

**OREGON  
ENVIRONMENTAL QUALITY  
COMMISSION MEETING  
MATERIALS 12/13/2007**



---

**State of Oregon  
Department of  
Environmental  
Quality**

This file is digitized in *color* using Optical Character Recognition (OCR) in a standard PDF format.

Standard PDF Creates PDF files to be printed to desktop printers or digital copiers, published on a CD, or sent to client as publishing proof. This set of options uses compression and downsampling to keep the file size down. However, it also embeds subsets of all (allowed) fonts used in the file, converts all colors to sRGB, and prints to a medium resolution. Window font subsets are not embedded by default. PDF files created with this settings file can be opened in Acrobat and Reader versions 6.0 and later.

Thursday

(1)

# Oregon Environmental Quality Commission

## Public Forum Request to Present Information

Public Comment

Agenda Item   F   or  
Topic of Presentation

Public Comment - DEQ Staff

Comments on appointment of new Director

Name (Please print clearly)

Richard L. Schmitt

Address

811 SW 6th Ave  
Portland, OR 97204

Affiliation

AFSCME

Email (optional)

Phone (optional)

# Oregon Environmental Quality Commission

## Public Forum Request to Present Information

Public Comment

Agenda Item      or  
Topic of Presentation

Public Comment on the...  
Mortgage...

Christine Chavant

Name (Please print clearly)

157 E. 1st St, Suite 101, Astoria, OR 97103

Address

157 E. 1st St, Suite 101, Astoria, OR 97103

Affiliation

Email (optional)

Phone (optional)

(2)

4

# Oregon Environmental Quality Commission

Public Forum  
Request to Present Information

no funding

Agenda Item \_\_\_\_ or  
Topic of Presentation Surface Water

Travis Williams

Name (Please print clearly)

1515 SE John Ave, P.O. Box 10001

Address

Willamette Boarding

Affiliation

Email (optional)

Phone (optional)

# Oregon Environmental Quality Commission

Public Forum  
Request to Present Information

\* with email  
list addresses  
also call  
for public info

3

Agenda Item D or  
Topic of Presentation

Andrea L. Linton

Name (Please print clearly)

Address

1515 SE John Ave, P.O. Box 10001

Affiliation

Email (optional)

Phone (optional)

Oregon Environmental Quality Commission

Public Forum  
Request to Present Information

12/14/14

Agenda Item \_\_\_\_\_ or

Topic of Presentation DOB 100000. EAC Meeting

Glen Thompson

Name (Please print clearly)

1123 21st Ave

Address

S. 22nd St / Columbia

Affiliation

Email (optional)

Phone (optional)

Friday Dec. 14

Oregon Environmental Quality Commission

Public Forum  
Request to Present Information

Agenda Item \_\_\_\_\_ or

Topic of Presentation \_\_\_\_\_

Name (Please print clearly)

Address

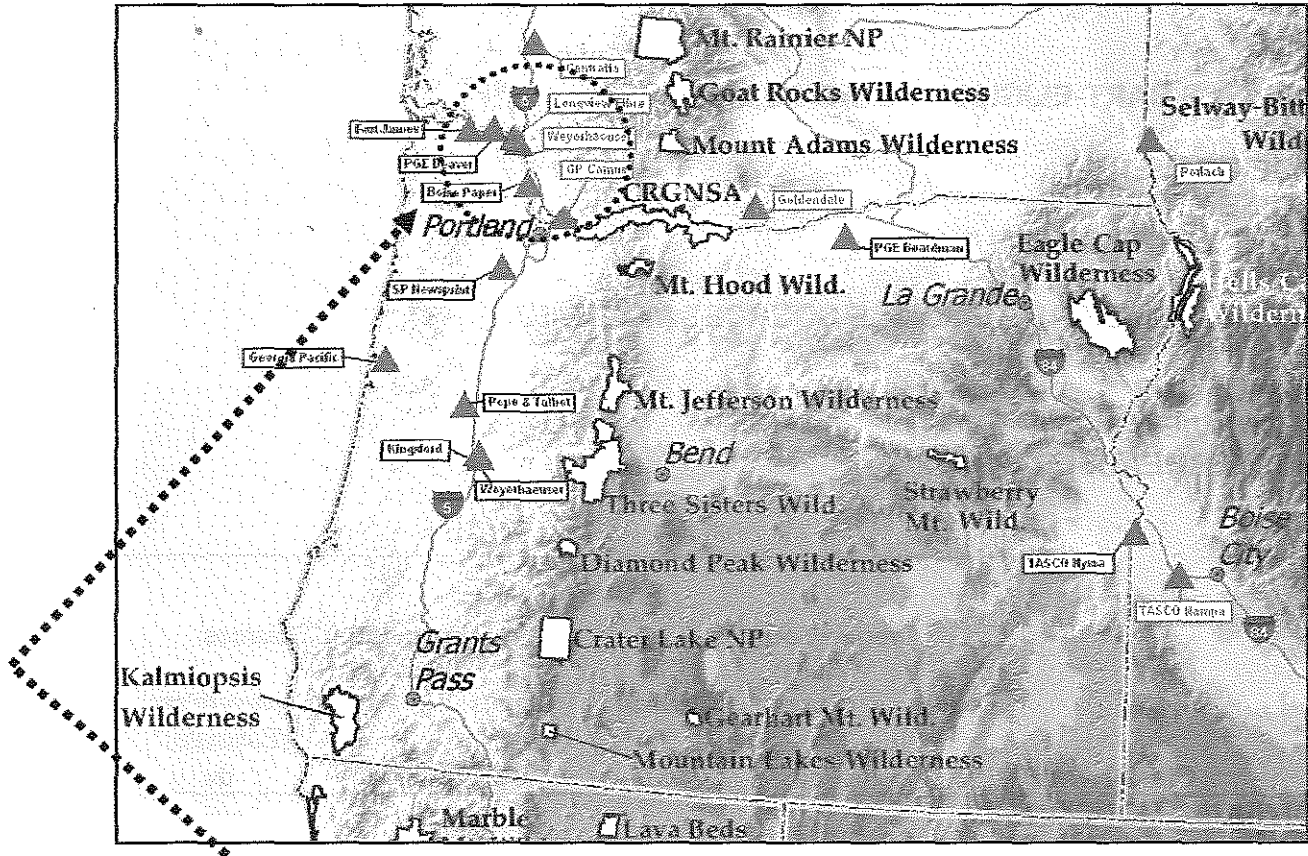
Affiliation

Email (optional)

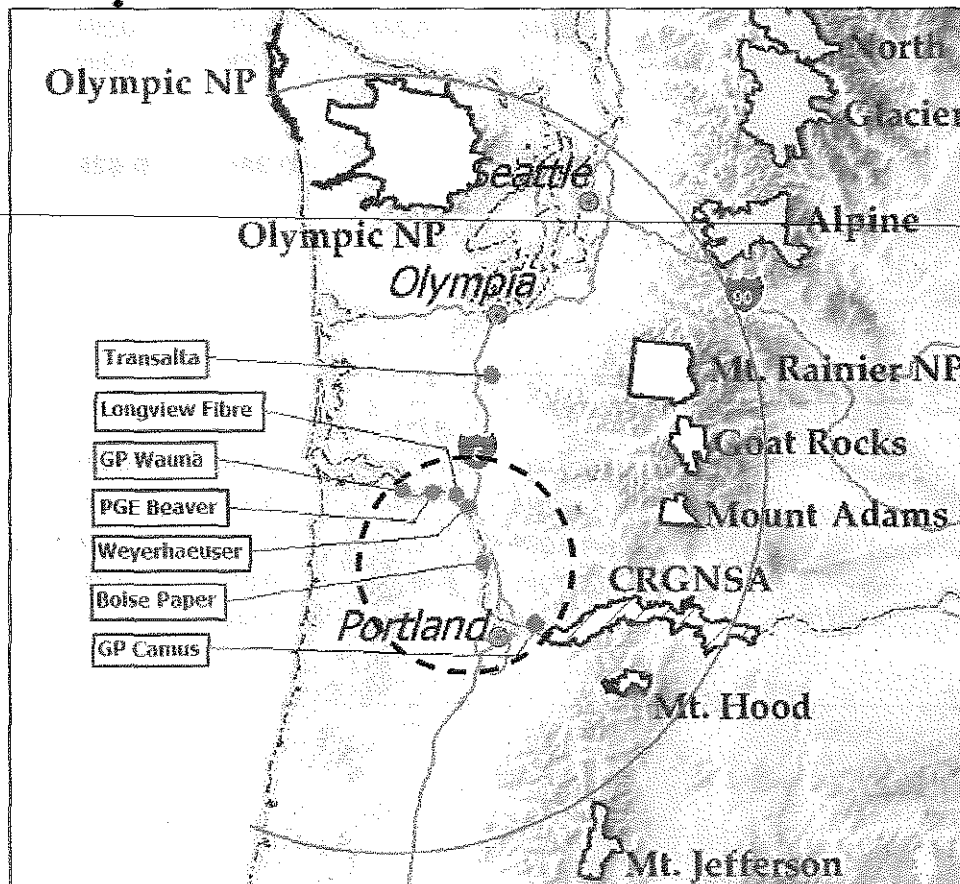
Phone (optional)

Executive Session  
 Andy Ginsburg  
 12/13/07

## LOCATION OF OREGON'S 9 BART-ELIGIBLE SOURCES



## AREA OF CUMULATIVE EVALUATION



## CUMULATIVE MODEING RESULTS

### OREGON'S BART-ELIGIBLE SOURCES MODELED:

1. PGE BEAVER
2. BOISE PAPER
3. FORT JAMES GP WAUNA

### WASHINGTON'S BART-ELIGIBLE SOURCES MODELED:

1. GP CAMUS
2. LONGVIEW FIBER
3. WEYERHEAUSER

*1 dv = smallest change in visibility perceivable by human eye*

Class I Area	Oregon Sources			Washington Sources			
	PGE Beaver dv	Boise Paper dv	GP Wauna dv	GP Camus dv	Longview Fibre dv	Weyerh'ser (Estimate)* dv	
<b>INDIVIDUAL MODELING</b>							
Goat Rocks	0.254	0.177	0.190	0.101	0.227	0.227	
Mt Adams	0.239	0.192	0.190	0.123	0.250	0.250	
Mt Hood	0.346	0.367	0.291	0.381	0.428	0.428	
Mt Rainier	0.375	0.246	0.274	0.101	0.299	0.299	
Olympic NP	0.400	0.224	0.369	0.086	0.289	0.289	
<b>TOTAL</b>	<b>0.400</b>	<b>0.367</b>	<b>0.369</b>	<b>0.381</b>	<b>0.428</b>	<b>0.428</b>	
<b>CUMULATIVE MODELING</b>							<b>TOTAL</b>
Goat Rocks	0.167	0.084	0.129	0.053	0.245	0.245	<b>0.921</b>
Mt Adams	0.347	0.045	0.167	0.001	0.201	0.201	<b>0.962</b>
Mt Hood	0.159	0.292	0.120	0.278	0.556	0.556	<b>1.962</b>
Mt Rainier	0.420	0.046	0.338	0.008	0.263	0.263	<b>1.340</b>
Olympic NP	0.289	0.119	0.685	0.000	0.141	0.141	<b>1.374</b>

# Oregon Environmental Quality Commission Meeting

December 13 and 14, 2007

Department of Environmental Quality Headquarters  
Room EQC A  
811 SW 6<sup>th</sup> Avenue  
Portland, Oregon

Thursday, December 13—Regular meeting begins at 8:30 am

**A. Preliminary Commission Business: Adoption of Minutes of the October 17-19, 2007 Meeting**

The Commission will review, amend if necessary, and approve draft minutes of the October 17-19, 2007, Commission meeting.

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

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

*Joni Hammond and Rich Duval, Department of Environmental Quality*

**C. Informational Item: Director's Dialogue**

Dick Pedersen, DEQ Deputy Director, will discuss current events and issues involving the Department.

**D. Action Item: New Director Selection Criteria and Appointment of Acting Director**

In order to meet statutory requirements, the Commission must solicit public comment on, and formally adopt hiring standards and criteria for the selection of the next Director of the Department of Environmental Quality before it can proceed with a recruitment. The Commission must also adopt a hiring timeline and appoint an Acting Director to oversee the agency until a new Director is named.

*Twyla Lawson, Department of Administrative Services, and Kerri Nelson, Department of Environmental Quality*

**E. Public Comment on Criteria for New Director Selection**

See item D.

**F. Action Item: Adopt Criteria for New Director Selection**

See item D.

**G. Action Item: Pollution Control Tax Credit Considerations**

The Pollution Control Facilities Tax Credit regulations direct the Commission to "certify a pollution control, solid waste, hazardous waste or used oil facility or portion thereof" if the Commission finds that the facility qualifies as a pollution control facility." EQC certification entitles an Oregon taxpayer to subtract up to 35 percent of the facility's cost from its Oregon tax liability.  
*Maggie Vandehey, Department of Environmental Quality*

**H. Informational Item: Align Tank Rules with Federal Regulations, Improve Existing Rules**

Wendy Wiles, Land Quality Administrator, will inform the Commission on the proposed amendments to the state's Underground Storage Tank (UST) Compliance Rules (OAR Chapter 340, Division 150). The proposed changes protect federal grant funding by aligning DEQ's UST regulations with federal law (Energy Act of 2005), implement changes approved by the 2007 Oregon Legislature (SB 104) and ensure operating facilities have pollution liability insurance to clean up leaks.

*Wendy Wiles, Department of Environmental Quality*

**Working Lunch**

The Commission will hold an Executive Session from 12:00 p.m. to 1:30 p.m. to consult with counsel concerning legal rights and duties regarding current or potential litigation against the DEQ. Only representatives of the media may attend and media representatives may not report on any deliberations during the session.[1]

**I. Action Item: 2008-09 Rulemaking Agenda**

Administrative rules are the mechanism by which many laws are implemented. The Department annually assembles and reviews its biennial rulemaking plans to address evolving environmental and administrative needs. The Commission reviews the proposed rules and adopts them through formal Commission actions. The Commission's review of this Rules Agenda is an opportunity for the Commission and the Department to identify rulemaking efforts that will benefit from additional Commission involvement and guidance.

*Larry McAllister and Program Administrators, Department of Environmental Quality*

**J. Informational Item: Update on Internal Strategic Directions Measures**

The Department's Internal Strategic Directions Measures, in combination with external performance measures, allow the Department to track its progress in achieving its Strategic Directions. Semi-annual review of the Internal Strategic Directions Measures is part of DEQ's efforts to meaningfully involve the Commission in high-level policy and planning efforts, and constitutes a "best practice" for the EQC.

*Kerri Nelson and Karen Whisler, Department of Environmental Quality*

**K. EQC Recognition of Outgoing Director, Stephanie Hallock**



## **Friday, December 14—Regular meeting begins at 9:00 am**

### **L. Introduction to Topics for the Day**

At its Strategic Planning discussion in October, the Commission expressed interest in preventing environmental problems through innovative actions related to climate change, energy, cross-media approaches, sustainability, and involving Oregonians. The items on Friday's agenda will inform the Commission of several such initiatives currently underway at DEQ and provide background information to inform future Commission discussions.

*Dick Pedersen, Deputy Director, Department of Environmental Quality*

### **M. Informational Item: Oregon's Actions to Address Climate Change**

During the last five years, Governor Kulongoski has developed an aggressive agenda to combat global warming, including several initiatives that are underway to reduce greenhouse gas emissions in Oregon. This informational item will update the Commission on efforts to address climate change in Oregon, focusing on DEQ's role. The Department is implementing two initiatives: the Oregon Low Emission Vehicle Program, and the development of Greenhouse Gas Mandatory Reporting Rules.

*Andy Ginsburg, Department of Environmental Quality, and David Van't Hof, Governor's Sustainability Advisor*

### **N. Informational Item: Life Cycle Analysis and New Direction's in DEQ's Solid Waste Program**

While Oregonians are recovering a larger percentage of our waste, the total amount of waste we generate continues to grow steeply. Analysis suggests that increasing consumption is contributing to the rise in waste generation, which means that focusing on waste recovery alone will not necessarily reduce the flow of waste into the state's landfills and garbage incinerators. More significantly, for many materials the environmental burdens of production are many times greater than the environmental burdens of waste disposal. DEQ's Solid Waste Program has several initiatives currently underway to address these challenges, including the development of new analytical tools such as life cycle analysis (LCA), an accounting of the environmental burdens or impacts over the entire life of a material or product.

*Wendy Wiles, David Allaway and Loretta Pickerell, Department of Environmental Quality*

### **O. Public Forum**

The Commission will provide members of the public an opportunity to speak to the Commission on environmental issues that are not part of the agenda, or for which there is otherwise no public testimony at this meeting. Individuals wishing to speak to the Commission must sign a request form at the meeting and limit presentations to five minutes. The Commission may discontinue public forum after a reasonable time if a large number of speakers wish to appear. In accordance with ORS 183.335(13), no comments may be presented on Rule Adoption items for which public comment periods have closed.

**P. Informational Item: Selected DEQ Toxics Reduction Efforts**

The purpose of this item is to brief the Commission on two of the Department's current toxics reduction efforts, and to provide a starting point for future Commission discussions concerning toxics reduction initiatives.

*Greg Pettit, Kevin Masterson and David Livengood, Department of Environmental Quality*

**Q. Informational Item: Pharmaceutical Take Back Program**

The purpose of this item is to inform the Commission on results of the Oregon Pharmaceutical Take Back Stakeholder Group facilitated by the Oregon Association of Clean Water Agencies (ACWA). The Stakeholder Group recommendations request pharmaceutical manufacturers and over-the-counter drug companies to voluntarily devise and implement a convenient and effective program for consumers to dispose of unwanted medicines.

*Wendy Wiles and Abby Boudouris, Department of Environmental Quality, Janet Gillaspie, Association of Clean Water Agencies, Tom Penpraze, City of Corvallis*

**R. Informational Item: Preliminary 2009 Legislative Agenda**

Every two years, state agencies must develop legislative concepts and budget policy packages as part of the legislative and budget development process. The Strategic Planning discussion at the October 2007 Commission meeting began development of the 2009 Legislative Agenda. Greg Aldrich will inform the Commission of ideas DEQ programs have been discussing since October as the Department prepares to develop firm legislative concepts and budget policy packages in early 2008. This information will allow Commissioners to provide guidance to staff as the development process continues into 2008.

*Greg Aldrich and Program Administrators, Department of Environmental Quality*

**S. Informational Item: Commissioner Reports**

**Adjourn**

---

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

---

*Future Environmental Quality Commission meeting dates include:*

February 21 - 22, 2008  
April 24 - 25, 2008  
June 19 - 20, 2008  
August 21 - 22, 2008  
October 23 - 24, 2008  
December 11 - 12, 2008

## Agenda Notes

**Staff Reports:** Staff reports for each item on this agenda can be viewed and printed from DEQ's Web site at <http://www.deq.state.or.us/about/eqc/eqc.htm>. To request a particular staff report be sent to you in the mail, contact the EQC Assistant, Department of Environmental Quality, Director's Office, 811 SW Sixth Avenue, Portland, Oregon 97204; telephone 503-229-5990, toll-free 1-800-452-4011 extension 5990, or 503-229-6993 (TTY). Please specify the agenda item letter when requesting reports. If special physical, language or other accommodations are needed for this meeting, please advise the EQC Assistant as soon as possible, but at least 48 hours in advance of the meeting.

**Public Forum:** The Commission will provide time in the meeting during the late morning of Friday, December 14, for members of the public to speak to the Commission. Individuals wishing to speak to the Commission must sign a request form at the meeting and limit presentations to five minutes. The Commission may discontinue the public forum after a reasonable time if a large number of speakers wish to appear. In accordance with ORS 183.335(13), no comments may be presented on Rule Adoption items for which public comment periods have closed.

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

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

### **Lynn Hampton, Chair**

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

### **Ken Williamson, Commissioner**

Ken Williamson is head of the School of Chemical, Biological and Environmental Engineering at Oregon State University. He received his B.S. and M.S. at Oregon State University and his Ph.D. at Stanford University. Commissioner Williamson was appointed to the EQC in February 2004 and reappointed in May, 2007. He lives in Corvallis. He represents the EQC on the Oregon Watershed Enhancement Board (OWEB).

**Judy Uherbelau, Commissioner**

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

**Donalda Dodson, Commissioner**

Donalda Dodson is currently Interim Executive Director of the Oregon Child Development Coalition. Previously, she served as Administrator of the Department of Human Services Office of Family Health and as Manager of the Maternal/Child Health Program at the Marion County Health Department. Donalda has a Bachelor of Science degree in nursing and a master's degree in public health. She has chaired or served on nearly a dozen public health committees and task forces and expresses a strong interest in bringing environmental issues into the public health arena. Commissioner Dodson was appointed to the EQC in August of 2005 and reappointed in July of 2007. She resides in Salem.

**Bill Blosser, Vice Chair**

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

**Dick Pedersen, Deputy Director  
Department of Environmental Quality**

---

811 SW Sixth Avenue, Portland, OR 97204-1390  
Telephone: (503) 229-5696 Toll Free in Oregon: (800) 452-4011  
TTY: (503) 229-6993 Fax: (503) 229-6124  
E-mail: [deq.info@deq.state.or.us](mailto:deq.info@deq.state.or.us)

Wendy Simons, Assistant to the Commission  
Telephone: (503) 229-5301

**EQC Meeting Agenda**  
**Thursday, December 13 and Friday, December 14, 2007**  
**DEQ Headquarters, Room EQC-A**  
**811 SW 6th**  
**Portland, Oregon**

**Thursday, December 13--Regular Meeting**

Time	Item	Topic	Presenter/Status	Background
8:30 15 min	A	Preliminary Commission Business: Adoption of Minutes of the October 18 – 19, 2007 Meeting		Routine
8:45 15 min	B	Informational Item: Update on the Status of the Umatilla Chemical Agent Disposal Facility (UMCDF)	Joni Hammond and Rich Duval	Routine—the facility is destroying a new group of weapons. GASP lawsuit.
9:00 45 min	C	Informational Item: Director's Dialogue	Dick Pedersen	
9:45 20 min	D	Action Item: New Director Selection Criteria and Appointment of Acting Director	Twyla Lawson, DAS and Kerri Nelson	
10:05 30 min	E	Public Comment on Criteria for New Director Selection		This item satisfies our legal requirements to notice the public that there is an opportunity to comment on hiring criteria for the next director.
10:35 10 min	F	Action Item: Adopt Criteria for New Director Selection	Chairwoman Hampton	
10:45 15 min		Break		
11:00 30 min	G	Action Item: Pollution Control Tax Credit Considerations	Maggie Vandehey	The EQC will consider staff recommendations and decide whether or not to certify tax credit applications.
11:30 30 min	H	Informational Item: Align Tank Rules with Federal Regulations, Improve Existing Rules	Wendy Wiles	Inform commissioners before they are asked to make decision on rule in Feb 2008
12:00 90 min		Working Lunch – Executive Session		

Time	Item	Topic	Presenter/Status	Background
1:30 120 min	I	Action Item: 2008-09 Rulemaking Agenda	Larry McAllister and Program Administrators  (includes 15 minute break)	Review of the two year Rulemaking Agenda. This is an opportunity for commissioners to let us know how they want to be involved in rulemakings.
3:30 45 min	J	Informational Item: Update on Internal Strategic Directions Measures	Kerri Nelson and Karen Whisler	Commitment from EQC Involvement Report.
4:15 30 min	K	EQC Recognition of Outgoing Director, Stephanie Hallock	Commissioners	
4:45		End of First Day		

**Evening: Dinner with EQC and Stephanie Hallock**

**Friday, December 14--Regular Meeting**

Time	Item	Topic	Presenter/Status	Background
9:00 15 min	L	Introduction to Topics for the Day	Dick Pedersen	
9:15 45 min	M	Informational Item: Oregon's Actions to Address Climate Change	Andy Ginsburg, David Van't Hof	Follow up to Strategic Planning discussion in October.
10:00 15 min		Break		
10:15 60 min	N	Informational Item: Life Cycle Analysis and New Directions in DEQ's Solid Waste Program	David Allaway, Loretta Pickerell	Follow up to Strategic Planning discussion in October. Waste reduction was identified as a priority by commissioners
11:15 45 min	O	Public Forum		Regular public forum
12:00 60 min		Lunch		
1:00 45 min	P	Informational Item: Selected DEQ Toxics Reduction Efforts	Kevin Masterson, David Livengood	Follow up to Strategic Planning discussion in October
1:45 30 min	Q	Informational Item: Pharmaceutical Take Back Program	Abby Boudourjs, Janet Gillaspie (ACWA), Tom Penpraze (City of Corvallis)	The commissioners expressed a desire to follow through with such a program
2:15 60 min	R	Informational Item: Preliminary 2009 Legislative Agenda	Greg Aldrich and Program Administrators	What we know from the divisions so far about preliminary legislative concepts and policy packages.
3:15 15 min	S	Informational Item: Commissioner Reports	Commission members	
3:30		Adjourn		

Minutes are not final until approved by the Commission.

