEQ rules, in that it exempts used, intact cathode ray tubes from the definition of solid waste and conditionally excludes used, broken cathode ray tubes and glass removed from cathode ray tubes from the definition of solid waste. This will result in lower costs of operation overall.	
Cost of Compliance on Small Business (50 or fewer employees – ORS183.310(10))	a) Estimated number of small businesses subject to the proposed rule	• Out of the 535 hazardous waste generators required to use the uniform hazardous waste manifest, 227 identified as small businesses. • The mercury-containing equipment rule will likely impact several hundred small businesses, who will find it easier and more economical to manage such wastes. • With the advent of DEQ's electronics recycling program, known as Oregon E-Cycles, we anticipate that as many as 40 small businesses may be involved in the collection and management of used cathode ray tubes.
	b) Types of businesses and industries with small businesses subject to the proposed rule	• Small businesses that generate regulated quantities of hazardous waste, and are thus affected by the manifest rule, include automotive repair and body shops, painting and coating contractors, metal platers, construction and demolition contractors, printers and allied industries, pesticide applicators, and small woodtreaters. • Small businesses affected by the mercury-containing equipment rule include construction and demolition contractors, vehicle repair shops, salvage yards, dairies, and electrical contractors. • Small businesses affected by the cathode ray tube rule are typically involved in collection of industrial, commercial, and household waste, and recyclables.

	c) Projected reporting, recordkeeping and other administrative activities required by small businesses for compliance with the proposed rule, including costs of professional services	No new reporting, recordkeeping and other administrative activities (including professional services—such as consultants, attorneys, etc.) are required for compliance with the proposed rules.
	d) The equipment, supplies, labor, and increased administration required by small businesses for compliance with the proposed rule	No new equipment, supplies, labor, or increased administration is required for compliance by small businesses with the proposed rules.
	e) A description of the manner in which DEQ involved small businesses in the development of this rulemaking	Because the adoption of these rules has no negative fiscal or economic impact, DEQ did not attempt to involve small businesses in the development of this rulemaking.
Impacts on Large Business (all businesses that are not "small businesses" under ORS183.310(10))	Since none of the federal rules proposed for adoption is more stringent than current DEQ rules, there is generally no negative fiscal or economic effect from their adoption. • As noted above, the manifest rule is already in force and the mercury-containing equipment and cathode ray tube rules will decrease regulation. • The following three federal rules are technical corrections to typos, errata, drafting and printing errors, and ambiguities, and therefore do not constitute new regulations: NESHAP: Standards for Hazardous Air Pollutants for Hazardous Waste Combustors (corrections to previously published final rule) – 67 FR 77687-77692 – December 19, 2002; Recycled Used Oil Management Standards (Clarification) – 68 FR 44659-44665 – July 30, 2003; and Corrections to Errors in the Code of Federal Regulations – 71 FR 40254-40280 – July 14, 2006. • Two federal rules do not apply to any facilities in Oregon: National Treatment Variance To Designate New Treatment Subcategories for Radioactively Contaminated Cadmium-, Mercury-, and Silver- Containing Batteries – 67 FR 62618-62624 – October 7, 2002 and Nonwastewaters From Production of Dyes, Pigments, and Food, Drug and Cosmetic Colorants; Mass Loadings-Based Listing; Final Rule – 70 FR 9138-9180 – February 24, 2005. • Two federal rules concern National Emission Standards for Hazardous Air Pollutants, or NESHAPS: Surface Coating of Automobiles and Light-Duty Trucks; Final Rule – 69 FR 22601-22661 – April 26, 2004 and Final Standards for Hazardous Air Pollutants for Hazardous Waste Combustors (Phase I Final Replacement Standards and Phase II) – 70 FR 59402-59579 – October 12, 2005. Under this initiative, EPA is consolidating regulatory oversight for	

	certain activities under the Clean Air Act. DEQ's air quality program has already adopted its portion of these rules, and the changes to the hazardous waste rules are complementary. • The remaining three federal rules proposed for adoption are all less stringent than current DEQ rules: the Methods Innovation Rule and SW-846 Final Update IIIB & Correction ("Methods") rule – 70 FR 34538-34592, 70 FR 44150-44151 – June 14, 2005, amended August 1, 2005; the Revision of Wastewater Treatment Exemptions for Hazardous Waste Mixtures ("Headworks exemptions") rule – 70 FR 57769-57785 – October 4, 2005; and the Resource Conservation and Recovery Act Burden Reduction Initiative ("Burden Reduction") rule – 71 FR 16862-16915 – April 4, 2006
Impacts on Local Government	The hazardous waste rules do not distinguish between local governments and other regulated entities, so the effects identified for small and large businesses apply to them as well.
Impacts on State Agencies other than DEQ	The hazardous waste rules do not distinguish between state agencies and other regulated entities, so the effects identified for small and large businesses apply to them as well.
Impacts on DEQ	No fiscal or economic impacts on DEQ's FTEs, revenues or expenses have been identified. Any rule change entails staff training and outreach, but the scope of this rulemaking is not large.
Assumptions	The key assumption made is estimating fiscal and economic impacts is that less stringent regulations have no negative impact on regulated entities. The other assumption is that fiscal and economic impacts identified in federal rulemaking are accurate and applicable to Oregon facilities as they are at the federal level.
Housing Costs	DEQ 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.
Administrative Rule Advisory Committee	Since the federal rules being adopted are either less stringent or no more stringent than current DEQ rules, no advisory committee was involved in developing the rules.