**Oregon Environmental Quality Commission  
Minutes of the Three Hundred Fortieth Meeting  
October 17, 18 and 19, 2007**

Oregon Convention Center  
Room A-106  
777 NE Martin Luther King Jr. Blvd.  
Portland, Oregon

All Commissioners were present for the meeting.

**Wednesday, October 17—Regular meeting began at 8:30**

**A. Preliminary Commission Business: Adoption of Minutes of the August 16, 2007 Meeting**

The Commission reviewed and amended the draft minutes of the August 16, 2007, Commission meeting. Commissioner Blosser moved and Commissioner Williamson seconded that the minutes be adopted as amended. The motion carried unanimously.

**Informational Item: Director's Dialogue**

Stephanie Hallock discussed current events and issues involving the Department.

**B. Rule Adoption: Clarification of Proposed Orders in Contested Enforcement Cases**

The Environmental Quality Commission (EQC) asked the Department of Environmental Quality (DEQ) to improve the clarity and completeness of contested case appeals coming before the EQC. Additionally, DEQ regulations governing the appeals process (Division 11) needed updating, clarification, and correction of an error in order to make the contested case process more effective. The Department recommended rule changes to accomplish these goals. Commissioner Blosser moved, and Commissioner Williamson seconded a motion to adopt the proposed rules and rule amendments as presented in the DEQ staff report, Attachment A.

**C. Rule Adoption: Oregon Air Contaminant Discharge Permit Fee Increase**

The Air Contaminant Discharge Permit (ACDP) program contributes to the prevention of air pollution and helps reduce the number of unhealthy air days and the risks from air toxics. For example, the ACDP program limits the amount of pollution through permit requirements and prevents pollution through technical assistance. Oregon's ACDP program is part of Oregon's federally approved State Implementation Plan (SIP) to achieve national air quality standards. The Department proposed increases to ACDP fees as needed to effectively protect Oregon's air quality. Commissioner Uherbelau moved, and Commissioner Dodson seconded a motion to: 1) Determine that the increased fees in the proposed rule as presented in Attachment A are



necessary to cover the reasonable indirect and direct costs of implementing Oregon's Air Contaminant Discharge Permit program; and 2) Amend OAR 340-216-0020 Table 2 as presented in Attachment A to increase Oregon's Air Contaminant Discharge Permit fees by 20 percent, except that Table 2, Part 1., Initial Permitting Application Fees: a., Short Term Activity ACDP is corrected to show \$250.00-\$300.00 instead of \$2,500.00-\$3,000.00. The motion carried unanimously.

**D. Adoption of Air Quality Permit Program Streamlining and Updates**

Controlling the amount of pollution from industrial facilities through the Air Permitting program is an important part of the Department of Environmental Quality's strategy to maintain clean air. Air permits ensure that existing industrial facilities comply with state and federal pollution emission standards and require new facilities to have pollution controls to protect air quality. The program helps reduce the number of unhealthy air days and reduces risk from air toxics through timely and up-to-date permits, inspections and by assisting facilities in complying with the law. The DEQ recommended a rulemaking package to clarify, simplify and correct Air Permitting rules while maintaining equivalent environmental protection and stringency. The recommended changes further streamline and better align the rules with requirements under the Federal Clean Air Act.

Commissioner Williamson moved, and Commissioner Dodson seconded the motion to adopt the proposed rule amendments and repeals in OAR chapter 340, Divisions 200, 208, 209, 214, 216, 218, 228, 230, 232, 234 and 236 as presented in Appendix A, amending the State Implementation Plan. The motion carried unanimously.

**E. Rule Adoption: Asbestos Abatement Notification Filing Fee Increase**

Asbestos is a hazardous air pollutant, a known carcinogen. There is no known safe level of exposure. DEQ regulates the abatement and disposal of asbestos-containing materials from any public or private building involving demolition, renovation, repair, construction and maintenance activities. The DEQ's asbestos program protects public health and the environment by reducing the amount of asbestos in the air.

The 2007 Oregon Legislature approved an increase in the Asbestos Abatement Notification Filing Fees. In accordance with the legislative action, the Department recommended a fee increase to the Commission to allow DEQ to maintain existing staff levels in the program and add one position to provide additional technical assistance and public education about the dangers posed by improper asbestos removal. Commissioner Blosser moved, and Commissioner Dodson seconded that the Environmental Quality Commission amend Oregon Administrative Rule 340-248-0260(1)(a) as presented in Attachment A of the DEQ staff report with an effective date of December 1, 2007. The motion carried unanimously.

**F. Commissioners' Reports**

Commissioner Uherbelau noted that the Commission and the Department should be more proactive in recognizing good things that people do for the environment. She distributed a handout describing recent actions of the Southern Oregon University Sustainability Council, comprised of administrative staff, faculty and students. Among their activities this year is the student-initiated "Green Tag" project. The SOU student body voted to add about \$10 per term per student to student activity fees to offset both electricity and natural gas energy usage,

offsetting 100% of gas and electric costs. DEQ Director Stephanie Hallock will write a letter of appreciation and commendation to the University students.

Commissioner Blosser spoke recently to the Cement Kiln Recycling Coalition, which is comprised of kiln operators licensed to burn hazardous material. A representative of the Ash Grove Cement Company attended, and commented to Commissioner Blosser that what they have to do in Oregon is actually helpful to the company, preparing them for possible future national requirements.

Commissioner Williamson represents the EQC and the DEQ as a member of the Oregon Watershed Enhancement Board (OWEB). OWEB's budget increased this year and the Board is looking to fund several significant projects around the state. Commissioner Williamson and other OWEB members are looking at three projects, including one or two on the Willamette River to reduce the water temperature to enhance salmonid habitats, another to work with a coalition on the Deschutes River related to water conservation, and also a biomass project with juniper removal in eastern Oregon to provide more water into streams. OWEB will invest approximately \$20 million over several biennia. This year OWEB also funded significant research including a project related to removing small dams. The project would include monitoring during the process of removing three outmoded dams that were placed into service during the 1940s and 1950s. The research will help determine how to keep costs down and to minimize adverse environmental impacts.

#### **G. Public Forum**

The Commission provided members of the public an opportunity to speak to the Commission on environmental issues that were not part of the agenda, or for which there was otherwise no public testimony at this meeting.

- Dick Ponzi of Ponzi Vineyards, which is adjacent to the Lakeside Landfill, asked the EQC to deny the renewal of Lakeside Landfill's operating permit. Mr. Ponzi provided written notes to the Commission.
- Art Kamp, a resident in the neighborhood of Lakeside Landfill, alerted the Environmental Quality Commission that they intend to propose a rule change to the Commission that would require a Land Use Compatibility Statement with every permit. He further commented that the dump is old and inadequate, and is contaminating the river. He asked DEQ to take six specific actions, which are described in his written testimony.
- Emily Bartha, representing the Sierra Club, provided written comment and testified in favor of including the conservation community in the implementation of Senate Bill 737. She commented of the Sierra Club's concern about mixing zones, and pollution discharge permits that should require permit holders to reduce toxic discharge if feasible. The Sierra Club supports stricter water quality standards to protect the health of Oregonians who eat fish.
- Paul Jaussi, representing Friends of the Tualatin River National Wildlife Refuge, expressed concern regarding a serious threat to the health and safety of refuge habitat from the Lakeside Reclamation Landfill. The Friends urge action now to ensure that contaminated groundwater and leachate from the landfill do not enter the Tualatin River. The Friends of the Refuge strongly support prevention as the

only course of action, by rigorously enforcing existing laws and by requiring the landfill owner to install a leachate recovery system and divert contaminated groundwater away from the river.

- Elizabeth Thoresen, a neighbor of Lakeside dump, asked the Commission for assistance in helping to protect the community, the Tualatin River and the Federal Wildlife Refuge by: allowing only non-toxic materials to be deposited in the dump; implementing restrictions of accepted materials to strictly non-recyclables; requiring a gas collection system and cover for the waste; requiring noise suppression, berms and buffers; and utilizing unannounced inspections and unexpected water testing.
- John Frederick, a resident of the neighborhood surrounding the Grabhorn (Lakeside) Landfill, was unable to attend in person, but provided written materials urging DEQ and the county to form a working relationship to address all issues concerning the community and the landfill, and to revisit the mistakes made and find acceptable solutions.

#### **H. Informational Item: Oregon Fish and Shellfish Consumption Rate Project Update**

DEQ, the Confederated Tribes of the Umatilla Indian Reservation and the Environmental Protection Agency are partnering in reviewing the fish and shellfish consumption rate used in Oregon's water quality standards, which are set with the goal of protecting people's health from the effects of water pollution. The three governments presented an update to the Environmental Quality Commission on the project's status.

Lauri Aunan, Administrator of the Water Quality Division at DEQ, gave a brief overview of the project and the schedule. She reviewed the six key factors in developing a recommended fish consumption rate and described the process being used to consider the factors.

Mike Gearheard of the Environmental Protection Agency presented a refresher on the role of fish consumption rates in water quality standards.

Rick George of the Confederated Tribes of the Umatilla Indian Reservation (CTUIR) highlighted the importance of the fish consumption rate to Tribes. He noted that tribal peoples' consumption is higher than the general population, ranging up to 389 grams per day. The CTUIR advocate for a higher rate and water quality standards that support fish that are healthy and safe to eat.

The Human Health Focus Group, a sub-committee of the overall Fish Consumption Rate Project, reported on their findings. All members of the focus group were present: Jordan Palmeri, Department of Environmental Quality; Dave McBride, Washington State Department of Health; Sue MacMillan, URS Corporation; Joan Rothlein, PhD, Oregon Health and Science University; Ken Kauffman, Oregon Department of Human Services; Elanine Faustman, PhD, University of Washington; and Pat Cirone, PhD, Retired Federal Scientist.

Invited panels offered comment and perspectives to the Commission:

- Tribal panel: Cheryle Kennedy, Confederated Tribes of the Grande Ronde; Armand Minthorn, Confederated Tribes of the Umatilla Indian Reservation; Don

Gentry, Klamath Tribes; Roy Spino, Confederated Tribes of Warm Springs; and Tom Downey, Siletz Tribe. Each tribal representative spoke. All stressed the importance of fish to the subsistence and culture of tribal people. Each urged and supported an increase in the Fish Consumption Rate, and cleaning up contaminated sites.

- Environmental panel: Cheyenne Chapman, Oregon Center for Environmental Health; and Brent Foster, Columbia Riverkeeper. Ms. Chapman and Mr. Foster commented that this is really a “correction” and that existing toxicity in fish is a significant health risk. Both support an increased fish consumption rate, and favor a precautionary assessment over “how much harm should we allow?”
- Llewelyn Matthews of Northwest Pulp and Paper, and Ralph Sapperstein of the Oregon Water Quality Coalition both support an increased fish consumption rate, and urge the EQC and DEQ to make any actions risk-based, starting with chemicals presenting the greatest risk and urged the commission not to change standards on metals that cause an insignificant problem, and exercise caution against unintended and prohibitive costs.
- Oregon Association of Clean Water Agencies; League of Oregon Cities; and Special Districts Association of Oregon, represented by Dave Kliever of the City of Portland Bureau of Environmental Services; Bob Baumgartner of Clean Water Services; Willie Tiffany with the League of Oregon Cities; and Amanda Rich of the Special Districts Association of Oregon. The representatives presented written testimony and acknowledged the need to increase the fish consumption rate; however, they noted the need to work together to incorporate the toxic reduction efforts outlined in SB737, and to focus on the highest priority toxics.

The Environmental Quality Commissioners engaged in active dialogue with presenters and commenters, and noted that they look forward to future work group meetings and the final report in October of 2008.

---

**Thursday, October 18—Regular meeting began at 9:30**

The Commission held an Executive Session from 8:30 am to 9:30 am to consult with counsel concerning legal rights and duties regarding current or potential litigation against the DEQ.

**I. Discussion and Dialogue: DEQ Strategic Plan Check-In and Look to the Future**

DEQ is completing year 2 of a 5-year strategic plan. The EQC held a strategic planning discussion to assess and evaluate our progress on the 5-year strategic plan, deepen the EQC/DEQ working relationship, enhance the commission and DEQ's ability to work collaboratively on environmental issues, and examine current DEQ assignments and science to inform future strategic directions. The discussion focused on the over-arching question: "What are Oregon's environmental priorities and what role should DEQ play?"

A summary of the day-and-one-half discussion is attached to and included as part of these minutes.

**Director's Award for Excellence**

During a break in the strategic planning discussion, Director Stephanie Hallock and the Environmental Quality Commission presented the 2007 Director's Award for Excellence to Kevin Parrett for his outstanding performance as project manager of the McCormick and Baxter cleanup site, and many other accomplishments.

**The Commissioners joined the DEQ Director and Executive Management Team at 6:00 for a business dinner at the Porto Terra Restaurant on Thursday evening.**

Attendees were: EQC (Hampton, Blosser, Dodson, Uherbelau), DEQ (Hallock, Pedersen, Nelson, Hickman, Pettit, Hammond, Aunan, Oliphant) EPA (Miller)

Topics discussed included: State/EPA Relationship; Update on BLM Forest harvest plans; Process for hiring new Director; and Other business

Commissioners and EMT heard reflections from Elin Miller about State/EPA relationship and challenges in the future.

Director Hallock briefed Commission on proposed BLM Western Forest plan, controversies and implications. Director Hallock discussed urban/rural divide and forest harvest implications for water quality.

Group discussed challenges facing new Director and kinds of candidates we hope to attract. Elin Miller expressed EPA's support and desire to help in the process, if needed.

**Friday, October 18—Regular meeting begins at 9:30**

**J. Continuation of the strategic planning discussion.**

The EQC continued its strategic planning discussion from the previous day, with the purpose of assessing and evaluating our progress on the 5-year strategic plan, deepening the EQC/DEQ working relationship, enhancing the commission and DEQ's ability to work collaboratively on environmental issues, and examining current DEQ assignments

and science to inform future strategic directions. The discussion focused on the overarching question: "What are Oregon's environmental priorities and what role should DEQ play?"

A summary of the day-and-one-half discussion is attached to and included as part of these minutes.

**Adjourn**

---

## **Strategic Planning Discussion, October 2007 EQC Meeting**

### **Outline of Contents**

#### **I. Summary of the Discussion**

- A. What the Commission heard from the Community
  - 1. Key Issues
  - 2. Local Issues of concern
  - 3. Strategies
  - 4. Realities
  - 5. Timely issues, opportunities for action
- B. Program Ideas from the Commission

#### **II. Strategic Planning Discussion Notes (Main points by each speaker)**

- A. Stephanie Hallock, DEQ Director
  - B. Mike Carrier, Governor's Natural Resources advisor
  - C. Mark Reeve, former EQC chair
  - D. Sierra Club
  - E. Oregon Association of Clean Water Agencies (ACWA)
  - F. Northwest Environmental Defense Center (NEDC)
  - G. Oregon Environmental Council
  - H. Oregon Chemicals Policy Work Group
  - I. Oregon Business Association
  - J. EPA Region 10
  - K. DEQ Management Team
    - 1. Dick Pedersen, DEQ Deputy Director
    - 2. Greg Pettit, Lab Administrator
    - 3. DEQ Program and Regional Administrators
    - 4. Greg Aldrich, Government Relations Manager
  - L. Kevin Downing, AFSCME Local President
  - M. Response and Discussion by Commission
    - 1. Commissioners' Individual Thoughts
    - 2. Discussion among Commission members
    - 3. Questions from Commissioners for DEQ
-

## **I. Summary of the Discussion**

### **A. What the Commission heard from Community:**

#### **1. Key Issues:**

- Toxics
- Waste reduction
- Climate change
- Groundwater
- Water quality and supply

#### **2. Local issues of concern:**

- Willamette cleanup
- Columbia River water quality
- LNG terminals
- Landfills
- Large point sources
- Forestry practices

#### **3. Strategies:**

- Prevention - going to the source of the problem; education and outreach
- Emphasis on science - both monitoring and analysis; scientific expertise gives DEQ credibility; make more of DEQ's wealth of scientific information accessible to public
- Collaboration – DEQ must work across borders and with other agencies; no single agency or government body has full ability or authority to deal with most environmental problems
- Deal with problems comprehensively, especially toxics – pollutants cross media (air, land, water); deal with all toxics rather than one chemical and one facility at a time; water quality and supply are related
- Flexibility and relationship-building - DEQ will be a leader on some issues, an honest broker on others; having good community relationships will bring results, even in areas where DEQ's role is minor
- Compliance – regulations must be strictly enforced, yet DEQ must look for innovative ways to improve environmental performance, using regulation, incentives, prevention, and promotion of sustainable practices

#### **4. Realities:**

- DEQ's staff is committed to the mission, but resources are sometimes spread thin
- Public expectations exceed DEQ's mandate and resources, and are growing
- More data and scientific analysis are needed in order to meet emerging and future challenges, especially toxics reduction

#### **5. Timely issues, opportunities for action:**

- Governor's water initiative (2009 Legislative Session)
- Chemicals Policy Work Group's report (coming in 2008)
- BLM western district plan revision



## **B. Program ideas from the Commission:**

- Increase public communication about DEQ's activities, e.g. a monthly newspaper column
- Drug take-back program
- Require replacement of substandard woodstoves at sale of home
- Require testing of wells at sale of home, keep data in statewide databank
- Institutionalize innovation at DEQ, either with a person or office (examples for doing this might be the Economic Revitalization Team or the Clean Diesel Team)
- Peer-reviewed research program at the DEQ Lab
- Sister program overseas in China and/or India
- Groundwater injection to replenish aquifers
- Publish an "environmental manifesto" for the state of Oregon
- Information technology improvements at the agency (e.g., electronic permitting), perhaps funded through a surcharge on permits
- A bold, focused effort in one program area to reaffirm Oregon as an environmental leader, perhaps alternative energy

## **II. Strategic Planning Discussion Notes (Main points by each speaker)**

**A. Stephanie Hallock, DEQ Director**, opened the conversation with reflections on where the Department has been over the past few years, and challenges she sees for the future. Funding natural resources work will continue to be a challenge. Other challenges ahead are setting water standards, increasing the Department's capacity to perform critical work to improve water quality, taking on new work related to alternative energy and climate change, increasing the Department's monitoring capabilities, and addressing toxics.

## **B. Mike Carrier, Governor's Natural Resources advisor:**

1. The Governor is looking for someone of high caliber to be the next DEQ director. Someone who has a vision and can articulate it, and who understands the importance of the director in shaping agency culture.
2. Wants DEQ to be a strong collaborator with other natural resources agencies, a leader in setting direction and priorities.
3. Governor is considering a water initiative for the 2009 session, focusing on quality, supply, and conservation.
4. Important to work with other states and countries on environmental issues.
5. Asked to pick top 3 priorities from Stephanie's list: implementation and achievement of water quality standards, recharging aquifers, find a way to pay for the refurbishment of aging water and wastewater infrastructure

## **C. Mark Reeve, former EQC chair:**

1. Need to look at water issues comprehensively: DEQ needs to deal with non-point sources, but has limited resources to do it; severe effects of the snow pack drying up will dwarf small local projects.
2. Continue emphasis on science, with additional focus on toxicology. DEQ must evolve along with the science of environmental issues. Credibility on scientific front is critical for DEQ.

3. The world is more complicated today than when DEQ was formed, with many more actors involved. DEQ will gain credibility through scientific expertise.
4. Oregon can act on greenhouse gases, even though the issue stretches beyond our borders. DEQ can be an honest broker on this issue.
5. Renewable energy (wind, solar, wave) is an area where Oregon can retain its legacy as an environmental leader, if it is made a big priority. DEQ can play a role; it could be a very exciting effort.

#### **D. Sierra Club:**

##### **Christine Caurant and Ivan Maluski**

1. Willamette River cleanup is a very high priority for Sierra Club, in particular mixing zones.
2. Sierra Club would like to see higher water quality standards.
3. Toxic Monitoring program is key, and must include mixing zones. DEQ should keep point sources as a high priority because they are easiest to address, but Sierra Club welcomes efforts on non-point sources and can do a lot of outreach to help with non-point sources. The current permitting process is outdated, leaves public skeptical about DEQ's efforts and what the focus is – sometimes shielding industry from financial liability seems to be the main goal.
4. Sierra Club is very concerned about BLM and forest practices in general, particularly the BLM plan for the western district which they fear will result in lower water quality in Oregon due to an increase in logging, especially in riparian reserves.

#### **E. Oregon Association of Clean Water Agencies (ACWA):**

##### **Jim Hill and Janet Gillaspie**

1. Toxics reduction: DEQ needs to improve cross-media coordination on toxics, e.g. mercury (emitted into air, falls on ground, ends up in water). DEQ efforts under SB 737 on PBTs (Persistent Bio-accumulative Toxics) can draw upon other successful efforts across the nation, e.g. Washington DOE has a list of PBTs; a coordinated toxics reduction program should be integrated into all DEQ regulatory programs, as well as monitoring, education and outreach, and grants programs
2. Working to reduce toxics at the source is better than trying to remove them from the environment later – e.g. more stringent product standards (mercury, flame retardants) and drug take-back programs
3. Meeting water needs in the future: improve water recycling in an environmentally effective way, reuse clean water for many purposes rather than use fresh water
4. Stormwater is another opportunity to make improvements – ACWA members promote green infrastructure, want DEQ to make it a priority as well
5. In response to questions about drug take-back programs: ACWA is working on this concept statewide, but some localities are also working on it (e.g. Newburg long-term care facility); ACWA has sponsored a study of the legal issues involved with prescriptions and controlled substances

#### **F. Northwest Environmental Defense Center (NEDC):**

##### **Mark Riskedahl**

1. Emerging from period of Republican leadership – NEDQ believes this has had devastating effects on DEQ, for instance in emphasis on customer service at expense of public interest. An example is mercury reduction efforts at Boardman plant. He contrasted Boardman to Ash

Grove facility, which has committed resources to reducing emissions before they are required to. PGE is dragging their feet on BART process (best available retrofit technology): he encourages DEQ to take a hard look at what PGE is doing.

2. Encourages the formation of a citizens' task force to assist in search for next director, including public members without a financial stake in the choice.

## **G. Oregon Environmental Council**

### **Andrea Durbin**

1. DEQ needs to do more about global warming – make sure greenhouse gas reduction goals are met, set clean car standards
2. DEQ needs to educate the public about current initiatives to reduce greenhouse gases and pollution, as well as begin new initiatives
3. Step up efforts in toxics reductions - many health problems are attributed to toxics, cancer and asthma for instance (OR ranks very high for several cancers); develop aggressive, comprehensive reduction plans – SB737 and Willamette efforts are steps in the right direction
4. Shift toxics efforts to prevention, although Portland is very toxic and needs continued attention to cleanup
5. Clean up rivers – Willamette needs attention, but the rest of the state shouldn't be neglected because other rivers are out of compliance as well
6. Improve DEQ's work and role - more emphasis on monitoring, outreach and engagement, integration and cross-media efforts; implement air toxics rules; permit system is outdated, should be electronic; improve information dissemination; programs are under funded – engage stakeholders to increase funding, remembering that the public is DEQ's constituency.

## **H. Oregon Chemicals Policy Work Group:**

**Lisa Arkin and Dona Hippert, Oregon Toxics Alliance**

**Sara Wright, Oregon Physicians for Social Responsibility**

**Renee Hackenmiller-Paradis, Oregon Environmental Council**

**Cheyenne Chapman and Jane Harris, Oregon Center for Environmental Health**

1. Need to shift efforts toward a comprehensive, preventative, multi-agency approach to reduce toxics entering the environment as well as removing toxics and reducing toxic exposure (as specified in DEQ's Strategic Directions); focus on production, work on more than one chemical at a time.
2. Need more understanding of long-term impacts; new evidence shows serious impacts from long-term low level exposure to toxic chemicals
3. The Chemicals Policy Work Group's "Call for Safer Chemicals" document (in process) will call for using safer chemicals, and focusing on protecting consumers, workers, and the environment
4. In response to request to bring to the EQC's attention areas where the EQC has statutory authority to make rules on toxics reduction: Benzene is a current example - gas station owners are given information about reduction strategies, rules will come in the future

## **I. Oregon Business Association:**

**Lisa Adatto**

1. Create an office within DEQ concentrating on innovation in order to keep up with the rapid pace of innovation in business, i.e. things that aren't addressed by the regulatory process and can get bogged down by it, like novel materials to make plastics, etc.

#### **J. EPA Region 10:**

##### **Elin Miller, Regional Administrator**

EPA Region 10 has recently drawn up a regional strategy document after surveying employees and other agencies. These are the highlights of the document.

1. Goals: A strong EPA (particularly concerned with succession planning); progress in these areas: core programs, tribal environments, sustainability, watersheds (especially Columbia River and Portland Harbor), energy and climate change
2. Strategies for achieving goals: people and teamwork, communication and dialogue, expecting excellence, willingness to take risks, professionalism and respect, integrity and honesty
3. Specifically with regard to Oregon: NPDES efforts are paying off; Oregon is a leader in TMDL and water quality trading; mixing zones and sewer overflows are outstanding issues; need to focus on improving water quality in every region of the state
4. In response to questions: EPA will rule on the California exemption on low emission vehicles by the end of the year; EPA will submit comments on the BLM western district plan in the next few weeks; EPA is interested in the issue of large fuel loads in forests leading to water pollution from forest fires; Miller couldn't comment on compliance schedules at this point

#### **K. Presentation by DEQ Management Team**

1. **Dick Pedersen, DEQ Deputy Director**, provided an overview of the agency's core work as well as information on how that work and the Oregon community have changed over time. He stressed the importance of investing in agency infrastructure, both business systems and information technology.

2. **Greg Pettit, Lab Administrator**, gave a presentation on the environmental monitoring and analysis performed by the DEQ lab and what it tells us about the environment.

DEQ programs have achieved large reductions over the past few decades in ambient concentrations of the major pollutants targeted by the Clean Air Act and Clean Water Act. However, as researchers gain knowledge about the harmful effects of various pollutants, and the ability to measure smaller concentrations, regulators at EPA and DEQ are setting more stringent targets for many pollutants, resulting in more communities in the state that do not meet water and air quality standards.

Another concern is that although Oregon achieved large improvements in water quality in the 1980s and 1990s, there are currently more streams in the state with declining water quality than streams with improving water quality. It is possible that Oregon could lose ground. Groundwater contamination is a growing problem as well, with a high percentage of wells showing contamination by nitrates, arsenic, and pesticides.

Looking forward, new challenges for the DEQ include dealing more comprehensively with toxics. For instance, very little data exists on emerging toxics such as flame retardants, pharmaceuticals, and personal care products, many of which are endocrine disruptors. Other challenges are climate change and changes in land use patterns as the population grows.

**3. DEQ Program and Regional Administrators** (each was asked to comment on two big issues they are hearing about from the community)

**Joni Hammond, Eastern Region Administrator:**

1. South Deschutes groundwater: This is an area of shallow porous soils and a growing population. DEQ has been acting as a facilitator between citizens and local governments as they struggle with local water quality problems, which demonstrates how important good relationships are in achieving results over time.
2. Perchlorate: The sources of perchlorate in local groundwater haven't been pinpointed, although it occurs naturally and is used in making explosives, matches, and some pesticides. DEQ has been working with the Departments of Health and Agriculture, as well as EPA and the Extension Service on this issue. DEQ has tried to let EPA take the lead, but the community has trust in DEQ and wants the agency to be more involved.

**Margaret Oliphant, acting Air Quality Administrator:**

1. Columbia River Gorge project: The project is underway, but faces many challenges because the various stakeholders (tribes, local cities, parks, environmental groups) have very different interests.
2. Public interest in permitting of large industrial sources: Concerned citizens and environmental groups question the efficacy of the permitting process. Dealing with public concerns takes a lot of staff time at DEQ, time that the agency tends to think would be more effective if it were focused on mobile sources.

**Nina DeConcini, Northwest Region Administrator:**

1. Lakeside Landfill: Many parties are concerned with this site, including several local governments and citizens, and they are demanding a high degree of speed and collaboration from DEQ.
  2. LNG facilities: This is a new issue for DEQ. There are many layers of government involved, and a lot of questions about DEQ's purview as far as permitting and regulation.
- (As a side note: Both of these cases are illustrations of how local communities often turn to DEQ when they are disappointed with a local land use decision.)

**Kerri Nelson, Western Region Administrator:**

1. Economic development in small communities often presents special environmental issues: An example is Coos Bay, whose port business has declined due to the decline in logging, and is now considering a proposal to create a deepwater port. Coos county is facing issues related to mining (methane from coal beds) and mineral processing (chromite sands are proposed to be mined near Bandon with separation done in Coos county, causing a dramatic increase in heavy truck traffic).
2. Logging payments: The end of logging payments means that some affected counties will have to cut back on local environmental efforts.

**Lauri Aunan, Water Quality Administrator:**

Governor's water initiative is an exciting prospect, and DEQ should be a leader in the effort, but continuing to meet commitments on core functions is a big concern (Water Quality is still short-staffed).

1. Permit program: Although non-point sources are where most contamination comes from (a report on this coming out later this year), the permit program focusing on point sources is very important to residents living near big facilities and to environmental groups. The Water Quality program is still working on permit program improvements promised in 2004, and on standards. There is also a lot of litigation in this area (DEQ pays \$37,000 per month in attorney fees to the Department of Justice).
2. Information technology: DEQ needs to move away from the paper permitting system (as Andrea Durbin from Oregon Environmental Council suggested this morning). The Department is still working on making data available electronically to staff and the public.

**Al Kiphut, Land Quality Administrator:**

1. Green chemistry initiatives: Some Land Quality and Laboratory staff are involved in the work of the Oregon Chemicals Policy Working Group, although this work raises issues of resource allotment within the agency. The Land Quality Division is also plugged into initiatives on toxics and children's health. These collaborative efforts are exciting, but staff time spent on them can be a drain on core work.
2. Waste reduction/prevention: Oregonians are disposing 43% more per capita than 12 years ago. David Allaway at DEQ is working on a plan for waste reduction (focusing on business packaging and consumer education), but the question arises of how far can DEQ go in pushing for public behavioral changes? DEQ is getting pressure from its own staff to do more.

**3. Greg Aldrich, Government Relations Manager:**

DEQ did very well in the 2007 Legislative Session, due to the change in majority, availability of General Fund moneys, and the strong favorable reputation of agency and its director. Major Legislative outcomes were the restoration of DEQ funding (most of our request was funded, with stakeholders also lobbying on our behalf) and increased funding for monitoring. Other big issues for DEQ this session included: the Agricultural Air quality bill, Title V program funding, the Bottle Bill, Water Quality fee increases, and Green House Gas reporting rules.

The 2006 change in legislative majority caught DEQ and others off-guard; by then the agency budget was already far along in the development process, and not able to fully respond to political changes. Looking to the future, political changes will likely lead environmental groups to ramp up their efforts and also their expectations next session. Generally, concern over toxics is growing at the Legislature. Public expectations of DEQ are also growing on several issues outside of the agency's core mandate. DEQ doesn't have the resources to do everything that everyone would like the agency to do, as well as all of its core work.

**L. Kevin Downing, AFSCME Local President:**

1. The union's mission is to enhance the capability of staff; employees would like to be seen as a resource, and believe that richer engagement will result in better work.
2. The Human Resources division has not been as much of a resource to the agency as it should be, a lot of turmoil there over the past several years
3. Many management initiatives have seemed half-hearted, not followed through
4. Incremental progress is being made, with special acknowledgement to Lauri Aunan for her work
5. Asked if he would add anything to the summary from Thursday, Downing said that he would like to see DEQ's commitment to "voluntary" programs strengthened – it's not easy to achieve environmental goals through regulation alone. However, it's difficult to get people to do things that cost them alone but benefit everyone.

## **M. Response and Discussion by Commission:**

### **1. Commissioners' Individual Thoughts:**

#### **Donalda Dodson, Commissioner:**

1. Human health – must keep that in mind as EQC's and DEQ's highest priority; it is embedded in the Strategic Directions
2. Economic balance must be kept in mind, for environment and consumer
3. Data analysis needed, for instance in waste management
4. Regulatory is one arm, preventive/proactive is one arm
5. DEQ needs to do good public relations about what it does, about its prevention efforts
6. Consumer education is necessary
7. Need good science as the basis of all other efforts

#### **Judy Uherbelau, Commissioner:**

1. Thanked Stephanie for her work as Director
2. EQC and DEQ should not get carried away after last successful session, as the economic good times may not continue – think about fallback points, how to maintain DEQ's efforts if recession happens
3. 2009 session is coming soon, and DEQ will be losing experienced leadership in Stephanie – don't make decisions in a rushed way, it will be good to have someone very prepared in place, keep that in mind when looking for leadership
4. Sometimes the EQC makes interim decisions too fast because it doesn't want to take the time to fully deal with the issue (ex. field burning). The EQC can better serve the state by facing issues head-on from the start
5. Communication – DEQ needs to educate the public better about environmental issues and about what the agency does, perhaps via a monthly column for the newspapers

#### **Bill Blosser, Vice Chairman:**

1. The EQC and DEQ should take a good look again at the 4 strategies: "promoting sustainable practices" is something DEQ must get better at doing, but this category of the Strategic Directions doesn't contain much that isn't already included in the air or water program – perhaps sustainability is an overarching principle or philosophical underpinning for all DEQ programs, rather than a separate Strategic Direction of its own?

2. EQC should come up with two or three things DEQ could do that would really make a difference, beyond EPA or Legislative direction; perhaps waste reduction or a drug take-back program
3. Toxics –DEQ should build a database on toxics and investigate what more the agency can do to reduce them in the environment
4. DEQ should work more extensively with universities

**Ken Williamson, Commissioner:**

General observations:

1. Sustainability should be right out in front as DEQ's number one priority; it does not fall under air/land/water programs, but is an important commitment – and sends a message to the public (e.g., EQC no longer using disposable water bottles)
2. There are a lot of things the EQC and DEQ don't have control over, but the agency must tackle the problems caused by them, e.g. non-point sources and forest fires, mercury from beyond our borders, global warming (CO<sub>2</sub> from Oregon is relatively small, yet Oregonians must make a big effort). On all of these fronts, EQC and DEQ have to lead.
3. As environmental regulations get point sources under better control, EQC and DEQ will increasingly be asked to take care of the needs of sensitive populations (e.g. people with asthma and chemical sensitivities, tribes, pregnant woman). As these populations come to the table, they will expect to be protected.
4. Old paradigms are now turned over, but society is still struggling with the results of the old ways of doing things:
  - “The best way to deal with water is to get it into a stream as soon as possible” – consequences show that this was a terrible idea;
  - “The best way to meet established environmental standards is to put the screws on point sources” - this assumption is built into how current programs protect the environment, but leaves out major sources of pollution;
  - “Energy is created by increasing supply, not by decreasing demand” – this strategy creates huge negative impacts for society;
  - “Getting rid of chaos is good, gaining control is good” – what the environment really needs is another 1964 flood (it would really help fish – more huge trees in streams, etc.; environmental catastrophe also helps the environmental community go forward with new initiatives);
  - “CO<sub>2</sub> doesn't matter”
5. Economic growth helps environmental progress in many respects (DEQ budget is up because the economy is up), but can Oregon really protect the environment under continued economic and population growth? Only answer is sustainability, which must be the number one environmental priority. In order to avoid big sacrifices, new and clever solutions are called for, using people's ingenuity and ability to innovate (cleverness is free or cheap, a “mystical element” to people's faith in achieving sustainability).
6. Internationally agreed approach on CO<sub>2</sub> reduction is to divide up the wedge on the graph between the trajectory following current trends and the trajectory toward where scientists think society should be heading, assigning everyone their piece to deal with. This divides up and spreads out the responsibility.
7. The legislature in Oregon is very quick to give away tax incentives, very reluctant to tax – EQC ought to make use of this.



8. “Suck it up factor” – can Americans live the western lifestyle sustainably? The answer is perhaps “yes” for us, but not if China and India do as well. No one wants to really talk about this, but somehow Americans will have to change our lifestyle. The middle class in U.S. has had stagnant wages for decades, which is part of this trend.

Things Williamson thinks DEQ ought to be doing:

1. Commit to improving information technology (perhaps a surcharge on all permits that come in)
2. Groundwater injection – need to work aggressively on putting it back in the ground, this would reduce water temperature and help salmon
3. Solid waste – try to recycle and reuse more; could do this relatively simply, and it’s very symbolic
4. Do whatever possible to push the drug take-back program idea
5. Develop legislation for replacement of old woodstoves upon sale of homes and mandatory well testing with results kept in statewide databank
6. Innovation on sustainability front – have a designated person to help this happen
7. A research program – a small but targeted, peer-reviewed program, not just monitoring; geared to supporting policy
8. A sister program with an environmental agency in India and China – it’s necessary to make changes in those nations in order to solve environmental problems

**Lynn Hampton, Chairwoman:**

1. She is interested in the “wedge approach” described by Williamson vs. clamping down only on point sources (they fear that everything will come back to them because they are easy to regulate and governments already have programs in place). Society shouldn’t reach environmental goals on the backs of a small group, especially with issues like global warming where Oregon citizens are a small part of the problem and will realize only small benefits from our actions. One solution is to share the knowledge Oregon agencies gain on CO2 and mercury reduction, so DEQ can tell Oregonians who are bearing the pain that their sacrifices are making a difference in emissions elsewhere.
2. Focus on both cleaning toxics up and reducing them.
3. Monitoring – society doesn’t always know what and how much pollution is in the environment, nor where pollution is coming from. It is absolutely necessary to know these things, and EQC and DEQ should mine our political capital to get more funding to accomplish it. Increased monitoring creates more political capital and credibility in the end, as it enables DEQ to be the impartial voice on issues.
4. Non-point sources: EQC and DEQ need to recapture the ability to regulate pollution on farms and forests. The laws can be, and need to be, changed – regulators aren’t addressing the problems if programs don’t affect non-point sources, especially with regard to toxics and particulates. The legislature is crazy about tax incentives – EQC and DEQ should investigate whether tax incentives are an avenue to spread the costs of environmental protection beyond point sources.

**2. Discussion among Commission members:**

- Merit of tax incentives as a general approach: politically popular, but reduce the pie of public moneys, which ultimately could be unhelpful to environmental efforts.
- Groundwater: EQC and DEQ need to discuss overall goals. Should the aim be to protect it in pristine condition, at all costs? What should it be used for? Should programs aim to increase supply? Injecting groundwater could be a good solution, or could be short-sighted: usable fresh water is already scarce, and may become more so with global warming. Have to be careful: combination of two sources of water could produce precipitates. EQC's only legal interface with the issue is underground storage. The city of Albany is planning to inject its entire wastewater effluent underground – the EQC should get involved in this effort.
- Institutionalizing innovation at DEQ: Want to spread the effort, rather than isolating it in the director's office. Possible models for doing this might be the Economic Revitalization Team or the Clean Diesel Team. Needs to be part of one person's job to be the focal point for innovation, a coordinator of efforts and information.
- EQC's leadership role: An environmental manifesto by the EQC is a good idea. It needs to be a forward-looking document, but the Commission would like outgoing Director Hallock's parting thoughts. It would be useful for the EQC to get together and think about how to further their goals and directions, what their best role is, how to support DEQ and be proactive, how to act more cohesively as a group. Would like to see the EQC develop a sense of its own leadership; most of group's actions are to fulfill EQC's responsibilities under the Clean Water Act, etc. – don't use the authority Oregon has on its own to act independently. Would like to get together with other state's environmental commissions (WA doesn't have a peer body; ID does, CA has many).
- Building overseas connections: Need to take care to avoid appearance of arrogance; other countries are just as environmentally aware and knowledgeable, but have different priorities right now (e.g., economic growth predominates over environmental concerns). U.S. citizens can't keep consuming as we are, and expect others to live smaller. Oregonians can show visitors from other countries that it's possible to have a healthy environment and economic growth at the same time, which will be evident by observation alone without proselytizing.

### **3. Q& A with Director Hallock:**

EQC: Could DEQ have a \$5 surcharge on all permits for IT? Being in "dark ages" is not acceptable anymore.

A (Hallock): Nothing inherently prohibitive, she thinks. Many in regulated community would be supportive. However, the issue is not just money; the state has a hard time hiring people with IT expertise.

EQC: Absolutely necessary to put DEQ's monitoring data out there as we are accumulating it. DEQ has millions of dollars worth of environmental data. If the data isn't translated, however, and the spatial and temporal distribution isn't right, the data isn't useful.

A: DEQ needs "translators" to put the information out there in a way that is understandable to the public. Communication and data functions are becoming more and more important – the public is hearing about global warming and drought, etc., and they come to DEQ for answers whether or not DEQ has them (and whether the agency has anything to do with these issues). DEQ needs to convince the agency's funders that it is valuable to invest in DEQ's ability to perform communication and data functions. Legislators seem more open to funding this kind of work than they have been in the past.

EQC: DHS has skills and knowledge in messaging and communicating, they do this all the time (it will be especially good to collaborate with them on toxics).

EQC: Wants DEQ to look into these questions:

1. Is there any way to significantly ramp up recycling in this state?
2. Is there anything we can do on take-back requirements, using DEQ's existing authority?
3. Regarding woodstoves and well-testing – what can DEQ do right now throughout the state, not just in non-attainment areas?

EQC: California is doing so many innovative things right now, how much contact does the agency have with them?

A: California has several levels, e.g. regional water boards, air agencies, Cal EPA; Oregon's Governor is working with theirs, which is the most effective level of interaction recently.



**Umatilla Chemical Demilitarization Program  
Status Update  
Environmental Quality Commission  
December 13-14, 2007  
(Agenda Item B)**

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

**VX Operations:**

The UMCDF completed the GB-to-VX changeover and began VX operations October 29, 2007, with the processing of VX rockets, almost a week ahead of the previously reported scheduled start date, November 2, 2007. In addition, the UMCDF began draining VX spray tanks on November 20, 2007.

VX munitions/bulk items comprise 7.7 percent of the total Umatilla stockpile (by agent weight). As of November 22, 2007, the UMCDF had destroyed approximately 2,600 VX rockets and nearly 24,000 pounds of VX nerve agent. This represents approximately:

- 18 percent of the VX rockets
- 4 percent of the VX munitions
- 3 percent of the VX agent

Processing of VX-contaminated secondary wastes in the Metal Parts Furnace was initiated November 17, 2007. The UMCDF intends to process all VX-contaminated secondary wastes as they are generated, rather than transporting them to permitted storage in J-Block.

**GB Operations:**

GB munitions/bulk items processing has been completed. GB munitions/bulk items comprised 21.4 percent of the total Umatilla stockpile (by agent weight). The UMCDF destroyed over 155,500 munitions and bulk containers filled with over 2 million pounds of GB nerve agent. This represented:

- 70.5 percent of all Umatilla munitions and bulk containers
- 21.4 percent of the original Umatilla stockpile (by agent weight)

Treatment of the remaining GB-contaminated wastes in permitted storage will not resume until the multiagent monitoring design changes specific to GB monitoring have been completed.

**Cumulative Operations:**

As of November 21, 2007, 42 percent of all Umatilla munitions and bulk containers and 21.7 percent of the original Umatilla stockpile (by agent weight) had been destroyed.

**Other UMCDF Chemical Demilitarization Program News**

**GASP I Judgment:** There remain two EQC determinations as to whether the UMCDF utilizes the best available technology (BAT) and has no major adverse impact on public health and the environment as it pertains to:

- Destruction of mustard ton containers containing significantly higher mercury levels than identified in the original Application,
- The role of the Pollution Abatement System Carbon Filter System (PFS).

These are scheduled to be available for public comment by March 2008, and before the EQC by June 2008.

**New GASP/GAP Lawsuit:** On November 13, 2007, the Government Accountability Project (GAP), on behalf of GASP et al., filed another lawsuit against the EQC and the Department in Multnomah County Circuit Court challenging the EQC's recent BAT determination for secondary wastes and what it termed as failure to complete the remaining two BAT determinations (described above) in a timely manner.