_____	R. Scott Latham	December 5, 2008
Prepared by	Printed name	Date
_____	_____	_____
Approved by DEQ Budget Office	Printed name	Date

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY

Land Use Evaluation Statement

Rulemaking Proposal
for
2009 Omnibus Hazardous Waste Rulemaking

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

The Department of Environmental Quality operates the federal hazardous waste program in Oregon under delegation from the Environmental Protection Agency. A requirement for continuing delegation is that the state must periodically review and adopt new or changed federal rules. DEQ last updated its rules in October 2003, incorporating by reference most federal rules promulgated through June 30, 2002. DEQ now proposes to adopt 13 federal rules published between July 1, 2002 and July 28, 2006. None of these rules are more stringent than DEQ's current rules, so we do not expect any negative fiscal or economic impacts to regulated entities in Oregon.

In addition, we are deleting one state rule that has been preempted by federal rules, adding two state rules that delete references to an EPA program DEQ has not adopted, and amending one state rule to reflect changes made to statute during the 2007 legislative session. None of the state rule changes increase either regulation or costs to regulated entities.

2. **Do the proposed rules affect existing rules, programs or activities that are considered land use programs in the DEQ state agency coordination program?**

Yes___ No X

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

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

Yes___ No___ (if no, explain):

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

Not applicable.

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

The proposed rules do not affect DEQ programs or actions that have been determined to have significant effects on land use. Specifically, the proposed rules do not influence the issuance of hazardous waste and PCB treatment, storage, and disposal facility permits.

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 DEQ will use to ensure compliance and compatibility.**

Not applicable.

State of Oregon
Department of Environmental Quality Memorandum

Date: June 2, 2009

To: Environmental Quality Commission

From: Dick Pedersen, Director

Subject: Agenda Item O, Informational Item: Water Reuse Update
June 18-19, 2009 EQC Meeting

Purpose of Item The purpose of this agenda item is to update the Environmental Quality Commission on DEQ's water reuse activities.

Background In April 2008, the EQC adopted revised rules on the use of recycled water that specifically identify over 30 beneficial purposes for which treated effluent from municipal wastewater treatment facilities may be used.

Under a memorandum of understanding signed in December 2006 with five other state agencies, DEQ committed to developing guidance though an internal management directive within one year of rule adoption. The internal management directive will assist DEQ staff implement the recycled water use rules.

At the April 2008 EQC meeting, the commission requested an update on the agency's water reuse activities after one year of implementing the revised rules.

Key Issues

Program Implementation
In May 2009, the Water Quality Division administrator approved the internal management directive *Implementing Oregon's Recycled Water Use Rules*.

The directive was developed for DEQ staff and addresses specific implementation issues that were identified during the rulemaking by the Water Reuse Task Force and the public during public comment on the rules. Other state agencies involved with water reuse and DEQ staff involved with permitting recycled water use also identified programmatic issues. Development of the directive was a coordinated effort among DEQ staff with contributions and comments from internal staff as well as other state agencies. Stakeholders also had an opportunity to comment on the directive.

This guidance will primarily assist DEQ staff in permitting recycled water use but also clarifies the roles of other state agencies during the permit process. The document may also assist interested persons or facilities with planning, development and implementation of recycled water use projects. The directive provides specific information on:

- Writing a recycled water use permit, including identifying conditions and limits, establishing monitoring and reporting requirements, and managing permit modifications;
- Reviewing recycled water use plans which are developed by permittees, and describe specific management practices and operational activities that will be followed in their recycled water use programs. DEQ reviews the plans to ensure that public health and the environment are protected during recycled water use operations; and
- Engineering review of recycled water systems, including the approval of new treatment system technologies and the design of recycled water systems.