**UMCDF PMR Activity:**

<b>SUBMITTALS</b>			
<b>PMR#</b>	<b>Title</b>	<b>Submitted</b>	
UMCDF-07-036-LIC(1N)	LIC1 A&I Matrices Update	10/9/2007	
UMCDF-07-022-WAP(2TA)	Alternate Decontamination Solution and WAP Update (EA 2192)	10/22/2007	
UMCDF-07-037-MISC(1N)	Redline Annual Update-CHB/LAB/HVAC	10/29/2007	
<b>APPROVALS/ACCEPTANCES</b>			
<b>PMR#</b>	<b>Title</b>	<b>Approved</b>	
UMCDF-07-024-CONT(2)	Annual Review and Revision of the Contingency Plan	10/4/2007	
UMCDF-07-036-LIC(1N)	LIC1 A&I Matrices Update	10/9/2007	
UMCDF-07-037-MISC(1N)	Redline Annual Update-CHB/LAB/HVAC	10/29/2007	
<b>TAR#</b>	<b>Title</b>	<b>Approved</b>	
UMCDF-07-022-WAP(2TA)	Alternate Decontamination Solution and WAP Update (EA 2192)	10/23/07	
<b>CLASS 3 PMRs - DRAFT PERMIT LANGUAGE ISSUED/PUBLIC COMMENT PERIOD OPENED</b>			
<b>PMR#</b>	<b>Title</b>	<b>PMR Complete</b>	<b>Public Comment Period Close</b>
UMCDF-06-010-CMP(3)	Comprehensive Monitoring Plan (CMP) Sampling and Analysis Plan (SAP) Changes	11/13/07	01/07/08
UMCDF-07-006-DFS(3)	Minimum Temperature Limit Change on the DFS	12/05/07	01/21/08

**IN PROCESS:** The following PMRs are under Department review (includes PMR 07-022, which was also submitted during this period).

PMR#	Title	Received	Public Comment Period Close	Target Decision Date
UMCDF-05-034-WAST(3)	Deletion of the DUN and Addition of the CMS	10/25/05	12/24/05*	TBD
UMCDF-06-010-CMP(3)	CMP SAP Changes	05/16/06	07/15/06*	02/07/08
UMCDF-07-005-MISC(2)	Condition II.M-Liability Insurance Requirement Changes	01/30/07	04/02/07	10/01/08
UMCDF-07-006-DFS(3TA)	Minimum Temperature Limit Change on the DFS	01/16/07	03/19/07	02/18/08
UMCDF-07-014-MPF(2)	MPF DAL Low-Temperature Monitoring Changes	02/20/07	04/23/07	04/28/08
UMCDF-07-032-HVC(2TA)	MDB HVC Carbon Filter Change-out	08/07/07	10/06/07	12/05/07
UMCDF-07-033-MPF(2)	VX Agent Trial Burn Plans	07/31/07	09/29/07	12/07/07

\*Indicates close of initial (permittee) public comment period.

### Significant Events at Other Demilitarization Facilities

#### **Anniston Chemical Agent Disposal Facility (ANCDF), Alabama**

The ANCDF continues to process VX 155 mm artillery projectiles. As of November 19, 2007, the ANCDF has processed 60,196 VX projectiles (out of the original 139,581) and 36,906 gallons of VX.

#### **Newport Chemical Agent Disposal Facility (NECDF), Indiana**

As of November 20, 2007, the NECDF has neutralized 1,765,784 pounds (approximately 209,223 gallons) of VX. This represents approximately 69 percent of the original Newport stockpile. The U.S. has received credit for destroying 1,377,325 pounds of the Newport stockpile under the CWC treaty.

#### **Pine Bluff Chemical Agent Disposal Facility (PBCDF), Arkansas**

The PBCDF began VX operations in October 2007 with the processing of VX rockets. As of November 5, 2007, the PBCDF has processed 1,612 VX rockets and 12,938 pounds of VX.

The PBCDF has begun shipping mustard samples for off-post laboratory analysis. The samples will be used to verify the physical and chemical characteristics of the mustard agent stored in its stockpile ton containers.

#### **Tooele Chemical Agent Disposal Facility (TOCDF), Utah**

As of September 16, 2007, TOCDF has processed 2,017 ton containers containing HD mustard (blister) agent, 29 percent of the HD ton containers stored at the Deseret Chemical Depot. Processing continues to be limited to only those ton containers that show a concentration of 1 ppm or less of mercury contamination. Work continues on designing a carbon filtration system that will provide sufficient flue gas mercury removal to allow the processing of mustard that has been determined to have mercury concentrations in excess of 1 ppm.

On November 1, 2007, the TOCDF began destroying the first of more than 50,000 mustard-filled 155mm projectiles. Because of agent solidification during storage, the agent will not be drained from the projectiles before conveying them to the Metal Parts Furnace. Instead, a new burster-well punch system, which will clear a path for furnace heat into the projectile agent cavity, will facilitate combustion of liquid and solid agent contents. In addition, some of the explosive components inadvertently bonded to the interior components of the projectiles during storage. To address this, a new remotely-operated burster rotating adapter device has been developed to rotate the “stuck” explosive components (the bursters) to allow removal.

**Pueblo Chemical Agent Destruction Pilot Plant (PCAPP), Colorado**

**Blue Grass Chemical Agent Destruction Pilot Plant (BGCAPP), Kentucky**

Neutralization followed by biotreatment will be used to destroy the Pueblo 2,611-ton stockpile, while neutralization followed by supercritical water oxidation will be used to destroy the Blue Grass 523-ton stockpile.

Road and fencing work has been completed at Pueblo, the access control point is shortly to open, and work continues on site grading and the early phases of construction. Site preparation and utility installation also continues at the Blue Grass stockpile site. Chemical agent operations are slated to begin 2015.

## **Chemical Weapons Destruction Program Glossary of Acronyms and Terms of Art**

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

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

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

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

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

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

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,



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

**Date:** December 12, 2007  
**To:** Environmental Quality Commission  
**From:** Dick Pedersen, Deputy Director  
**Subject:** Agenda Item C, Director's Dialogue  
December 13-14, 2007 EQC Meeting

**Orientation for this EQC meeting**

Before we begin with an update, I'd like to give you a little background and orientation about this month's meeting. As we planned this meeting, our strategic planning discussion at October's session was fresh in our minds. The October meeting was an exciting opportunity for our executive management team to hear from you on our strategic directions. Our team agreed that we would continue this discussion about our strategic priorities through several of the agenda items that we will cover today and tomorrow.

Much of today's agenda focuses on routine business. Tomorrow's agenda however is dedicated to presentations about programs directly relating to our strategic initiatives, climate change, toxics reduction and waste reduction and sustainability. And, as you requested, our staff and representatives from the Association of Clean Water Agencies will give you an update on the pharmaceutical take-back program.

In October we heard from you that you were interested in taking action to improve Oregon's environment. Tomorrow's presentations we hope will provide you with more information and food for thought on directions you might take.

---

**Staffing update**

Since the commission last met, our director, Stephanie Hallock and two of our senior managers have retired and another is moving to another agency. These departures are difficult for us; we are losing excellent, valuable, talented, and dedicated people. However, it is also a time of opportunity for others to step up to the plate to help out in the interim.

With that intro in mind, we have named a new, permanent, land quality administrator, Wendy Wiles. She takes over from Al Kiphut who retired at the end of November. Lauri Aunan, our water quality administrator, announced in late November that she accepted a job with the Oregon Water Enhancement Board. Lauri has done an exceptional job in water quality, and we will really miss her. Neil Mullane, the northwest region's water

quality permit manager has agreed to step into the water quality administrator's position in the interim. Joni Hammond, our eastern region administrator, is moving to the deputy administrator role, also on an interim basis, with Mitch Wolgamott stepping in for her as interim eastern region administrator. Wendy Simons, whom you met at the last commission meeting, has moved into the commission coordinator role, replacing Helen Lottridge.

### **DEQ Storm Response**

DEQ emergency response and communications staff worked diligently to help with statewide storm recovery efforts after the early December storms that severely affected so many Oregon communities. Our new land quality administrator, Wendy Wiles, spent the first week in her new job participating in daily emergency response meetings with the governor's office.

Most of the Department's storm response activity centers around managing storm debris. Northwest Region Solid Waste staff have been working closely with facilities in Tillamook, Clatsop, and Columbia counties to get out information and to monitor the situation. Late in the week, DEQ issued an order allowing temporary storage of debris and waiving fees for temporary debris disposal sites in Columbia and several coastal counties. (See Attachment A.) We have issued two waivers. According to staff in the field, waste and debris management is flowing well. Our Northwest Region complaints manager, Rob Vance, looked into reports of waste being dumped into uncontrolled piles in the Vernonia area, which he did not find to be the case. He spent Tuesday in Vernonia and was able to confirm that waste is moving quickly through a temporary DEQ-approved site south of City Hall, and debris disposal in general is very organized in terms of proper separation of debris and responsible burning. He plans to visit the coast as soon as he is able to get past the mudslide on Highway 30. The Department will continue to investigate any reports of problems with debris disposal.

One of DEQ's responsibilities related to debris management is to help ensure that harmful substances, such as asbestos, are not inadvertently disposed of in an open-burn and that hazardous household materials are safely disposed. Luckily we have had very few reports of hazardous materials spills. Northwest Region's Solid Waste program provided assistance in collecting household hazardous waste for four days in Vernonia until the county's contractor could take over, collecting 78 drums of waste at a cost of between \$20,000 and \$24,000. To keep citizens and local governments updated on our efforts, our communications staff created a Web information center, and issued a fact sheet and a number of news releases to provide information about safe debris disposal. Attachment B contains examples of DEQ news releases about storm debris.

The storm significantly impacted the several permitted wastewater treatment systems on Oregon's north coast. Almost all the plants lost primary power, however for all but two plants the back up power successfully came on line and stayed on line. In some cases emergency generators were trucked around to various pump stations enabling plant operators to pump down wet wells and keep sewage flowing to the treatment plants. Two

facilities sustained significant impact: Fish Hawk Lake's polishing lagoon was breached by creek erosion and the treatment facility in Vernonia was under water. The cities of Tillamook and Astoria also experienced significant hydraulic inflows. The Department is planning a review of all north coast facilities in coming weeks to evaluate overflow reports and to determine how well operations plans held up during the storm. Finally, we want to examine the effluent quality conditions before, during and after the event. A list of affected wastewater treatment facilities is in Attachment C.

### **Lakeside Landfill Permits**

We have an update today on Lakeside Landfill. As you may recall, Lakeside has two permits, a solid waste and a composting permit.

**Solid Waste Permit.** Lakeside's solid waste permit expires January 30, 2008. DEQ has drafted a renewal/closure permit that requires Lakeside to begin closure July 1, 2009, which is the date that Metro's Enhanced Waste Recovery ordinance becomes enforceable.

Metro's ordinance requires landfills operating in the metro region, or having a designated facility agreement with Metro, as Lakeside does, take only processed waste, or install a Materials Recovery Facility.

DEQ's draft permit not only requires Lakeside to close the landfill, but also clarifies and restricts the type of waste that can be accepted for disposal, requires gas monitoring at the perimeter of the landfill and around onsite structures, specifies waste acceptance procedures, requires further evaluation of and regular maintenance of the innovative tree cover system, and requires installation of an additional groundwater monitoring well.

The public notice period for the DEQ draft permit began Thursday, November 29, 2007, and runs through January 15, 2008. A public hearing is scheduled January 8, 2008. DEQ intends to issue the renewal/closure permit by January 30, 2008.

By the end of December we will have the results of a remedial investigation of the leachate from the landfill. The investigation will provide data to scientifically assess whether the leachate is harming aquatic life in the Tualatin River. The results of the study, and continued monitoring for methane gas, will inform our determination about the current landfill cover, and what additional permit and post-closure requirements may be needed.

**Lakeside Compost Permit:** Lakeside's current composting permit expires March 30, 2008 and DEQ has determined that Lakeside's compost permit renewal application is complete.

Next year, when new rules for composting operations are adopted, DEQ will revisit Lakeside's composting permit, including the Land Use Compatibility Statement (LUCS) from Washington County for the composting operation. In the interim, Lakeside's current permit will remain in force. We have been responding to odor complaints, and will continue to work with Lakeside to make sure the facility is in compliance and implementing best management practices.

#### **Owens Corning update**

Owens Corning proposes to manufacture rigid extruded polystyrene (XPS) foam insulation in Gresham. The foam manufacturing process uses and emits a blend of up to five hydrofluorocarbon (HFC) compounds. DEQ projects that Owens Corning emissions of HFCs will be in the range of 180 to 300 tons per year.

The department held a public information meeting about the Owens Corning permit application on November 1. About 14 members of the public attended, as well as several representatives of Owens Corning. Owens Corning representatives talked about the lessons learned from their first two permit applications; their commitment to this facility and its benefits for Gresham and Oregon, and their commitment to reducing greenhouse gas emissions from their facilities. A question-and-answer session followed, with most questions addressed to the Owens Corning representatives. The public comment period for the permit runs from November 12 through December 21, and a hearing is scheduled today.

#### **Union Pacific Railyard Update**

On November 1, DEQ and the Public Health Division of the Department of Human Services held a public meeting to provide information on the current status of investigations at the Union Pacific railyard in Eugene. Investigations of releases of petroleum products and chlorinated solvents have been ongoing for a number of years. The public raised a number of concerns at the meeting, including potential vapor intrusion into homes and concern about asbestos from prior abatement efforts at the site. To most effectively ensure that community concerns are being addressed, the city of Eugene proposed a citizen advisory group (CAG) to act as a clearinghouse for issues about the site. DEQ is supporting this group with information and coordination.

DEQ continues to partner with DHS Public Health to ensure we understand the potential health risks posed by vapor intrusion and implement effective protection strategies for those homes threatened. DEQ also is working with Lane Regional Air Protection Agency (LRAPA, the asbestos regulator for Lane County) and local legislators to make sure that asbestos concerns are adequately addressed. DEQ and LRAPA will jointly review previous abatement documentation and order a site inspection to determine if there are any ongoing asbestos-related issues at the site. The results of the asbestos survey will be made available to the CAG and interested local citizens and legislators. Max Rosenberg, DEQ Western Region Cleanup Manager, is the contact for more information.

#### **Liquid Natural Gas (LNG)**

A number of companies have proposed siting LNG facilities in Oregon over the last few years. Three of the proposed facilities are now moving forward in the permitting process: the Bradwood Landing project on the Columbia River between Astoria and Clatskanie, the Oregon LNG project on the Columbia River in Warrenton, and the Jordan Cove project on the North Spit of Coos Bay. While the Federal Energy Regulatory Commission (FERC) has authority under the 2005 Energy Policy Act to regulate and site LNG facilities, DEQ and other state agencies must issue state permits and approvals before the facilities can operate in Oregon.

The proposed Bradwood Landing facility and pipeline are farthest along in the permitting process. DEQ has started the process of developing a Clean Water Act 401 Certification for the project to ensure that the Army Corps' permitting of dredging activities associated with the facility and pipeline will meet state water quality standards. The proposed project will also need DEQ permits for air emissions, wastewater discharges and stormwater control. However, applications for these permits require a Land Use Compatibility Statement (LUCS) from Clatsop County. The County Commission is considering the Clatsop County Planning Commission's decision to approve the project and has not yet given its own approval for the proposed facility.

#### **Columbia River Total Dissolved Gas Waiver Adaptive Management Update**

As directed by the EQC at the time it renewed the Columbia River total dissolved gas (TDG) waiver in June 2007, the Department, the Oregon Department of Fish and Wildlife, and the Washington Department of Ecology are working with the TMDL adaptive management team (AMT) to address the TDG TMDL implementation and spill issues for fish passage. The adaptive management team acts as a consultative group to provide technical information to the States of Oregon and Washington for implementation of the TDG TMDL. Detailed information on the adaptive management team process, including the notes from the first AMT meeting from October 25 in Portland can be found at the Department of Ecology's website:

[http://www.ecy.wa.gov/programs/wq/tmdl/columbia\\_rvr/columbia\\_tdg.html](http://www.ecy.wa.gov/programs/wq/tmdl/columbia_rvr/columbia_tdg.html)

During the first AMT meeting on October 25, the Department provided team members with background information on the TDG TMDLs and a framework for how the AMT will function.

At the next TDG AMT meeting, team members will have the opportunity to provide comments on the TDG literature review. At this meeting, the AMT will also discuss 115 percent TDG forebay limits and effects on spill and fish passage.

The Department has set a goal of making a decision by April 2008 on the need for 115 percent TDG limits in the forebay and whether forebay monitors should be relocated. This decision will follow a 30-day public comment period beginning in February 2008. This is an ambitious timetable, but final decisions on forebay monitors will not be completed prior to the early March 10-day spill period for Spring Creek Hatchery at Bonneville Dam or for the start of the system wide spill season that begins April 1. Fish

passage spill from McNary to Bonneville dams begins April 1 and ends August 31. Any changes to the TDG limit in the forebay or to the location of the forebay TDG monitors will require action from both the states of Oregon and Washington.

The next meeting of the TDG AMT is scheduled this morning (December 13) at the National Marine Fisheries Service in Portland.

### **Upcoming in January 2008: Performance Partnership Planning between DEQ and EPA**

DEQ will kick off its biennial Performance Partnership Agreement negotiations with EPA Region 10 in January. The Performance Partnership Agreement establishes the work agreement between DEQ and EPA Region 10 for several environmental programs delegated to the state for implementation. Program-specific work plans are documented in the agreement for each of these federally delegated programs, including:

- DEQ's water programs under the federal Clean Water Act (Sections 105, 196, 319) and the Safe Drinking Water Act (our Underground Injection Control program);
- DEQ's Air Program under the Clean Air Act (Section 105); and
- DEQ's Hazardous Waste Program under the federal Resource Conservation and Recovery Act.

Performance Partnership Agreements were established under the National Environmental Performance Partnership System, an initiative between EPA and the Environmental Council of the States, to provide greater flexibility as well as accountability between states and EPA. The Performance Partnership Agreement process is intended to provide *joint* planning between EPA and the state to achieve better coordination to address environmental priorities.

DEQ and Region 10 have transitioned to a Performance Partnership Grant, which not only reduces the administrative burden associated with submitting individual grant packages, but also provides states the flexibility to direct resources to the state's highest environmental priorities. We have not chosen to move funding from one program to another in past Performance Partnership Grants, and at this time don't anticipate doing so for the 2009-2011 biennium.

The agreement will cover state fiscal years 2009 and 2010, with implementation beginning July 1, 2008 and ending June 30, 2009. DEQ will complete negotiations by early April, and will provide an update to you at the June 2008 meeting.

### **E-Waste Recycling Update**

Implementation of the E-Waste Bill (HB 2626) is well underway.

- **New staff on board.** The department has hired three staff, a project lead and two technical specialists, to launch and manage the statewide recycling program. All began work in October, picking up on groundwork laid by existing staff. Kathy Kiwala is project lead.



- **Work group is making progress.** An advisory work group that includes stakeholders representing manufacturers, retailers, recyclers, collectors, local governments, environmental organizations, and non-profit reuse operations began monthly meetings in October to discuss program implementation details such as manufacturer registration, environmental management practices, reuse options, and minimum service standards.
- **Environmental management practices subcommittee.** A subcommittee of work group members and additional interested parties has met several times to discuss environmental management practices, which will serve as recommended practices for collection and recycling operations. Several issues, such as reuse, due diligence on downstream recycling, and the scope and nature of the environmental management practices are providing lively discussion. As intended by the Legislature, the department plans to implement the initial e-waste recycling program without rulemaking.
- **Manufacturer registration.** A manufacturer registration process, database, and materials have been developed, and manufacturer registration opened on Oct. 15<sup>th</sup> as scheduled. The manufacturers and brands of all covered electronic devices sold in Oregon after January 1, 2008, must registered with the agency.
- **Managed services contractor.** Staff is working with the Department of Administrative Services to prepare an RFP for the selection of a managed services contractor to run the state-sponsored, manufacturer-funded collection and recycling system. The RFP is projected to be released in January 2008, with the goal of an operational statewide recycling program by January 1, 2009.

#### **Bottle Bill Task Force Update**

Last session's Bottle Bill (Senate Bill 707) established a Bottle Bill Task Force to examine whether further modifications to Oregon's Bottle Bill are warranted, and is studying collection and refund issues such as establishing redemption centers, expanding beverages covered, increasing the deposit, using unredeemed deposits, and adding handling fees. The task force will submit a report, including any recommended legislation, to the legislature by November 2008.

The governor and the legislature appointed the 9-member task force in October and met for the first time on November 9<sup>th</sup>. DEQ's Peter Spendelow presented a history of Oregon's Bottle Bill, and described how British Columbia, Maine, and California are implementing similar legislation. John Anderson of Container Recovery Inc. (CRINC), a major beverage container recycler, described how his company is preparing to implement SB 707, and suggested using redemption centers. The task force discussed the redemption center concept at its December 11<sup>th</sup> meeting. Bob Danko is DEQ's lead. The legislative administrator is staffing the task force.

#### **Update on Union Negotiations**

DEQ's represented staff are members of AFSCME, the American Federation of State, County and Municipal Employees. The majority of the AFSCME local tables ratified their contracts. DEQ's local, 3336, is one of four local tables that did not. The others are Office of Emergency Management, Oregon Liquor Control Commission and the State

Fire Marshall. The failure to ratify has led to mediation talks, the first of which was held on November 21, the second on December 7, and the final one today (December 13).

#### **Air Toxics Science Advisory Committee Appointments**

The air toxics rules adopted by the Commission in October 2003 established a standing technical committee, called the Air Toxics Science Advisory Committee (ATSAC), to offer scientific advice on the air toxics program. In accordance with the rules, I am requesting Commission concurrence on outgoing Director Stephanie Hallock's re-appointments of five of the current members of ATSAC and on the appointment of one new member. Brief bio-sketches of the members and terms of appointment are in Attachment D.

ATSAC has provided valuable advice on the ambient air quality goals for the Oregon air toxics program, called "ambient benchmark concentrations" (ABCs), and is currently working with air quality staff on guidance for implementing the air toxics program. As required by the Oregon Air Toxics Program rules, the Department is currently working, with ATSAC's assistance, to prioritize geographic areas of the state based on their estimated level of risk from air toxics. In February, DEQ will select the highest priority area for air toxics reduction planning, and later in 2008 we will begin a stakeholder process to develop a risk reduction plan for the selected area. ATSAC likely will be called upon to provide technical advice during the development of this plan.

#### **Field Burning Funding Request**

As you directed, we prepared a funding proposal for consideration in the February 2008 session for field burning technical assessments. These assessments were requested to enable you to determine if the number of acres burned could be reduced or if burning should be temporarily prohibited. We also submitted the funding request to the December Interim Joint Ways and Means Committee for review prior to the February session. In mid-November, the Governor's Office instructed us to withdraw the proposal. While the governor supports the work and the funding, he has no formal opportunity to make a budget request in the February session. He had hoped to advocate for this proposal with legislative leaders, but there are other key priorities he must pursue and he is unable to add other items to his list.

We are reviewing our remaining options for funding the technical assessments. We had hoped to obtain state General Fund and hire third party experts who would provide the most credible information for all parties. Instead, we may have to partner with other agencies that could potentially fund some of the assessments. In the meantime, the Oregon Toxics Alliance, the American Lung Association and the Western Environmental Law Center continue to actively engage with stakeholders and pursue legislative and legal options.

At your October meeting, you requested a history of field burning regulation in Oregon and information on field burning regulations in the surrounding states of Washington, Idaho and California. That report is in Attachment E.

### **Columbia River Gorge Air Quality**

As requested, we are drafting a briefing memo for you on the status of the Columbia Gorge Air Quality Project, and you will receive it within the next month or so. The memo will cover the recent "Science Day" event in the Gorge and the key conclusions in the science report. In summary, the project scientists found that visibility is improving despite increasing growth pressures, that there is no single dominant source responsible for haze, and that a number of collective actions will be needed to achieve ongoing air quality improvement in the Gorge. The memo will also describe an upcoming "Policy Day" event - planned for February / March 2008 - where we will present a draft air quality strategy for the scenic area. Finally, the memo will address your questions about "uncontrollable sources" affecting the Gorge (including the influence of natural sources such as wildfires and volcanic activity), adoption of the next regional haze plan, the upcoming BART determination for PGE Boardman, and your role in each process.

**Attachments:**

- A. December 7, 2007 Emergency Order
  - B. DEQ storm debris news releases
  - C. List of Affected Wastewater Treatment Facilities
  - D. Oregon's Air Toxics Science Advisory Committee (ATSAC)
  - E. Report: Willamette Valley Open Field Burning History and Field Burning Regulations in Neighboring States
-

**EMERGENCY ORDER**  
**December 7, 2007**

Pursuant to the authorization provided to me by the Governor's Delegation of Emergency Authority dated December 7, 2007 (attached), I waive the requirements in OAR 340-093-0060 for a land use compatibility statement and OAR 340-097-0120(2)(d)(A) for fees for Solid Waste Letter Authorizations to be issued for the establishment of temporary solid waste disposal sites to expedite management of storm debris and protect public health, safety, and the environment. A copy of this order is being provided to the Governor's Natural Resources Office and the Environmental Quality Commission, and written reports concerning the nature and basis of this order and the permits affected will be provided to both.

Signed by

Joan Stevens-Schwenger  
Acting Director, Oregon Department of Environmental Quality

---

**DELEGATION OF EMERGENCY AUTHORITY PURSUANT TO  
ORS 401.035**

On December 3, 2007, I issued Executive Order 07- 24 declaring a state of emergency in all areas of the state affected by the severe winter storm, winds and resulting flooding. I am informed by the Department of Environmental Quality (DEQ) that debris removal efforts in affected areas are inhibited by certain state permitting requirements. Based on the information I have received from DEQ and Oregon Emergency Management, in accordance with my authority under ORS 401.065(2), I find that strict compliance with certain DEQ rules would prevent, hinder or delay mitigation of the effects of this emergency.

Therefore, pursuant to ORS 401.035, I delegate to the Director of DEQ, the authority conferred under ORS 401.065(2) to issue emergency orders as needed in order to temporarily suspend such specific DEQ rules as the Director determines to be necessary in order to expedite DEQ approved operations in response to the storm damage and to protect public health, safety and the environment during those operations.

The Director of DEQ shall consult with the Governor's Natural Resources Office prior to issuing any order temporarily suspending a DEQ rule pursuant to the authority provided in this order. The Director of DEQ shall provide a written report to the Governor's Natural Resources Office and to the Environmental Quality Commission concerning the nature and basis of any order issued pursuant to this order.

The authority delegated by this order will automatically terminate January 31, 2008, unless otherwise extended or terminated by supplemental order.

Done at Salem, Oregon, this \_\_\_\_\_ day of December, 2007.

---

Theodore R. Kulongoski  
GOVERNOR

ATTEST:

---

Bill Bradbury  
SECRETARY OF STATE

# News Release

For release: December 5, 2007

**Contacts:**

Tiffany Yelton, Solid Waste Program, Portland 503-229-5049 or 503-720-7472. (cell)

Marcia Danab, Communications and Outreach, Portland, 503-229-6488

## DEQ Recommends Caution When Disposing of Storm Debris

*Avoid burning that will create air pollution health problems; separate hazardous materials for proper disposal*

Oregon residents affected by the recent severe winter storm should use proper methods for disposing of storm and flood debris, including separating hazardous materials and not burning garbage, state environmental officials said today.

The Oregon Department of Environmental Quality (DEQ) is coordinating with affected counties to set up storm debris collection sites. The City of Vernonia has set up a collection site for all debris with a separate area for hazardous waste across the street from Vernonia City Hall on Bridge St. Locations of other collection points will be announced soon and posted on the DEQ Web site at [www.deq.state.or.us](http://www.deq.state.or.us)

Separate debris for disposal into separate piles for vegetation (trees, branches, limbs); household trash (garbage, paper, food, etc.); household hazardous wastes (paints, cleaners, pesticides, solvents, oil, etc.); white goods (stoves, refrigerators, appliances); and other materials (trash, building matter, carpets, furniture, etc.).

"Burning storm and flood debris will create air pollution that will only add to the health problems and inconveniences caused by the storms," said DEQ Northwest Region Administrator Nina DeConcini. "Public agencies are making provisions to set up storm debris collection sites so waste materials can be disposed of properly."

Burning certain waste including rubber and plastics is prohibited. DEQ strongly recommends using alternatives to burning to protect human health from harmful fine particles and toxic air pollutants in smoke. Give priority to chipping or grinding wood waste and yard debris for reuse. DEQ will provide assistance to



State of Oregon  
Department of  
Environmental  
Quality

Communications &  
Outreach  
811 SW 6th Avenue  
Portland, OR 97204  
Phone: (503) 229-5696  
(800) 452-4011  
Fax: (503) 229-6762

find locations to use or store this chipped wood waste and yard debris.

If burning of any waste is determined to be necessary to protect human health, you must contact DEQ before burning to obtain proper burn permits. DEQ may determine that the site, the wastes and the need to burn are not warranted and will work with you to find alternatives to burning. For DEQ emergency burn permits, general debris disposal questions and complaints contact Robert Vance at 503-229-5600, 503-229-5393 or 800-452-4011. You also must contact local fire departments before burning.

Burning the following materials is illegal at any time, anywhere in Oregon:

- Asbestos
- Asphalt or industrial waste
- Automotive parts (including frames)
- Dead animals
- Plastic
- Rubber Products
- Tires
- Waste oil, petroleum treated and related materials
- Wet garbage and food waste
- Any material creating dense smoke or noxious odors

More information about Oregon's severe winter storm efforts is at [http://governor.oregon.gov/Gov/flood/main\\_1207.shtml](http://governor.oregon.gov/Gov/flood/main_1207.shtml)

# News Release

For release: December 6, 2007

**Contacts:**

Tiffany Yelton, Solid Waste Program, Portland 503-229-5049 or 503-720-7472.(cell)

Marcia Danab, Communications and Outreach, Portland, 503-229-6488



State of Oregon  
Department of  
Environmental  
Quality

Communications &  
Outreach  
811 SW 6th Avenue  
Portland, OR 97204  
Phone: (503) 229-5696  
(800) 452-4011  
Fax: (503) 229-6762

## DEQ Has Information on What to do with Storm Debris

*Avoid burning that will create air pollution health problems;  
separate hazardous materials for proper disposal*

Oregon residents can dispose of storm debris at several local solid waste facilities and special debris collection sites. Information about disposal options is available at the Oregon Department of Environmental Quality (DEQ) Web site at [www.deq.state.or.us](http://www.deq.state.or.us) or by contacting Robert Vance at 503-229-5600, 503-229-5393 or 800-452-4011. Find more information about Oregon's severe winter storm efforts on the Governor's Web site at [www.governor.oregon.gov](http://www.governor.oregon.gov)

Local debris collection sites are listed below by county. DEQ is coordinating with affected counties to set up other storm debris collection sites and will post updates on the Web site.

DEQ urges residents to use proper methods for disposing of storm debris while taking care to separate hazardous materials and not burn these materials.

Separate debris for disposal into separate piles for vegetation (trees, branches, limbs); household trash (garbage, paper, food, etc.); household hazardous wastes (paints, cleaners, pesticides, solvents, oil, etc.); white goods (stoves, refrigerators, appliances); and other materials (trash, building matter, carpets, furniture, etc.).

Burning certain waste including rubber and plastics is prohibited. DEQ strongly recommends not burning to protect human health from harmful fine particles and toxic air pollutants in smoke. Give priority to chipping or grinding wood waste and yard debris for reuse. DEQ will provide assistance to find locations to use or store this chipped wood waste and yard debris.

### Debris collection sites

#### Columbia County

**Vernonia Storm Debris and Hazardous Waste Collection Site**



Across the street from Vernonia City Hall on Bridge St.  
Operating during daylight hours

**Columbia County Transfer Station**

1601 Railroad  
St. Helens  
503-366-2613  
8 a.m to 5 p.m. daily  
Accepts wastes from nearby counties  
Household Hazardous Waste collection 8 a.m. to noon, last  
Saturday of the month

**Beaver Bark Compost Facility**

5400 West Lane Road  
Scappoose, OR  
8 a.m. to 4:30 p.m., Monday through Friday  
503-543-3000  
Accepts tree and yard debris; untreated, unpainted wood

**Tillamook County**

**Tillamook County Transfer Station**

1315 Ekloff Rd (off Tillamook River Rd, 3 miles south of the City  
of Tillamook).  
Tillamook  
8 a.m. to 4:30 p.m. daily  
503-842-4588 or 503-842-2431  
Operated by Don G. Averill Recycling, Inc.

**Manzanita Transfer Station**

34995 Necarney Rd (between Manzanita and Nehalem).  
Manzanita  
10 a.m. to 4 p.m. Thursday through Sunday  
503-368-7764  
Operated by CARTM  
[www.cartm.org](http://www.cartm.org)

**Pacific City Transfer Station**

38255 Brooten Rd (2 miles SE of Pacific City).  
10 a.m. to 4 p.m., Friday through Sunday  
503- 392-3438  
Operated by Nestucca Valley Recycling-Garbage Service

# News Release

For release: December 7, 2007

**Contacts:**

Tiffany Yelton, Solid Waste Program, Portland 503-229-5049 or 503-720-7472 (cell)

Marcia Danab, Communications and Outreach, Portland, 503-229-6488

## Clatsop Transfer Now Accepting Storm Debris

*Avoid burning that will create air pollution health problems*

Clatsop County residents can dispose of storm debris at Clatsop Transfer & Disposal, operated by Western Oregon Waste at 1790 Williamsport Road in Astoria.

The transfer station is open 8 a.m. to 4 p.m., Monday through Saturday.

Regular rates apply for collection services. Keep yard debris and wood separate from household waste. The facility will collect batteries at no charge. For more information and to order temporary boxes for cleanup call 503-861-0578.

Information about other disposal options for the counties affected by the recent severe storms is available at the Oregon Department of Environmental Quality (DEQ) Web site at [www.deq.state.or.us](http://www.deq.state.or.us) or by contacting Robert Vance at 503-229-5600, 503-229-5393 or 800-452-4011. Find more information about Oregon's severe winter storm recovery efforts on the Governor's Web site at [www.governor.oregon.gov](http://www.governor.oregon.gov)

DEQ urges residents not to burn. In addition, concerns about water supplies could impact fire response.

Burning certain waste including rubber and plastics is prohibited. DEQ strongly recommends not burning to protect human health from harmful fine particles and toxic air pollutants in smoke. Give priority to chipping or grinding wood waste and yard debris for reuse. DEQ will provide assistance to find locations to use or store this chipped wood waste and yard debris.

Burning the following materials is illegal at any time, anywhere in Oregon: Asbestos; asphalt or industrial waste; automotive parts (including frames); dead animals; plastic; tires and rubber products; waste oil and petroleum-treated materials; wet garbage and food waste; and any material creating dense smoke or



State of Oregon  
Department of  
Environmental  
Quality

**Communications & Outreach**

811 SW 6th Avenue

Portland, OR 97204

Phone: (503) 229-5696

(800) 452-4011

Fax: (503) 229-6762

noxious odors.

# Fact Sheet for local governments

## Disaster Debris Management from Winter Storm Emergencies

The purpose of this Department of Environmental Quality (DEQ) fact sheet is to advise County solid waste programs; solid waste facility operators; local emergency management agencies; local government public works, road and fire departments; and the Oregon Department of Transportation about the following storm debris management information:

- 1) DEQ's role in coordinating information and assisting local communities
- 2) Advice on disaster debris best management practices
- 3) DEQ approval for changes at permitted solid waste sites
- 4) How to obtain approval for temporary disaster debris sites

It is important for local disaster debris management to be done in a way that protects human health and the environment.

**Reimbursement by the federal government for costs incurred by public agencies in response to an emergency may be hampered if state and local agencies have not coordinated and communicated with DEQ on the location and handling of disaster debris.** Letting DEQ know where disaster debris can go in your area will help us let residents know where to take their wastes. DEQ will issue news releases to local media and put information on our Web site at [www.deq.state.or.us](http://www.deq.state.or.us)

### Best management practices

Where disaster debris is found:

- First priority is human health and safety. Only approach buildings and other debris areas if safe to do so.
- Sort as much debris on site as possible. Make removal of waste that will rot highest priority.
- Secure any containers of liquids, if safe to do so, to prevent further release. Contact Oregon Emergency Response System (OERS) if containers are discovered that may have breached and contents are unknown and secure area.
- The property owner may be able to provide information on the presence of asbestos containing material. **Take caution in disturbing asbestos containing material.** Keep this material damp, covered and isolated to prevent release of fibers.

- Use respiratory protection if handling suspected asbestos containing material.

### At debris collection sites

- Follow any applicable Emergency Operations Plan that addresses disaster debris management.
- Set up the site to provide surfaces where spills and releases can be contained. This can be done by providing berms around paved areas and closing off the storm drains and/or the use of liner. Mark areas for different types of debris. Cordon the site off with caution tape to control access, as appropriate.
- Waste that can decompose should be highest priority for removal to final disposal. This includes all food wastes, dead animals, and household garbage.
- Sort debris for better recovery and disposal. Keep clean wood (not treated or painted) and yard debris and fallen trees separate to facilitate grinding/chipping. The ground and chipped wood waste and yard/tree waste can be used on site for berms or ground cover, can go offsite for composting, or be burned in hog fuel boilers.
- Final disposal of residential and commercial demolition debris should go to approved landfills. It is best to sort the demolition debris at the site where it occurred if possible. The waste can be sorted into wood, metal, glass and other piles wastes. Some of the materials may be recyclable.
- Provide safe entrance and exiting from the disaster debris collection site for commercial haulers and private individuals. Having separate routes for commercial hauler's trucks and private individuals is best to prevent vehicle accidents and to provide safe areas for individuals to unload their waste.
- **Containers of hazardous materials, including household materials such as cleaners, paints and oils should be isolated and placed on spill containment if safe to do so.** See contact numbers below.



State of Oregon  
Department of  
Environmental  
Quality

Regional  
Environmental  
Solutions  
Northwest Region  
2020 SW 4<sup>th</sup> Avenue  
Suite 400  
Portland, OR 97201  
Phone: (503) 229-5263  
(800) 452-4011  
Fax: (503) 229-6945  
Contact: Tiffany Yelton  
(503) 229-229-5049  
[www.deq.state.or.us](http://www.deq.state.or.us)

Since hazardous materials require special handling, call Dave Kunz at 503-229-5336 for technical assistance or Oregon Emergency Response System (OERS) at 1-800-452-0311 for spill response, or contact local collection depots if one is available.

### **Get DEQ approval for disaster debris sites**

*For Existing Permitted Solid Waste Facilities Transfer Stations, Landfills, Material Recovery Facilities, Compost Facilities)*

Existing sites may need to make changes to their operations in response to a disaster. For sites in the Northwest Region (Multnomah, Clackamas, Washington, Columbia, Clatsop and Tillamook Counties), contact Tiffany Yelton 503-229-5049 within 48 hours of the following:

- Increasing the volume of acceptable wastes beyond any permit limits.
- Setting up areas for collection of wastes not allowed under the permit. This should only apply to those wastes that staff or contractors at the site can safely handle.
- Opening to the public or to haulers who do not usually use the site. Assure that the public has safe access to the site.
- Processing waste on site that is not part of normal operations.

### **Use alternatives to burning**

Burning certain waste including rubber and plastics is prohibited. DEQ strongly recommends using alternatives to burning to protect human health from harmful fine particles and toxic air pollutants in smoke. Give priority to chipping or grinding wood waste and yard debris for reuse. DEQ will provide assistance to find locations to use or store this chipped wood waste and yard debris.

If burning of any waste is determined to be necessary to protect human health, you must contact DEQ before burning to obtain proper burn permits. DEQ may determine that the site, the wastes and the need to burn are not warranted and will work with you to find alternatives to burning. For DEQ emergency burn permits Robert Vance at 503-229-5600 or 503-229-5393. You also must contact local fire departments prior to burning.

### **For temporary facilities**

- First priority should be given to large, flat, paved publicly owned sites for the temporary storage and sorting of disaster debris.

- Protect surface and ground water by providing a surface for working on, closing off access to stormwater drains and using physical barriers to prevent spills and releases from going off site.
- DEQ can issue temporary Solid Waste Letters of Authorization for temporary facilities with a very short turn around time. Having the letter of authorization helps the facility comply with state law which can impact the ability to get FEMA reimbursements. DEQ would need the following as soon as possible before the use of the site:
  - Written statement of permission from the land owner
  - If using a site for temporary storage that was used in previous emergencies or is identified in your emergency response plan, please note.
  - Location and size of the site on a map
  - Roads and road condition leading to and from the site
  - Distance to surface water including wetlands
  - Actions taken to prevent release of contaminants to surface and ground water.
  - Information on how the site will be operated: who is operating it, hours of operation, fees, security, emergency/spill response
  - Further information may be needed
  - If the site location is sensitive and the site can not be operated in a way that protects the environment, it will not be permitted
  - Fax to 503-229-6945, Attention Tiffany Yelton or e-mail to [yelton.tiffany@deq.state.or.us](mailto:yelton.tiffany@deq.state.or.us)

### **Sewage treatment spills**

In the event of a spill from sewage treatment plants, contact the facility's permit manager.



**DEQ Contacts for storm debris disposal**  
Call the DEQ toll free at 800-452-4011 and ask for the DEQ contact or call the direct lines listed below.

**Debris management, including setting up temporary handling sites and hazardous waste collection at those sites,** contact Tiffany Yelton 503-229-5049 or via cell at 503-720-7472. Maggie Conley is also available for assistance with hazardous waste collection at disaster debris sites by calling 503-780-2962.

**Hazardous materials management,** contact Dave Kunz at 503-229-5336. To report a hazardous spill, contact Oregon Emergency Management (OERS) at 1-800-452-0311 for spill response.

**Water quality issues, including treatment facilities,** contact the facility's permit manager, or the DEQ Water Quality Duty Officer, at 503-229-5263.

**Emergency burn permits, general questions or complaints,** contact Robert Vance, DEQ complaint officer, at 503-229-5600 or 503-229-5393.

**Alternative formats**

*Alternative formats (Braille, large type) of this document can be made available. Contact the DEQ Office of Communications & Outreach, Portland, at (503) 229-5696, or toll-free in Oregon at 1-800-452-4011, ext. 5696.*



**List of Affected Wastewater Treatment Facilities, Early December Storm**

Pacific City	Primary power went down - was on back up power.
Neskowin	Primary power went down - was on back up power.
Bay City	Primary power went down - was on back up power.
Cannon Beach	Primary power went down - was on back up power.
Seaside	Primary power lost for several days. Problems with secondary power resulted in loss of disinfection for about a day.
Warrenton	Several pump stations overflowed. Primary power went down - was on back up power.
Astoria	Primary power went down - was on back up power. Pump station #4 overflowing to Columbia River and they were discharging through CSO.
Garibaldi	Primary power went down - was on back up power.
Tillamook	Primary power went down - was on back up power, also experiencing flood related overflows.
Netarts-Oceanside Sanitary District	Okay
Nahelam Sanitary District	Primary power went down - was on back up power.
Clatskanie	Okay
Twinrocks	No overflows
Rockaway	No overflows
Vernonia	River over topped the lagoons. Pump station #1 was down.
Fish Hawk Lake	Polishing lagoon breached.
Arch Cape	Primary power went down - back up power failed. Sewage was discharging to creek.

## **Oregon's Air Toxics Science Advisory Committee (ATSAC)**

### **Background**

The air toxics rules adopted by the Commission in October 2003 established a standing technical committee called the Air Toxics Science Advisory Committee (ATSAC). The ATSAC, which provides scientific advice on the air toxics program, must include members with expertise in specific disciplines. These disciplines include toxicology, environmental science, risk assessment, epidemiology, public health and air pollution sciences. At its May 2004 meeting, the Commission concurred with the three year appointments of seven new ATSAC members, and the committee began meeting in September 2004.

The committee's first task was to help identify the priority air toxics of concern in Oregon and to provide advice on the ambient air quality goals for the air toxics program, called Ambient Benchmark Concentrations (ABCs). ABCs for 51 pollutants were adopted into rule by the Commission in October 2006. Following adoption, the ATSAC has been advising the Department as it has developed internal management directives for using the ABCs to implement the program. During that time two members resigned and were replaced.

The Department anticipates that during 2008 the ATSAC will assist with several technical issues:

- As required by the Oregon Air Toxics Program rules, the Department is currently working, with ATSAC's assistance, to prioritize geographic areas of the state based on their estimated level of risk from air toxics. The Department will be placing a notice in the Secretary of State's Bulletin announcing selection of the highest priority area for air toxics reduction planning in February and initiating that planning later in 2008. As the local stakeholder advisory Committee begins developing emissions reduction strategies, ATSAC will likely be called upon to provide technical advice. Local air toxics emissions reduction strategies may call for regulations on some source categories that would be considered by the Commission for adoption.
- ATSAC will be reviewing and advising on guidance for selecting controls of air toxics releases at Safety Net sources.
- One of ATSAC's required tasks is to evaluate the Oregon air toxics program's progress and the Department will be working with the committee to develop metrics and to carry out the evaluation.
- Late in 2008, ATSAC will begin its required review of the adopted Ambient Benchmark Concentrations and also consider whether additional benchmarks are needed.

### **Actions**

- There are now five members of ATSAC whose terms of appointment have expired. All of them are interested in continuing their service. The Department greatly appreciates the valuable advice they have provided and would very much like to re-appoint all of them for another 3 year term. However, in accordance with the rules,



and to maintain institutional memory and philosophy within the committee, we are proposing to stagger the terms of re-appointment for the five current members whose terms have expired.

### **ATSAC Membership**

#### **Dr. William Lambert (*public health*) re-appointment to May 2008**

Dr. Lambert has served as a member and Chairman of the ATSAC since its inception in 2004. He is an Associate Professor in the Department of Public Health and Preventive Medicine at Oregon Health and Science University (OHSU) and a faculty Scientist at the Center for Research on Occupational and Environmental Toxicology (CROET). From 1987-2000, he held faculty and research positions at the University of New Mexico School of Medicine. He received his Ph.D. from the Department of Epidemiology and Environmental Analysis at the University of California, Irvine and a BA degree from the Department of Biology at the University of California, Los Angeles.