Recycled Water Use and Interest

Interest in recycled water use continues to develop. Over 120 recycled water use projects are currently permitted in Oregon, and the Oregon Association of Clean Water Agencies has identified recycled water use as a top priority for its members during 2009. New or proposed recycled water use projects developed under the revised rules include:

- The Chehalem Glenn Golf Course is irrigated with Class A recycled water generated by the City of Newberg
- Toilet and urinal flushing at the new Port of Portland office building under construction at Portland International Airport will use recycled water treated on-site
- Seven requests for new recycled water projects have been submitted to DEQ requesting Clean Water State Revolving Fund loans totaling about $17 million
- Ten requests for upgrades to recycled water systems or irrigation system improvements have been submitted to DEQ requesting Clean Water State Revolving Fund loans totaling about $51 million.

Oregon Legislative Actions

The Oregon Legislature continues to express interest in water reuse activities. During the February 2008 special session, the Oregon Legislature passed Senate Bill 1069, which directed the Water Resources Department to provide grants for water conservation, reuse and storage projects, including the analyses of long-term environmental consequences. The Water Resources Department awarded 22 grants, including four water reuse projects. During the 2009 legislative session, House Bill 2080 was introduced, legalizing the use of gray water outside homes that are connected to a community sewer system. It establishes that a person may not construct, install or operate a gray water system without a permit from DEQ and directs the EQC to adopt rules for gray water permitting.

Attachments

A. Outline of the *Internal Management Directive - Implementing Oregon's Recycled Water Use Rules*

Available Upon Request

Full Text of the *Internal Management Directive - Implementing Oregon's Recycled Water Use Rules*

Approved:

Section:

Division:

Report Prepared By: Ron Doughten
Phone: (503) 229-5472

INTERNAL MANAGEMENT DIRECTIVE

IMPLEMENTING OREGON'S RECYCLED WATER USE RULES

May 2009
Version 1.0

State of Oregon
Department of Environmental Quality

Water Quality Division
Community and Program Assistance
811 SW Sixth Avenue
Portland, OR 97204
Phone: 503.229.5696
Toll Free: 800.452.4011
www.deq.state.or.us

This document supersedes any previous guidance documents or materials developed by DEQ on recycled or reclaimed water reuse.

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oregon association of CLEAN WATER agencies

Working with more than 80 community wastewater treatment agencies to protect Oregon's water

537 SE Ash, Suite 12
Portland, Oregon 97214
(503) 236-6722 Fax (503) 236-6719
www.oracwa.org

Environmental Quality Commission
Recycled Water Update
June 18, 2009

Chairman Blosser and Members of the Environmental Quality Commission:

The Oregon Association of Clean Water Agencies (ACWA) is a private, non-profit professional association of wastewater treatment and stormwater management utilities in Oregon, along with associated professionals. We have 118 members statewide.

Promoting recycled water is a high priority for ACWA and its members. Promoting the reuse of recycled water is one of the 10 highest priorities for ACWA action, as adopted by our Board of Directors in 2009/2010.

The use of recycled water is key to balancing Oregon's water resource use by better matching the quality of water to the job that needs to be accomplished. Oregon does not need to flush toilets, or mix concrete, or make paper with drinking water.

ACWA has worked for many years and invested hundreds of volunteer hours in working with the Department and other stakeholders to remove unnecessary roadblocks to environmentally sound recycled water projects. ACWA was actively involved in the SB 820 working group, chaired the rulemaking working group, and has been working closely with DEQ on the specifics in the Internal Management Directive for Recycled Water.

ACWA appreciates the time and thoughtful consideration that DEQ gave to our initial concerns regarding the draft IMD. We will continue to work closely with the Department and the regional permit writers in applying the specifics in the Recycled Water IMD to environmentally sound recycled water projects.

The revised recycled water rules, and now its companion IMD are steps in the right direction, but if recycled water is to take its appropriate place in meeting Oregon's water resource needs, more is needed.

-more-

We will continue to work with DEQ to take the next important steps including providing outreach and training to wastewater municipalities and districts, irrigation districts, large industrial and commercial water users, DEQ staff, and engineering consultants. All need specific training regarding the revised rules and guidance in order to incorporate recycled water projects into wastewater treatment facility planning. We look forward to working with DEQ to organize training and outreach efforts.

The Commission's continued interest and attention in recycled water regulations and guidance are important. We look forward to continuing to revise and improve these rules by identifying and removing roadblocks to environmentally sound recycled water projects. One area ACWA is very interested in is continuing to add specific uses that are included in the rules are approved outright for set classes of recycled water, along with allowing a provision for using a lower class of water for a use where sufficient scientific information can be provided that the proposed use will be protective.

We request that you ask DEQ to move revisions of the recycled water rules into the queue for rule making.