His areas of expertise are air pollution epidemiology, exposure assessment, toxicology, and biostatistics. He has served on a number of advisory/regulatory committees, including Chair of the City of Albuquerque/Bernalillo County Air Quality Control Board, a principal author of state of the science reviews for the American Thoracic Society's Environmental Health Committee, and as member of the Childhood Lead Poisoning Taskforce, Children's Environmental Improvement Project, and Turning Point Environmental Health Initiative, in New Mexico. Currently, he is Chair of the Board of Directors for the Josiah Hill III Clinic in Portland. His community service has been recognized by several organizations, including the Clean Air Award of the American Lung Association of New Mexico and the Lifesaver Award of the New Mexico Chapter of the American Cancer Society.

#### **Dr. Brian Patterson (*risk assessment*) re-appointment to May 2010**

Dr. Patterson is currently employed as an environmental consultant with Golder Associates Incorporated in Lake Oswego, Oregon. He holds a bachelor's degree in Chemistry and a doctorate degree in Physical Chemistry. His areas of expertise include risk assessment, air dispersion modeling, air receptor modeling, environmental regulatory review and air quality permitting. Over his 17 year career as an environmental consultant, Dr. Patterson has completed numerous air quality risk assessments in accordance with U.S. EPA guidance for plywood and composite wood products manufacturing facilities, human health risk assessments under the California AB2588 program, multi-media contaminated site human health risk assessments, and a two-year comprehensive human health risk assessment for the Lawrence Berkeley National Laboratory to meet California Environmental Quality Act requirements.

#### **Ms. Candice Hatch (*permitting*) re-appointment to May 2008**

Ms. Hatch is an environmental engineer and consultant with more than 30 years of experience in air quality. Her work involves direction and performance of the technical analyses necessary for project evaluations. In addition, she has experience in task and project management for both industrial and governmental projects.

Her air quality experience focuses on permitting of new and modified industrial facilities. She has prepared permit applications and obtained permits for facilities under Title V, prevention of significant deterioration (PSD), new source review and state construction and operation permitting requirements. She has performed computer modeling, calculated emission inventories and prepared air pollutant control equipment evaluations (i.e., BACT, RACT, and LAER) as required to satisfy these regulations. An understanding of regulations and the industry-agency negotiation process complements her technical skills. Examples of the variety of clients for whom she has performed air quality permitting services include steel mills, pulp and paper mills, wood products plants, aggregate mining and processing plants, asphalt refineries, petroleum terminals, silver mines, electronics manufacturers, magnetic tape manufacturers, biomass power plants, wood-treating plants, coal-fired power plants and coal distribution facilities.

Ms. Hatch has prepared environmental impact statements (EIS) for a mix of projects. She has evaluated several transportation projects, a gold mine, an oil pipeline system, an oil refinery, a hazardous waste treatment storage facility, solid waste landfills, wastewater treatment facilities, power plants and other industrial developments under national and individual state EIS requirements. Ms. Hatch has also written the air quality evaluations of proposed rocket launch facilities in Florida and Kwajalein. She holds a BS degree in Environmental Engineering from California Polytechnic State University and is a Registered Professional Engineer in Oregon and Ohio.

**Dr. Kent Norville (*modeling*) re-appointment to May 2009**

Dr. Norville is an Associate Atmospheric Scientist and project manager at Air Sciences Inc. in Portland, Oregon. He specializes in air quality dispersion modeling, data analysis, and model development. He has considerable experience with a wide variety of models for a number of different public and private sector modeling applications. Applications include regulatory permit modeling, risk assessments, and environmental impact statements; dust fall and deposition studies; accidental release dispersion modeling; visibility modeling; water vapor cloud assessments; odor assessments; transportation conformity and hot spots dispersion modeling; meteorological data processing and assessments; specialized modeling; and custom model development. He has provided modeling assistance to a number of industrial clients, including aluminum producers, wood product facilities, pulp and paper facilities, metal processors, cement plants, mining operations, food producers, electric power producers, composting facilities, and waste treatment facilities.

Dr. Norville is experienced with risk assessment methods and applications. He has worked on a variety of different risk and toxics projects, including EPA superfund sites, public municipalities, and private industries across the United States. He has conducted modeling analyses of many toxic compounds, including: BTEX compounds associated with refinery and fuel depots, lead and zinc impacts from contaminated road dust, particulate emissions from open-pit cement operations, PAH and HF emissions from smelters, vinyl chloride and TEC emissions from treatment plants, solvent emissions from semiconductor facilities, and dioxin and heavy metal emissions from hazardous waste incinerators. Much of the modeling work has been used to show compliance with

Acceptable Source Impact Levels (e.g., Washington State), 1-in-a million cancer risks, chronic and acute hazard indexes (e.g., California's AB2588 program), and direct threshold levels used to assess both public and on-site worker health. He holds a Ph.D. degree in geophysics from the University of Washington and a B.S. degree in physics from the California Polytechnic University, San Luis Obispo.

**Ms. Natalia Kreitzer (*pollution controls*) re-appointment to May 2009**

Ms. Kreitzer received a B.S. degree in chemical engineering from Oregon State University and has been employed as an air quality engineer, first as a consultant and more recently as an air quality regulator. Her relevant engineering experience includes knowledge of sources of toxic emissions to the air, emission control strategies and current and future EPA regulations affecting toxic air emissions.

For the past six years she has worked for the Southwest Clean Air Agency (SWCAA) in Vancouver, Washington and has been the air toxics coordinator at SWCAA since 2000. In addition, her duties include writing Air Discharge Permits for industrial facilities, inspecting industrial facilities and determining compliance with all applicable air regulations including Washington's toxic rule "Controls for New Sources of Toxic Air Pollutants." In 2002, she participated as a member of Washington's Mercury Chemical Action Plan Advisory Committee and assisted in the development of a plan to reduce mercury in the state of Washington.

- In addition to the five re-appointments we must replace one current member; Dr. David Stone. This past spring Dr. Stone took a new position in the Department of Environmental and Molecular Toxicology at Oregon State University. He has continued to take part in committee proceedings but has now found his new obligations too great to devote time to ATSAC, and has reluctantly resigned. The Department must maintain expertise in toxicology and risk assessment on ATSAC and has identified Dr. Deanna Connors to fill that role.

**Dr. Deanna Connors (*toxicology and risk assessment*) appointment to December 2009**

Dr. Connors is a public health toxicologist for the Oregon Department of Human Resources (replacing Dr. Stone). She received her PhD in Environmental Toxicology and completed postdoctoral work at the University of Georgia where she worked on a variety of water quality issues including pesticides, nutrients and pharmaceuticals. Her interest in toxicology stems from having grown up near the Love Canal Superfund Site in Western New York. She enjoys nature photography, hiking, surfing and snowboarding.

The seventh member of ATSAC is:

**Dr. Dean B. Atkinson (*monitoring and atmospheric chemistry*) was appointed in June 2006 to serve until June 2009.**

Dr. Atkinson is an Associate Professor of Chemistry at Portland State University in Portland, OR. He received his Ph.D. in Physical Chemistry from the University of

Arizona in Tucson in 1995, where he studied the low-temperature kinetics of atmospherically relevant reactions (primarily involving OH radicals) with Dr. Mark A. Smith. He had a two year NRC Postdoctoral Research Assistantship at NIST in Gaithersburg, MD, where he worked with Dr. Jeffrey W. Hudgens on methods for measuring reaction kinetics of free radical reactions, predominantly using pulsed laser photolysis/cavity ring-down spectroscopy. After starting at PSU, he built on that work and became one of the acknowledged experts in the application of the cavity ring-down method, particularly as applied to environmentally related measurements. Since much of his work at PSU has centered on atmospheric chemistry and physics, he has developed some expertise in this area, particularly in methods used to measure atmospheric species (e.g., trace gases, radicals, particulate matter.) Current research projects focus on the use of the cavity ring-down technique to investigate air quality and climate change in the context of aerosol effects and the measurement of ambient atmospheric benzene levels in Portland.

The proposed changes in committee membership were posted on the Air Toxics website <http://www.deq.state.or.us/aq/toxics/conners.htm> and to electronic lists, to provide an opportunity for public comment.

State of Oregon  
Department of Environmental Quality

Memorandum

**Date:** November 20, 2007  
**To:** Environmental Quality Commission  
**From:** Andy Ginsburg, Air Quality Administrator  
**Subject:** Report: Willamette Valley Open Field Burning History and Field Burning Regulations in Neighboring States

**Short History of Willamette Valley Field Burning**

The Oregon Department of Agriculture regulates the burning of 65,000 acres of annual and perennial grass seed crop residue and cereal grain residue in the Willamette Valley. They operate a smoke management program that controls the time, location, and amount of burning on a daily basis each summer. Efforts are made to conduct the burning in a manner that minimizes air quality impacts and smoke intrusions in populated areas. This burning disposes of leftover straw and stubble on fields after grass seed harvesting. The purpose is to control weeds, insects and plant diseases, in order to maintain grass seed purity, reduce use of pesticides and herbicides, and improve yields.

The practice of field burning in the Willamette Valley began more than 50 years ago. In 1979 the Oregon Legislature authorized the burning of up to 250,000 acres annually. This resulted in an average of 220,000 acres burned each summer in the early to mid 1980's. In 1988, an accident on Interstate 5 involving multiple cars and causing seven fatalities was attributed to decreased visibility due to field burning smoke. This led to passage of House Bill 3343, which called for the phase-down of field burning from 1991 to 1998, with the acreage limit reduced from 180,000 down to 40,000 acres. The current limit of 65,000 is based on 40,000 acres plus a 25,000-acre limitation for certain fire dependent grass species and grasses grown on highly erodible soils on steep slopes. Estimates are that there are close to 500,000 acres in grass seed production in the Willamette Valley.

**Field Burning in Neighboring States**

1. Washington

In Washington, the burning of agricultural debris is generally allowed, however, the burning of grass seed crop residue (referred to as "field and turf grasses grown for seed") is specifically prohibited. This prohibition does not apply to tribal lands. (No estimates are available on how much field burning occurs on these lands).

State law allows the Washington Department of Ecology (WDOE) to prohibit this burning if it "certifies" that practical alternatives exist. Under state rule, WDOE has determined that "mechanical residue management" is a practical alternative. Mechanical residue management is defined as "removing, including arranging for removal of, the residue using nonthermal, mechanical techniques including, but not limited to: tilling, swathing, chopping, baling, flailing, mowing, raking, and other substantially similar nonthermal, mechanical techniques".

WDOE has determined that mechanical residue management is reasonably available throughout the state wherever baling can be used. A farmer may use any alternate practice that does not involve field burning. An exemption to this ban is where the farmer can show that slope prevents straw baling. However, very little burning occurs under this exemption.

## 2. Idaho

Idaho, like Washington, also prohibits grass field burning. This ban applies to "the burning of crop residue on fields where crops are grown". However, as explained below, this ban may be temporary. Other agricultural burning such as orchard prunings and weed abatement are allowed under certain conditions.

The ban on field burning resulted from action taken by the Idaho Department of Environmental Quality (IDEQ) to revise their State Implementation Plan (SIP) several years ago, to allow field burning under a smoke management program. However, due to some legal and procedural errors made by the state in revising the SIP, the state court ruled in January 2007 that field burning was banned. The summary below describes the events which lead to this outcome. Currently, there is discussion on returning to a smoke management approach and allowing burning.

- In 1986, the state legislature amended state law to prohibit IDEQ from promulgating rules regarding agriculture field burning, and at the same time repealing IDEQ's air quality rule that addressed grass field burning. This rule was part of Idaho's SIP.
- In 1990 and 1992, IDEQ submitted SIP revisions, which included this repeal of the agriculture field burning rule. In 1993 the U.S. Environmental Protection Agency (EPA) approved the SIP revisions.
- In 1999, the state legislature adopted the Smoke Management and Crop Residue Disposal Act. The new act did not prohibit IDEQ from promulgating rules regarding field burning. As a result, IDEQ promulgated a rule that clarified that field burning was an allowable form of open burning as long as it was conducted in accordance with the Act and associated smoke management rules.
- In 2003, IDEQ submitted this rule to EPA as a SIP clarification. Two years later, EPA approved the clarification. In January 2007, a court ruling was issued that said the change required an amendment to the SIP, not a clarification, and ruled that EPA had

inappropriately approved IDEQ rules. This action temporarily forced the State of Idaho to prohibit field burning.

### 3. California

The largest source of agricultural burning in California is not grass field burning, but rice residue field burning. Most of the rice growing in the state occurs in the Sacramento Valley. Approximately 500,000 acres of rice are grown each year. Up until the early 1990's, about 300,000 acres were burned annually. The burning was conducted to control rice disease and prepare the fields for the following year's crop.

In 1991, the California State Legislature adopted a phase-down of rice straw burning, to end in 2001. This regulation limited burning to 25% of an individual grower's planted acreage, but not to exceed an annual limit of 125,000 acres for the Sacramento Valley. In addition to these acreage caps, this regulation allows the burning of fields only for the purpose of disease control.

W. 3. B. 1.

**ABBREVIATED CONSENT CALENDAR FORMAT**

Memorandum Date: November 28, 2007

Order Date: December 12, 2007

---

**TO:** Board of County Commissioners

**DEPARTMENT:** County Administration- Community & Economic Development

**PRESENTED BY:** Mike McKenzie-Bahr

**AGENDA ITEM TITLE:** IN THE MATTER OF REQUESTING \$250,000 IN FUNDING FROM THE FIELD BURNING RESEARCH FUND TO IDENTIFY OPTIONS FOR ENERGY PRODUCTION FROM GRASS SEED STRAW.

---

**I. MOTION**

Move to apply for grant funds from the Field Burning Research Fund and authorize the County Administrator to sign the grant application.

**II. DISCUSSION**

**A. Background / Analysis**

The Lane County Board of Commissioners has been looking for ways to decrease the amount of grass straw burned each year. Approximately 90% of the 50,000 acres of grass straw burned each year is from ryegrass.

Grass straw from other types of grass is used in a variety of value added products, which for economic reasons has eliminated that straw being burned.

The seed industry has looked at other uses for the ryegrass straw, but none have proved to have enough economic value that it makes financial sense for the growers to do anything but plow it under for several years and burn it every third year or so to add nutrients to the ground.

Commissioner Sorenson and the County Economic Community and Economic Development Coordinator met with Katy Coba, Director of the Oregon Department of Agriculture and Dave Nelson of the Oregon Seed Council on October 18, 2007 to identify a win-win solution to add value to the ryegrass



straw. The opportunity presented by using the grass straw for energy production was the focus of the meeting. That meeting was followed up by additional meetings to identify specific short term, mid-term and long term projects to research and discuss potential pilot projects.

Both the Oregon Department of Agriculture and the Oregon Seed Council have indicated support for using funding for the research and pilot project from the Field Burning Research Fund. The Field Burning Research Fund is a state fund administered by the Department of Agriculture. The money is derived from fees that grass seed growers pay to burn their fields. (There are no County funds being requested as match for these funds).

On November 27, 2007, the Oregon Seed Council approved a companion resolution to the Board Order attached to this report, supporting the County's request for funding. The Seed Council has committed to assisting with elements of the project and identification of seed growers who are interested in immediately working on this project.

One of the things that has earned the County this support is that Lane County, through the Forest Service Partnership Grant, has put together a biomass working group, including representatives of Lane Microbusiness; Resource Innovations, Institute for a Sustainable Environment, University of Oregon; Northwest Cooperative Development Center; Oregon Environmental Council; Trillium FiberFuels; Novus Group; Sylvatex, Lane Council Of Governments; the Good Company, and Lane County Community and Economic Development. The group is working with the community to identify economic uses for local biomass. The initial biomass the group is looking at opportunities for is woody biomass waste products, like slash. But those efforts have grown to include other waste products including grass straw.

The group has identified opportunities presented by using the grass straw for energy production ranging from short term opportunities like anaerobic digestion to electricity, through long term use for ethanol production.

The \$250,000 from the Field Burning Research Fund would be used to research short-term, mid-term and long-term options for adding value to grass straw through renewable energy and fuel production, with the goal that implementation of the options would build economic alternatives for grass straw that would supplant current practice and development of a pilot project/s using grass straw as a bioenergy source.

The pilot projects would occur in Lane County. Among the project research and pilot project partners will include the Metropolitan Waste Management Commission which currently uses anaerobic digestion for electricity production.

The research steps include:

- 1) Development of financial model for each option. The goal of the financial models will be grass straw use that is revenue neutral and/or revenue positive for

growers.

Financial models will include revenue and expenses for each step of the process

- a) Harvesting
- b) Nutrient replenishment/Pest control
- c) Bailing
- d) Hauling
- e) Storage
- f) End Use - including location, capacity of existing and planned facilities (including siting and permitting with regards to grass straw), energy production, and value of feedstock for following options:
  - Anaerobic Digestion
  - Pyrolysis
  - Cellulosic Ethanol
  - Boilers
- g) Tax and Energy Credits (including Carbon Credits) for each step of process
- h) Life cycle sustainability audit to include value of straw as a product compared to burning it.

2) Task list for implementation of each option listed above

3) Interviews with relevant partners and their commitment to a given option.

The grants funds will be used by the County to accomplish the above by contracting out project elements. We will use an RFP process to choose contractors.

The grant application is still being worked on at this time, so it is not attached to this report.

There is no match required from the County for this grant. The grant will fully pay for expenditures for Material and Services by the County and the grant will pay for the administrative work of the grant.

The accounting, auditing and evaluation obligations imposed by the grant do not exceed what we are already doing to track project funds and elements. We will use a portion of these grant funds, if awarded, to cover the accounting, auditing and evaluation obligations of the County, both for Economic & Community Development and Fiscal. The grant allows rules allow 10% of the costs to be used for grant administration so that will be enough to cover these obligations at the county full cost indirect charge.

I reviewed the grant application and I see no unique or unusual conditions that trigger additional county work effort, or liability, i.e., maintenance of effort requirements or supplanting prohibitions or indemnity obligations.

This grant does not involve any technology issues that require Information Services department review.

The time period of the grant will be for one year from award of the grant.

**B. Recommendation**

There is a lot of discussion regarding the opportunity for biofuels in Oregon based on local non-food resources. This grant will help determine if there is an opportunity to identify economic uses for grass straw as a value added product for renewable energy production.

The Lane County Community & Economic Development Coordinator recommends the Board of Commissioners approve the motion to apply for the grant to do research and development on grass straw opportunities.

As stated previously, no County funding is being committed at this time as match to the grant application. This is a non-construction project

**III. ATTACHMENTS**

Board Order

IN THE BOARD OF COUNTY COMMISSIONERS  
OF LANE COUNTY, OREGON

ORDER NO.

) IN THE MATTER OF REQUESTING  
) \$250,000 IN FUNDING FROM THE  
) FIELD BURNING RESEARCH FUND  
) TO IDENTIFY OPTIONS FOR ENERGY  
) PRODUCTION FROM GRASS SEED  
) STRAW.

WHEREAS, Oregon's Grass Seed industry produces more than \$450 million in annual sales and is known across America for its quality grass and seed; and

WHEREAS, the grass seed industry is very important to the State, Willamette Valley and Lane County, where we benefit from seed production revenue and an industry multiplier effect that creates jobs in other industries; and

WHEREAS, a grass seed by-product, known as grass straw, is used in a variety of value added products currently, and

WHEREAS, some of the grass straw from annual ryegrass is burned each year and controversy exists about the effect of the smoke; and

WHEREAS, representatives of Lane County have met with Katy Coba, Director of the Oregon Department of Agriculture and Dave Nelson of the Oregon Seed Council to find a win-win solution to add value to the ryegrass straw, and

WHEREAS, the Oregon Department of Agriculture and the Oregon Seed Council administer the Field Burning Research Fund, and

WHEREAS, Lane County has put together a biomass working group, including representatives of Lane Microbusiness; Resource Innovations, Institute for a Sustainable Environment, University of Oregon; Northwest Cooperative Development Center; Oregon Environmental Council; Trillium FiberFuels; Novus Group; Lane Council Of Governments; the Good Company, and Lane County Community and Economic Development to identify economic uses for local biomass, including grass straw as a value added product for renewable energy production, and said group will be working in collaboration with the Oregon Seed Council to identify and develop alternatives for use of grass straw, and

NOW THEREFORE IT IS HEREBY RESOLVED AND ORDERED, Lane County requests \$250,000 from the Field Burning Research Fund in order to help 1) identify short-term, mid-term and long-term options for adding value to grass straw through renewable energy and fuel production, with the goal that implementation of the options would build economic alternatives for grass straw that would supplant current practice and 2) initiate a pilot project in Lane County using grass straw as a bioenergy source, and

IT IS FURTHER ORDERED that the County Administrator is authorized to sign grant application.

DATED this 12th day of December, 2007.

---

Faye Stewart Chair,  
Lane County Board of Commissioners

APPROVED AS TO FORM  
Date 12/3/07 Lane County  
*Teresa J. Hill*  
OFFICE OF LEG. COUNSEL



NorthernStar Natural Gas  
Bradwood Landing

FOR IMMEDIATE RELEASE:  
Thursday, Dec. 13, 2007

Contact: Charles Deister  
(503) 949-5762

## **Clatsop County Commission approves zoning changes requested to build the proposed Bradwood Landing LNG terminal**

***The Bradwood terminal will provide hundreds of construction jobs, 65 permanent family-wage jobs, more than \$7.8 million annually in taxes for the county, and a stable supply of natural gas.***

ASTORIA, Ore. – By a vote of 4-1, the Clatsop County Commission today tentatively approved the consolidated zoning application that will allow the construction of the Bradwood Landing LNG terminal. Parent company NorthernStar Natural Gas has worked with county, state and federal officials for more than two years on the siting of the facility on land that formerly housed a lumber mill, town and deep-water port.

“The construction and operation of the Bradwood Landing terminal will bring good jobs to Clatsop County, but more importantly will help secure a more stable energy future for Oregon and Washington,” said Paul Soanes, president of NorthernStar Natural Gas. “We greatly appreciate the time and considerable effort the commissioners and their staff put into reviewing our application and look forward to working with them as we move forward on our project.”

Based on the County Commission’s vote today, NorthernStar Natural Gas will work with the county to prepare findings consistent with the board’s discussion for final approval at a subsequent meeting of the County Commission.

Without additional supplies of natural gas – either through LNG or additional pipelines from supply areas such as Canada, the U.S. Rockies or the Gulf of Mexico – the Pacific Northwest would likely experience spikes in natural gas prices in the coming years. Importing gas via LNG directly into the region at Bradwood would insulate the regional economy from the ripple effects of higher energy costs, boost regional employment and be a boon to Clatsop County.

The construction of Bradwood Landing would create 450 jobs over three years and, once completed, would create 65 permanent jobs at the facility and associated maritime trades with wages averaging \$60,000 per year (more than twice the current average wage in Clatsop County). In addition, the Bradwood terminal would pay more than \$7.8 million annually in property taxes to the county. NorthernStar’s Salmon Enhancement Initiative would ensure that the project creates a net benefit for the ecology of the Lower Columbia River and represents the largest private financial commitment to watershed restoration on the Columbia. The Salmon Enhancement Initiative would provide up to \$59 million over the life of the project for watershed and critical habitat restoration.

Public comment on the Federal Energy Regulatory Commission’s draft Environmental Impact Statement for Bradwood Landing is open through Dec. 24. FERC staff will then respond to all of the comments it has received before issuing its final Environmental Impact Statement.

Additionally, Bradwood will continue to work with Oregon natural resource agencies for related state permits.

###

*Item C*

W. 3. B. 1.

**ABBREVIATED CONSENT CALENDAR FORMAT**

Memorandum Date: November 28, 2007

Order Date: December 12, 2007

---

**TO:** Board of County Commissioners

**DEPARTMENT:** County Administration- Community & Economic Development

**PRESENTED BY:** Mike McKenzie-Bahr

**AGENDA ITEM TITLE:** IN THE MATTER OF REQUESTING \$250,000 IN FUNDING FROM THE FIELD BURNING RESEARCH FUND TO IDENTIFY OPTIONS FOR ENERGY PRODUCTION FROM GRASS SEED STRAW.

---

**I. MOTION**

Move to apply for grant funds from the Field Burning Research Fund and authorize the County Administrator to sign the grant application.

**II. DISCUSSION**

**A. Background / Analysis**

The Lane County Board of Commissioners has been looking for ways to decrease the amount of grass straw burned each year. Approximately 90% of the 50,000 acres of grass straw burned each year is from ryegrass.

Grass straw from other types of grass is used in a variety of value added products, which for economic reasons has eliminated that straw being burned.

The seed industry has looked at other uses for the ryegrass straw, but none have proved to have enough economic value that it makes financial sense for the growers to do anything but plow it under for several years and burn it every third year or so to add nutrients to the ground.

Commissioner Sorenson and the County Economic Community and Economic Development Coordinator met with Katy Coba, Director of the Oregon Department of Agriculture and Dave Nelson of the Oregon Seed Council on October 18, 2007 to identify a win-win solution to add value to the ryegrass

straw. The opportunity presented by using the grass straw for energy production was the focus of the meeting. That meeting was followed up by additional meetings to identify specific short term, mid-term and long term projects to research and discuss potential pilot projects.

Both the Oregon Department of Agriculture and the Oregon Seed Council have indicated support for using funding for the research and pilot project from the Field Burning Research Fund. The Field Burning Research Fund is a state fund administered by the Department of Agriculture. The money is derived from fees that grass seed growers pay to burn their fields. (There are no County funds being requested as match for these funds).

On November 27, 2007, the Oregon Seed Council approved a companion resolution to the Board Order attached to this report, supporting the County's request for funding. The Seed Council has committed to assisting with elements of the project and identification of seed growers who are interested in immediately working on this project.

One of the things that has earned the County this support is that Lane County, through the Forest Service Partnership Grant, has put together a biomass working group, including representatives of Lane Microbusiness; Resource Innovations, Institute for a Sustainable Environment, University of Oregon; Northwest Cooperative Development Center; Oregon Environmental Council; Trillium FiberFuels; Novus Group; Sylvatex, Lane Council Of Governments; the Good Company, and Lane County Community and Economic Development. The group is working with the community to identify economic uses for local biomass. The initial biomass the group is looking at opportunities for is woody biomass waste products, like slash. But those efforts have grown to include other waste products including grass straw.

The group has identified opportunities presented by using the grass straw for energy production ranging from short term opportunities like anaerobic digestion to electricity, through long term use for ethanol production.

The \$250,000 from the Field Burning Research Fund would be used to research short-term, mid-term and long-term options for adding value to grass straw through renewable energy and fuel production, with the goal that implementation of the options would build economic alternatives for grass straw that would supplant current practice and development of a pilot project/s using grass straw as a bioenergy source.

The pilot projects would occur in Lane County. Among the project research and pilot project partners will include the Metropolitan Waste Management Commission which currently uses anaerobic digestion for electricity production.

The research steps include:

- 1) Development of financial model for each option. The goal of the financial models will be grass straw use that is revenue neutral and/or revenue positive for



growers.

Financial models will include revenue and expenses for each step of the process

- a) Harvesting
- b) Nutrient replenishment/Pest control
- c) Bailing
- d) Hauling
- e) Storage
- f) End Use - including location, capacity of existing and planned facilities (including siting and permitting with regards to grass straw), energy production, and value of feedstock for following options:
  - Anaerobic Digestion
  - Pyrolysis
  - Cellulosic Ethanol
  - Boilers
- g) Tax and Energy Credits (including Carbon Credits) for each step of process
- h) Life cycle sustainability audit to include value of straw as a product compared to burning it.

2) Task list for implementation of each option listed above

3) Interviews with relevant partners and their commitment to a given option.

The grants funds will be used by the County to accomplish the above by contracting out project elements. We will use an RFP process to choose contractors.

The grant application is still being worked on at this time, so it is not attached to this report.

There is no match required from the County for this grant. The grant will fully pay for expenditures for Material and Services by the County and the grant will pay for the administrative work of the grant.

The accounting, auditing and evaluation obligations imposed by the grant do not exceed what we are already doing to track project funds and elements. We will use a portion of these grant funds, if awarded, to cover the accounting, auditing and evaluation obligations of the County, both for Economic & Community Development and Fiscal. The grant allows rules allow 10% of the costs to be used for grant administration so that will be enough to cover these obligations at the county full cost indirect charge.

I reviewed the grant application and I see no unique or unusual conditions that trigger additional county work effort, or liability, i.e., maintenance of effort requirements or supplanting prohibitions or indemnity obligations.

This grant does not involve any technology issues that require Information Services department review.

The time period of the grant will be for one year from award of the grant.

**B. Recommendation**

There is a lot of discussion regarding the opportunity for biofuels in Oregon based on local non-food resources. This grant will help determine if there is an opportunity to identify economic uses for grass straw as a value added product for renewable energy production.

The Lane County Community & Economic Development Coordinator recommends the Board of Commissioners approve the motion to apply for the grant to do research and development on grass straw opportunities.

As stated previously, no County funding is being committed at this time as match to the grant application. This is a non-construction project

**III. ATTACHMENTS**

Board Order

IN THE BOARD OF COUNTY COMMISSIONERS  
OF LANE COUNTY, OREGON

ORDER NO.

) IN THE MATTER OF REQUESTING  
) \$250,000 IN FUNDING FROM THE  
) FIELD BURNING RESEARCH FUND  
) TO IDENTIFY OPTIONS FOR ENERGY  
) PRODUCTION FROM GRASS SEED  
) STRAW.

WHEREAS, Oregon's Grass Seed industry produces more than \$450 million in annual sales and is known across America for its quality grass and seed; and

WHEREAS, the grass seed industry is very important to the State, Willamette Valley and Lane County, where we benefit from seed production revenue and an industry multiplier effect that creates jobs in other industries; and

WHEREAS, a grass seed by-product, known as grass straw, is used in a variety of value added products currently, and

WHEREAS, some of the grass straw from annual ryegrass is burned each year and controversy exists about the effect of the smoke; and

WHEREAS, representatives of Lane County have met with Katy Coba, Director of the Oregon Department of Agriculture and Dave Nelson of the Oregon Seed Council to find a win-win solution to add value to the ryegrass straw, and

WHEREAS, the Oregon Department of Agriculture and the Oregon Seed Council administer the Field Burning Research Fund, and

WHEREAS, Lane County has put together a biomass working group, including representatives of Lane Microbusiness; Resource Innovations, Institute for a Sustainable Environment, University of Oregon; Northwest Cooperative Development Center; Oregon Environmental Council; Trillium FiberFuels; Novus Group; Lane Council Of Governments; the Good Company, and Lane County Community and Economic Development to identify economic uses for local biomass, including grass straw as a value added product for renewable energy production, and said group will be working in collaboration with the Oregon Seed Council to identify and develop alternatives for use of grass straw, and

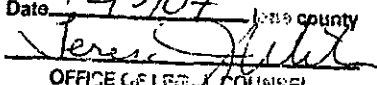
NOW THEREFORE IT IS HEREBY RESOLVED AND ORDERED, Lane County requests \$250,000 from the Field Burning Research Fund in order to help 1) identify short-term, mid-term and long-term options for adding value to grass straw through renewable energy and fuel production, with the goal that implementation of the options would build economic alternatives for grass straw that would supplant current practice and 2) initiate a pilot project in Lane County using grass straw as a bioenergy source, and


IT IS FURTHER ORDERED that the County Administrator is authorized to sign grant application.

DATED this 12th day of December, 2007.

---

Faye Stewart Chair,  
Lane County Board of Commissioners

APPROVED AS TO FORM  
Date 12/3/07 Lane County  
  
OFFICE OF LEG. COUNSEL

**Date:** November 30, 2007  
**To:** Environmental Quality Commission  
**From:** Dick Pedersen, Deputy Director   
**Subject:** Agenda Item D, Action Item: New Director Selection Criteria and Appointment of Acting Director  
December 13-14, 2007 EQC Meeting

**Why this is Important** To meet statutory requirements, the Commission must solicit public comment on, and formally accept hiring standards and criteria for the selection of the next Director of the Department of Environmental Quality before it can proceed with a recruitment. The Commission must also adopt a hiring timeline and appoint an Acting Director to oversee the agency until a new Director is named.

**Background** Under ORS 192.660(2)(a), in order to consider the selection of a successor to the departing Executive Director in executive session, the Commission needs to announce in a public session the enumerated items in ORS 192.660(7)(d). In relevant part, that section states,

"(7) The exception granted by subsection (2)(a) [allowing an executive session to consider employment] of this section does not apply to ...

(d) The employment of the chief executive officer, other public officers, employees and staff members of a public body unless:

(A) The public body has advertised the vacancy; (*Attachment A*)

(B) The public body has adopted regular hiring procedures (*Attachments A & B*);

(C) In the case of an officer, the public has had the opportunity to comment on the employment of the officer; and

(D) In the case of a chief executive officer, the governing body has adopted hiring standards, criteria and policy directives in meetings open to the public in which the public has had the opportunity to

comment on the standards, criteria and policy directives.”

**Key Issues**

Key issues are:

- Criteria for minimum qualifications
- Adoption of a hiring timeline.
- Appointment of an Acting Director until the Commission appoints a new Director.

**EQC Action Alternatives**

Do not fill the DEQ Director position through an open recruitment process.

**Recommendation**

- The Commission review, take public comment, and adopt the attached hiring standards, criteria and policy directives to be used for the selection of the next DEQ Director.
- The Commission appoint Deputy Director Dick Pedersen as Acting Director.

**Attachments**

- A. Recruitment Announcement DRAFT
- B. Timeline DRAFT
- C. Stakeholder feedback to be used for selection process

Approved:

Section:



Division:

*Patterson for Kern Nelson*

Report Prepared By: Twyla Lawson,  
Statewide Recruitment Services, DAS

Phone: 503-373-7677

**PRINCIPAL EXECUTIVE/MANAGER H**

**(Director of the Department of Environmental Quality)**

**\$88,116 - \$136,320 ANNUALLY**

**Announcement Number: DRAFT####**  
**Classification Number: Z7008**  
**Open December 15th 2007 *(or sooner, if possible)***  
**Close: Open Until Filled\***  
**Location: Portland, Oregon**

**\*The first review of applications will begin January 15, 2007 and the hiring committee may decide to close the announcement at that time. For immediate consideration, please APPLY NOW.**

The Department of Environmental Quality has an exceptional opportunity for an experienced leader to serve as the Agency Director. The Director reports to, and is selected by the Environmental Quality Commission (EQC), a volunteer five-member policy and administrative commission appointed by the Governor. Informally, the Director also reports to the Governor, through the Governor's Natural Resources Policy Advisor. This is a permanent, full-time, executive service position located in Portland, Oregon. If you are hired, you will become part of the State's Executive Service team.

**AGENCY OVERVIEW**

The mission of the Department of Environmental Quality is to be an active leader in restoring, enhancing and maintaining the quality of Oregon's air, water and land. The Department has approximately 800 positions and a budget of \$300 million dollars. 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.

DEQ staff use a combination of public outreach, technical assistance, permitting, inspections, and enforcement as tools to help public and private facilities and citizens understand and comply with state and federal environmental regulations.

The DEQ staff includes scientists, engineers, technicians, administrators, and environmental specialists, among others. The agency's headquarters office is located in Portland with regional administrative offices in Eugene, Pendleton and Portland; and field offices in Bend, Coos Bay, Grants Pass, Gresham, Hermiston, Medford, Pendleton, Roseburg, Salem, The Dalles and Warrenton. DEQ operates a new, pollution-control laboratory in Hillsboro. In addition to local programs, the Environmental Protection Agency (EPA) delegates authority to DEQ to operate federal environmental programs such as the Federal Clean Air, Clean Water, and Resource Conservation and Recovery Acts.

**TO QUALIFY**

Your resume and cover letter will be reviewed to verify that you meet the minimum qualifications and desired attributes stated in this section. To receive credit your resume and cover letter must clearly show that you have the following experience and skills:

- **Six years of management experience related to environmental sciences, or related field;** In addition, your experience must include responsibility for each of the following:
  - a) Development and implementation of program rules and policies;
  - b) Development and implementation of long- and short-range goals and plans;
  - c) Program evaluation; and
  - d) Budget preparation.

Graduate level course work (48 quarter or 32 semester hours) in management may be substituted for one year of the required experience.

Agenda Item D, Action Item: Appointment of Interim Director and Draft Criteria for New Director Selection  
December 13-14, 2007 EQC Meeting  
Attachment A

**In your resume you must clearly describe your experience in each of the a), b), c), d) areas listed. Failure to provide this information may result in eliminating your application from further consideration.**

**DESIRED ATTRIBUTES**

- Experience building consensus, managing conflict and decision making
- Knowledge of regulatory law, environmental programs/issues
- Experience in regulatory oversight, including enforcement of rules, laws and statutes
- Knowledge of modern management practices and principles
- Experience providing leadership and vision to a medium/large organization
- Strong written and oral communication skills with diverse influential audiences
- Experience forming collaborative and productive partnerships with a diverse set of stakeholders and staff
- Experience in the development, implementation and evaluation of strategic organizational goals, plans and policies
- Experience in an executive level position that included legislative and rulemaking processes

Only the candidates whose experience most closely match the qualifications and desired attributes of this position will be invited to an interview.

**SCOPE OF THE POSITION**

The DEQ Director administers and enforces laws regulating air, water, and land pollution; administers programs delegated by the U. S. Environmental Protection Agency (EPA) including the Clean Air, Clean Water and Resource Conservation and Recovery Acts; administers state statutes including solid waste management, recycling, and environmental cleanup; serves as a member of the Governor's Natural Resources agency cabinet. The major responsibilities include but are not limited to the following:

**Program Administration/Direction- Program responsibilities include** directing the development and implementation of the Department strategic plan and performance measures; overseeing development of agency rules to assure compliance with state/federal laws and regulations, for approval by the EQC; monitoring state and federal legislation; negotiating contracts with EPA to carry out federal environmental programs and ; enforcing environmental laws of the state, and of the federal government where delegation has occurred, including levying civil penalties and seeking voluntary cooperation; and administering the directives of the Commission.

**Agency Management/Administration-** Develops the agency biennial budget request that implements the agency's strategic planning goals and presents it to the Legislature Implements and manages, the agency legislatively-approved budget. Maintains knowledge of environmental issues locally and nationally, and in sufficient technical depth, to allow for reasoned policy and administrative rules recommendations to the EQC. Provides guidance and leadership to DEQ management and staff Provides direction and directs the implementation of agency affirmative action plans, employee safety activities, and other plans to attract, retain, and manage a diverse, well-trained work force.

**External/Outreach-** Anticipates issues and maintains rapport with the Oregon Legislature, Oregon's Congressional Delegation, editorial boards of newspapers in Oregon, directors of state and federal agencies, and special interest groups to assure DEQ success in receiving support and resources for environmental programs. Promotes awareness of environmental issues and agency programs to the public and the regulated community through public informational meetings, public hearings, and the media. Reports regularly to the Chairman of the EQC, and meets regularly with other natural resource agency directors, and Governor's Natural Resources Policy Advisor and reports, on appropriate topics, to the Director of the Dept. of Administrative Services.

**Supervision-** Plans, assigns and approves work, including developing, implementing and updating position descriptions and work plans. Prepares annual performance appraisals; recommends appropriate personnel actions. Disciplines and rewards staff according to policy and collective bargaining agreement. Directs the investigation, responds and facilitates resolution of grievances and complaints. Directs the management of recruitment in interviewing, reference checking, and makes hiring decisions in accordance with agency policy, goals and programs such as affirmative action, injured worker, and employment laws. Evaluates and implements unit training needs to ensure staff are prepared to perform assigned duties including evaluation and creation of opportunities for staff development. Handles personnel issues expeditiously according to procedures and collective bargaining agreement.



Agenda Item D, Action Item: Appointment of Interim Director and Draft Criteria for New Director Selection  
December 13-14, 2007 EQC Meeting  
Attachment A

**WORKING CONDITIONS**

Most work is performed in a typical office environment with extensive public contact by telephone and in person. Frequent exposure to intense pressure from people and interest groups with conflicting interests and politically sensitive positions. Involves substantial travel in-state and nationally to attend meetings and conferences. Must possess a valid driver's license and a good driving record or be able to provide an acceptable alternate method of transportation. The person in this position works a professional workweek (8 a.m. to 5 p.m., Monday through Friday) and the incumbent's flexibility to this work schedule is considered a condition of employment. It is understood that the hours of work may vary from day to day, week to week and the work may often exceed 40 hours per week.

**APPLICATION**

**Interested persons are asked to submit the following four (4) documents:**

- 1. A Resume**
- 2. A Cover Letter** (No more than three pages describing how your experience and education meet the qualifications and **desired attributes** described in "To Qualify" section of this announcement.)
- 3. A List of Professional References** that include at least two in each of the following categories: Peers, Subordinates, and Superiors.
- 4. A completed Executive Service Applicant Information Form**

**Please deliver, mail or fax your materials (by the deadline on this recruitment) to:**

Twyla Lawson  
Executive Recruitments  
Department of Administrative Services  
155 Cottage St. U40  
Salem, OR 97310  
Fax (503) 378-4596

**OR** Email your completed materials to: [executive.recruitments@state.or.us](mailto:executive.recruitments@state.or.us)

**\* Please put "DEQ Director" in the subject line**

***The Oregon Department of Administrative Services and the Department of Environmental Quality are proud to be an equal opportunity, affirmative action employer committed to a diverse work place.***

---

NOTICE of results will be sent by mail. Although we are not required to delay our selection process, you may request a review of the results. Your request must be received within 10 days from the date of the notice. Additional information cannot be accepted. However, if the recruitment is still open, you may submit a new application, which must be received in our office by the close date. **SUBMIT** only the required materials. **KEEP** a copy of your application for job interviews. **COPIES ARE NOT PROVIDED.** The pay on all announcements may change without notice. **CURRENT JOB OPENINGS** and information on application forms are available through: World Wide Web - <http://www.oregonjobs.org>

## Director of the Department of Environmental Quality Recruitment Plan

\*\*\*DRAFT 11/21/07\*\*\*

Task	Who	Completion Dates
Discuss draft plan and Identify EQC Recruitment Subcommittee	EQC, Carrier, Hallock, & Lottridge	8/16/07 EQC meeting DONE
Identify Stakeholders and submit the list to DAS	EQC Subcommittee & DEQ EMT	By 11/10/07
Formally let stakeholders know that EQC will be taking input.	DAS will email/mail out stakeholder letters for DEQ & EQC	until 11/23/07
Ensure full EQC has received stakeholder input information (Including DEQ EMT & Staff Input)	DAS	By 12/5/07
<b>Adopt Final Plan: Including Recruitment Announcement (criteria)</b>	<b>EQC (support from DAS)</b>	<b>12/13/07</b>
Update Position Description & Organizational Chart	DEQ Drafts, EQC Finalizes	12/13/07
Determine scope of recruitment	EQC Subcommittee & Gov. Office	12/13/07
<b>Open &amp; Distribute Job Announcement</b>	<b>DAS &amp; DEQ</b>	<b>12/13/07 - 1/18/08</b>
Develop 1 <sup>st</sup> round interview questions	EQC Subcommittee, & Gov. Office	By 1/06/08
Processing of Applications & Applicant Summary	DAS will complete & provide to EQC Subcommittee	By 1/22/08
Select Candidates for first interview	EQC Subcommittee, Gov. Office & DAS	By 1/25/08
Develop additional questions and ideas for structure of final round of interviews	DAS, EQC Subcommittee	By 2/1/08
<b>First round of interviews</b>	<b>Selection Subcommittee (DAS facilitating)</b>	<b>2/4/08</b>
Reference Checks	DAS, EQC Subcommittee	2/5-2/11/08
<b>Final Interviews (2-3 candidates), Including an interview with the Governor</b>	<b>Full EQC &amp; Gov. Office (may also include additional audiences)</b>	<b>Week of 2/18/08, ideally day before EQC meeting</b>
Consultation on final selection	Full EQC, Governor	Same day, if possible
Appointment Decision and Public Vote to approve offer	EQC (support from DAS) <i>PM</i>	By 2/22/08
Security Checks	DAS	By 2/29/08
Appointment decision & offer	EQC (support from DAS)	By 2/29/08
New Director on Board		3/15/08

## Oregon Department of Environmental Quality Director Stakeholder Feedback Survey

Conducted by Twyla Lawson, Sr. Recruitment Consultant, through the use of SurveyMonkey.com

*Following are the unfiltered results of the Stakeholder Feedback Survey that opened October 30, 2007 and closed on November 30, 2007.*

<b>1. Please rate the importance of the following characteristics, experience, and qualities in a successful DEQ Director.</b>						
	Undetermined	Not Important	Somewhat Important	Important	Very Important	Response Count
Experience in an executive level position that included legislative and rulemaking processes	1.3% (3)	7.7% (18)	21.9% (51)	43.3% (101)	25.8% (60)	233
Experience in the development, implementation and evaluation of strategic organizational goals, plans and policies	0.9% (2)	3.4% (8)	21.0% (49)	47.2% (110)	27.5% (64)	233
Sufficient knowledge of regulatory law, environmental programs/issues and management principles	0.4% (1)	1.3% (3)	12.0% (28)	37.3% (87)	48.9% (114)	233
Proven success in providing leadership and vision	0.0% (0)	0.4% (1)	12.9% (30)	29.2% (68)	57.5% (134)	233
Demonstrated ability to form collaborative and productive partnerships with a diverse set of stakeholders and staff	0.9% (2)	2.6% (6)	12.9% (30)	36.1% (84)	47.6% (111)	233
Strong written and oral communication skills with diverse influential audiences	0.4% (1)	0.9% (2)	12.4% (29)	40.8% (95)	45.5% (106)	233
Demonstrated skill at consensus building, managing conflict and decision making	0.9% (2)	2.6% (6)	12.9% (30)	33.9% (79)	49.8% (116)	233
Ensure the Environmental Quality Commission (EQC) has the information and guidance needed to make sound decisions in	0.9% (2)	0.9% (2)	8.6% (20)	37.8% (88)	51.9% (121)	233

**1. Please rate the importance of the following characteristics, experience, and qualities in a successful DEQ Director.**

the public's best interest						
Ability to establish priorities by evaluating needs of various groups served by the EQC and allocating resources to meet those needs	1.7% (4)	3.4% (8)	22.7% (53)	<b>44.2% (103)</b>	27.9% (65)	233
Be a change agent	3.9% (9)	8.6% (20)	24.5% (57)	18.0% (42)	<b>45.1% (105)</b>	233
	answered question					233

**2. Are there any additional characteristics, experience, or qualities (not mentioned in question #1) the next DEQ Director must possess in order to be successful?**

*answered question* 169

*skipped question* 65

**Comment Text**

1. A deep respect and understanding of the environment the agency is charged with protecting
2. The most important quality for a new DEQ director is a commitment to strongly enforce the laws that protect Oregon's air, land and water. The new director must be willing to prioritize enforcement and ensure that polluters who do not abide by Oregon's laws are punished. Strong enforcement will serve as a strong deterrent to other would-be violators.
3. Someone who will pro-actively uphold the environmental laws and bring polluters into enforcement. Someone who's not just comfortable with the status quo.
4. He/She needs the ability to get his planning meetings published in local media so people can know about DEQ notions and/or plans.
5. Demonstrated ability to persist in face of obstacles, complexity and challenges.
6. Of utmost and primary importance: the next DEQ Director MUST be absolutely true to the mission(s) and roles of Oregon DEQ: PROTECTING OREGONS ENVIRONMENT. Director should make certain that that such is written within DEQ Fact Sheets; "Air Toxics of Concern in Oregon" "Reducing Toxic Air Pollutants", "Redesignated Non Attainment Areas" in addition to similar publications regarding the careful maintenance of acceptable Water and Land Quality standards are in PRACTICE as well as in PRINT / described on DEQ sites. In the past several years, atrocities such as the apparently 'rewriting' and/or 'toning down' the reports of qualified scientists by those of certain political perspectives. That and similar practices are a danger to our citizens and planet - and are unacceptable,
7. Someone who is non-partisan and has the health and safety of our environment as the number one priority. Someone who does not give in to political pressure but believes in protecting our environment not protecting business interests.
8. Commitment to DEQ mission and unwavering leadership focus on effective oversight, including ability to motivate public and lawmakers to provide needed resources and freedom to act.

9. Understands that the director represents the public and the public's interests.
10. The ability to work closely with the Governor's office to ensure that the culture at DEQ supports protection of Oregon's treasured environment and public health.
11. Must not be a toady of the development industries nor 'polluter' corporations.
12. The ability to enforce and stand behind the laws governing water quality and pollution issues.
13. The ability to refuse to bargain away the future health & restoration of our precious resources & environment to the interests of financially &/or politically powerful "stakeholders"
14. The ideal candidate would have some experience working in the private and nonprofit sectors, not only in working for regulatory agencies.
15. A knowledge environmental hazards. A history of being tough on pollution, and tougher on regulation violators. Knowledge of environmental law would help, obviously.
16. Demonstrated interest and experience doing what is best for the public as a whole even if such a decision might be difficult due to powerful opposition.
17. The ability to be an advocate for Oregon's environment, even in a cynical, politically charged atmosphere at times. Never lose sight of the agency being a regulatory entity - not one that "serves customers."
18. A spine. Be able to stand up to polluting industries and municipalities.
19. common sense and realism - it would be great to save the world, but being able to focus on what is realistically possible is much more useful
20. They should be willing to exert DEQ's authority to regulate polluters to the degree necessary to protect Oregonian's health and welfare.
21. Innovative approaches, thinking beyond traditional media-specific silos, appreciation for overarching principles - sustainability, climate change, toxics reduction and safer chemicals - and how these issues inter-relate
22. ability to evaluate and suggest ways to address the perception that industry funding support compromises the mission of the agency
23. A focus on rehabilitating the image of DEQ by focusing on DEQ's mission to preserve the environment.
24. I believe that the new Director should come from outside the agency and should not have any stake in the current status quo. It's very important for the new Director to be able to move the agency towards being more effective at representing and protecting the public interest while improving upon the agency's current image as serving primarily the interests of the regulated community.
25. ~~A willingness to fulfill the mission of the agency and enforce the law despite pressure from the regulated community~~
26. A commitment to actually protecting the quality of the environment, not the viability of businesses impacting the environment.
27. Strong commitment to environmental protection and upholding the law. Ignoring political interference.
28. Ability to reform a broken system. Ability to empower staff to take action on both point and non point pollution. Ability to convince the Oregon legislator to take action on non-point and timber and agriculture pollution, as they are wiping out fisheries. Hard working and dedicated to enforcing the law and fixing the reputation of Oregon as having one of the worst Clean Water Act programs in the country
29. The new director should have the integrity to adequately enforce environmental regulations even under pressure from corporate and political influences.
30. Be far more interested than the previous DEQ Director in holding polluters accountable!
31. IT IS CRITICAL THAT HE/SHE IS COMFORTABLE DEALING WITH DIVERSE GROUPS AND CAN PAY MORE THAN LIP SERVICE TO ETHNIC COMMUNITIES, INDIAN TRIBES AND ALSO BE ABLE TO WORK WITH THE GROWING NUMBER OF ENVIRONMENTAL GROUPS. WORKING TOGETHER IS CRITICAL

32. DEQ has been having problems of funding, staff morale and regulatory firmness for at least a decade. A new director must be able to revamp the agency and restore its regulatory presence in the state. This includes supporting staff, working with the Legislature and opening public process to legitimate community concerns.
33. The new director needs to get the DEQ back on track to protecting the environment, and focus on the vision of Oregon set out by the legislature this spring for sustainability.
34. Be tough on enforcement. Hold polluters accountable.
35. The position is subject to political pressure, the DEQ Director must be able to stand up when needed to this pressure from business, legislators and the governor in fulfilling the mission of the agency and serving the public. And at the same time, not render themselves ineffective or unemployed.
36. The new DEQ director must possess a strong willingness to take on polluters, engage in enforcement actions that send signals to polluting industry that 'business as usual' is over, and always put the public above the regulated community when it comes to difficult decisions.
37. The drive and knowledge to take Oregon back to the forefront of environmental sustainability by cracking down on known polluters and those yet unknown. This means someone who can convey the importance of sufficient funding to get that done.
38. Proven success in the regulatory field, proven ability to change the mission of the department from "customer service" to environmental regulation.
39. "Change agent" may capture it but I think the primary characteristic needed is vision and ability to build public support for policy initiatives.
40. Willingness to aggressively enforce environmental protection laws.
41. Working for the environment first and foremost...
42. DEQ needs a visionary leader. The new Director should be someone who is deeply committed to protecting the environment and who, with this commitment, will restore the agency's public image. As one of the leading states in the nation with regard to public concern and compassion for environmental matters, Oregon should have as the head of its primary environmental agency someone who reflects this important sentiment.
43. Environmentally friendly
44. DEQ has lost the public's trust. DEQ has failed to uphold its duty to protect Oregon's environment and stand up to polluters, including industrial, municipal, and domestic. DEQ's next director must have experience in serving the public interest and not bowing to corporate interests. She/he must have a dedicated commitment to environmental protection and firm convictions. She/he must have a strong sense of what is right, not just what is politically easy. Currently, DEQ seems to spend a large amount of time figuring out how to weaken or evade the law so polluters can maintain the status quo, e.g. the "human use allowance" in the temp standard. The new leader must have the ability to bring DEQ back from its current capitulation and make protect Oregon's environmental quality. DEQ is on the verge of collapse. The only way to regain credibility is to aggressively protect the environment through strong standards, more stringent permits, enforcement, and stopping the gimmicks.
45. Ability to evaluate changing needs and future environmental risks.
46. Willingness to stand up for the principles of the agency and its statutorily defined mission, which has been sorely lacking.
47. Experience in, understanding of, and demonstrated success working within the environmental or public health fields, specifically in the not-for-profit, government or academic sectors.
48. A commitment to improving the environment of Oregon!
49. The ability to push DEQ forward in a way that will effectively evaluate and enforce environmental regulations.
50. Demonstrated commitment to environmental protection, and an absence of conflict of interest issues stemming from ties to regulated industries.
51. Someone who cares deeply about the health of the environment and for future generations.

52. Independence from industry influence; willingness to put public interest ahead of corporate or development interests.
53. Unequivocal defender of Oregon's environment
54. An uncompromising and unwavering commitment to implement the agency's mission of environmental protection
55. Familiarity, if not direct experience, with methods and practices of scientific and technical evaluations and studies. Commitment to achieving the agency mission. Ability to craft a vision, provide support for staff to be able achieve the vision. Openness and responsiveness to staff driven ideas and programs.
56. Money management.
57. The new Director should understand DEQ's mission and be prepared to support it.
58. Ability to develop strong individual relationships with some key stakeholders, legislators, and senior management; ability to effectively use the executive management team as a resource for collaborative leadership and management rather than viewing us as just direct reports.
59. A sense of humility in not assuming that there is any one right answer to any particular environmental challenge. Honesty and transparency in dealing with stakeholders.
60. Have some science knowledge (since the DEQ should be making decisions based on the "science").
61. I strongly feel that the next director should be very well familiar with the State of Oregon. He/she must be aware of the tone of the legislature, the feelings of the people of the various parts of the state with government in general and DEQ in particular. This is not a job for someone from the other side of the nation that is only familiar with Oregon as a place on a map. I strongly urge the next director be hired from a pool of long time Oregon residents.
62. The next director must be a great administrator who can work with DEQ's programs and divisions to improve what we already have.
63. Ability to foster creative, thoughtful managers and staff who are free to explore issues and find solutions to environment problems without censure.
64. Science background, preferable an MS in a sciences Progressive leader not manager. A person who sees the environmental benefit not the economic constraint when developing agency policy and direction. We need stronger tools to protect and restore our environment, we need an environmental leader.
65. Must be friendly and open to staff and the public. Keep defensive behavior to a minimum
66. Needs to have the ability to make tough decisions, delegate when needed, be a leader, and not promote only those people that are inside the inner circle.
67. Technical knowledge, science background!!
68. Must be willing to meet ALL DEQ employees, no matter in what capacity they work.
69. Strong ability, or potential, to successfully traverse the legislative tight wire; to maintain DEQ as a favored agency in the eyes of legislators.
70. Experience with aligning organization resources, particularly central services like Information Technology, Accounting, and HR with strategic goals of the organization.
71. Provide solid support to staff and programs when they take mutually approved risks. This support should remain predictable and consistent, even when political or economic realities cause delays or changes. Once an approved project or initiative is launched, staff, managers and DAs can always feel the Director's support behind them. - Be brave in the face of an unfavorable political or economic environment Even through lean economic times we can still be clear about our differences of opinion with those who want to dismantle environmental protections. Fashioning the agency into a non-threatening doormat for fee payers is not a good strategy; it hurts us in the long run by eroding credibility and institutionalizing apathy.
72. The ability to stand up to political pressure when the "right thing" conflicts with political desires.
73. Understand the DEQ worklife, challenges and culture

74. This person needs to have the state of the environment as his or her primary focus. While compromises are, of course, necessary DEQ has been too quick to cater to industry demands recently. This should change. This person also should understand what it means to run a complex agency, such as DEQ. (e.g. What is the appropriate organizational structure? How are responsibilities effectively delegated? What are the steps to take to restore a faltering infrastructure?)
75. As Fred Hansen would say, the EQC is our governing board, not the regulated community. DEQ's mission statement under Fred was correct, our mission is to protect and enhance environmental quality. Human, fish and wildlife health should be first in meeting the goals and needs of the people of Oregon and not only the stakeholders who represent special interests. The Director will most likely need to be from Oregon first and NW second -- out-of-region will probably be a political hindrance.
76. a) Political savvy, (b) Understanding the importance of organizational health and making it a priority -- systems and processes need a lot of work and managers need more support, c) Clearly define a small number of key actions (i.e. business plans) and ensure "execution." What are the most important actions to accomplish within a given time frame; the agency cannot do everything that everyone wants it to do and do it well. The Director needs to ensure that critical projects and programs are tracked at the highest levels of the organization.
77. True leadership skills and not so much managerial since people so often confuse the two
78. Ability to use the media as a tool to prepare the ground and achieve change. Respect for the place of staff in decision-making and continuous process improvement. A harmonious record in union relations.
79. The new director not only needs to have a strong vision for the agency but must know how to implement it. To be able to stand up for his/her employees to the public. To know the latest technology so the agency can be back on the cutting edge.
80. 1. Credibility with the EQC, environmentalists and regulated community 2. Ability to successfully recruit qualified personnel
81. I would like to see a Director who considers enforcement of the Department's rules and Oregon law a priority and a necessity in doing the work of DEQ. I would like a Director who always focuses on the mission of this Agency above stakeholders' desires and political pressures. The Director is supposed to manage the Agency in a way that furthers our mission - to protect the environment - not to protect special interests, and I would like to see a Director that will do so.
82. Ability to recognize the different needs within different areas of the state and the good sense to recognize that different areas will require different approaches to ensuring continuing environmental quality.
83. Ability to identify, set, and communicate Agency's vision, programs and most importantly - priorities.
84. DEQ and the State of Oregon needs a change in DEQ leadership. DEQ needs a Director that can objectively determine what is needed to fulfill our regulatory commitments. The new Director must chart a much more collaborative course with a more diverse stakeholder group, and not continue to do business as usual with "traditional" key stakeholders (those that we regulate). The new DEQ Director needs to develop true partnerships to restore our environment utilizing a more effective team approach. The new Director needs to stop appointing select people to key positions without accountability - this approach hammers the morale, productivity, and longevity of staff. Please look at the last 5 years at DEQ! The new Director must have the courage to put the right people in the right job, and dismiss those people for poor performance instead of ignoring warning signs of an unhealthy culture that leads to low morale, decreasing productivity, and staff heading for the exit gates. The new Director needs to put needs to global warming and sustainability on the front burner, and allocate resources and develop operating plans to make a difference in these critical environmental issues.
85. Charisma Integrity Influential Credibility Decisive
86. I believe that the next director, in order to be successful, must come from outside of Portland. I think that most, if not all, people from Portland tend to forget about other key issues affecting the state, which they would not confront in Portland. For instance, most of the Portland area does not allow open burning, therefore the director does not experience daily problems with smoke and tends to forget that there even is a problem. This may be why the open burning program is so poorly funded. Yet, almost everyone outside of Portland has to deal with the lax open burning enforcement and problems of nuisance smoke affecting their daily lives. There are other examples that I do not have



room to explain here, but most people who live outside of Portland, feel that people in Portland are self-centered and do not realize that Portland is not it's own state. How often do you ever see news coverage on huge events that most people are aware of, that occur outside of Portland? The answer is almost never. Which is part of the reason I think it would be a poor choice to hire a director from Portland.

87. Someone who is an environmental leader, who understands the importance of the big ecological challenges we face (climate change, salmon recovery, sustainable economic policies). Also someone who understands the critical role staff and the union play in the ultimate success of any DEQ led program.
88. Knowledge of Oregon's environmental programs and regulatory scene. Honesty, integrity, and willingness to address internal management problems head on (including holding staff accountable for program performance and meeting commitments).
89. The relationship between the EQC and the Director is the key question for this hire. IF the EQC wants to run the decision making, they need an information manager that will bring the right information to the commission at the right time. If you want the best environmental outcomes on the multiple levels of engagement that the Director is involved in: outcome impacts, most effective and competent staff, legislative credibility you need a Director that is more than an administrative manager and has more actual power that the commission, but the skills to act as an effective partner. Very few such people exist and I would be surprised if Oregon could attract that person.
90. Maintain Agency credibility in the face of a public and environmental community that is critical of the way the agency is funded.
91. I would like to see the next Director have a desire to be even more inclusive of the community - I think Stephanie did a good job and I hope the future Director is also knowledgeable about Environmental Justice issues
92. We need support to make this agency environmentally sustainable, both internally as an agency, as well as externally to all of our stakeholders, including industry. It's no more "business as usual" - we need to be THE ENVIRONMENTAL LEADER in the state. We need a leader who will mandate we change the way we do business and take it to the next level to really make DEQ walk the talk for the environment. We need someone to fight for us to accomplish this new vision of sustainability with DAS and industry and we need it NOW!
93. The next DEQ Director should have technical skills and knowledge of Oregon, and Oregon environmental priorities. The Director should also have experience in environmental policies, and concern for the environment and the future ecology of Oregon.
94. Proven leadership, experience leading an administrative body, experience working with diverse populations and interests
95. Honesty and openness to hearing both "bad news" and "good news" and appreciation for the need to make informed decisions using factual information and hearing all sides of an issue.
96. Be an honest advocate for protecting the environment.
97. Excellent health, committed to reducing carbon footprint and greenhouse gases, and encourages agency staff and management to set similar example.
98. Besides having experience in the legislative arena, they need to have been successful in passing legislation. They need experience in moving an agency and programs forward with reduced funding. They need experience with public/private partnerships that don't jeopardize the integrity of the programs and agency. Creativity working in a bureaucracy. Integrity.
99. The director needs to be forward-looking and vigorous in the pursuit of environmental protection, especially considering that many powerful businesses have a vested interest in making more money by damaging the environment or the people's health. A good understanding of science is a must.
100. An understanding and sincere concern for the welfare of DEQ staff. Priorities, visions and strategic directions should not be created as only personal goals and/or administrative and managerial goals, but as realistic goals that consider staffing resources, staff integrity and staff morale, for all staff regardless of classification.
101. I think that at this time it is important to have business/industry experience Critical to be able to understand the key environmental issues in the future (ie climate change, resource constraints) rather than just understand the issues of the

past (regulatory, pollution control) An understanding of the "big picture" changes in our national business, societal and political approach to the environment A willingness to engage the business community in a new way as environmental challenges are met through innovation rather than regulation An understanding of the techniques to use "market forces" to institute change rather than regulations (i.e. eco-systems marketing, cap and trade etc.)

102. S/he must put high value to the agency's most important resources: its employees. S/he would believe the Agency, by its internal and external policies and deeds, must support the democratic principles this country stands for.
103. Ability to ensure that MSD is well managed and not left drifting for years like a rudderless ship.
104. DEQ Director work experience should not be limited to administrative duties.
105. Questions above are overly focused on stakeholders; the primary focus must be on the environmental needs of the state and the director ideally will rely on the professional expertise among DEQ staff for information to support priority setting and resource allocation.
106. Future directors need to have a clear understanding of this Department's mission, and the ability to keep the Department on track toward accomplishing that mission. Nowhere in the state statutes does it state that the Department's primary mission is to stimulate business growth. Perhaps rewording the Department's murky mission statement would help.
107. genuine concern for employees; willing to listen to opinions/advice that is contrary to their own thinking without taking offense and seeking retribution
108. Substantial understanding of, and proven ability to, implement internal management practices that develop the maturity of the organization. There are many aspects of DEQ internally that have been neglected over the years.
109. While an external focus is essential, it is also important that the next Director show compassion for and recognition of his/her employees.
110. The ability to be the leader that says, 'Yes. DEQ will enforce its regulations.' So that staff will also follow through. The ability to regulate in a state that has diverse interests.
111. To elaborate on the importance of the "change agent" item in the previous question, s/he needs to re-establish DEQ as an independent agent of environmental protection rather than a puppet for large industries. At the same time, s/he must understand that the future of environmental enhancement is through collaboration with a variety of stakeholders rather than through traditional end-of-the-pipe enforcement.
112. Should have a strong desire to get out around the state and communicate with both DEQ staff on the ground and with stakeholders outside Salem and Portland (as well as in Salem and Portland of course).
113. No
114. Have the desire to and be a leader by example in developing a culture of respect and openness for staff and a management/staff partnership toward achieving our goals.
115. The new director should be willing to listen to input from staff within the agency and be able to draw on their experience.
116. The next director should be strong and independent and able to stand up to interests that may impede DEQ's ability to fulfill its mission. The next director should also have a demonstrated interest in protecting the environment.
117. Ability to inspire, motivate and recognize agency staff.
118. Many staff is here for quality of life reasons instead of for money, so it is rather important to foster an agency culture that allows staff to feel supported and productive.
119. Standing up for what is environmentally right and standing up to what is not, even if it might be considered politically wrong.
120. Be a human. Respect and support staff. Do not be, and do not make, this agency a place of hypocrisy.
121. We need a leader who understands generally about various environmental challenges of our time and understands deeply the big picture of sustainability, including known & potential solutions. We need that leader to be able to

honestly motivate managers & staff and the public to put sustainability first. If they have knowledge of how the 'best employers' of our time (as opposed to 'old school' types) operate, that would be great! For example, some of our 'neighbors', from both the private & public sector, have demonstrated their awareness of cutting edge ideas like how a naturally lit, comfortable environment increases productivity. Also, if enlightened management approaches are advertised (like the FISH principle was), then this leader needs to make sure that the Deputy Director (or someone) evaluates managers on following that enlightened path (I'm mentioning this because I have a very militaristic manager at the moment, which is very strange here at DEQ---it does not jive with the suggested image set forth by HR and the [former] deputy director in recent years. The person needs to be sincere, persuasive, kind, determined (in a cooperative way), open to innovative solutions, interested in and able to listen to ideas from others, practical but not stifled. They'll need to show that they value the experience of others even while encouraging new directions. We need the leader to encourage [and reward] program staff to [and for] partnering with other entities toward the common public good. Ideally, the person is an active member of the Oregon Natural Step Network, so they are already aware and in relationship with some of the true leaders in our state.

122. ability to encourage and inspire DEQ staff by advocating for the agency and the environment first and foremost (and regulated entities/stakeholders second)
123. Courage to fight the good fight for DEQ to carry out its mission for the environment and the strategic experience to win the fight.
124. Understand a variety of approaches to environmental problem solving, ranging from regulatory enforcement to proactive cooperation.
125. The director needs to have excellent communication and political skills.
126. The Director needs to have the ability to connect with staff and be and get involved with issues occurring in the field. The Director needs legislative skills, certainly, but more importantly needs to connect with staff who do the work.
127. The new Director should have a progressive vision for the agency and a clear understanding that the paradigm of natural resource management is changing to landscape approaches and sustainability.
128. Have a solid environmental background; have graduate level education; have no political baggage; care about people
129. I would like for him or her to care about her work force and to encourage education and promotion from within our agency. In this time of high turnover, there are many employees who are working hard to learn more. Retaining employees should be a high priority.
130. The knowledge of this agency and its work force should outweigh any "flash and dash" perceived by some other national position or recognition. The last nationally known person didn't even know our names or ever connect with us to know our value and values.
131. Ability to accurately discern level of competency in others. Interpersonal relations. Ability to direct the right work to the right people. Refusal to begin a project without having an implementation plan in place. Follow thorough!!!
132. Politically acute; able to weigh competing perspectives from environmental interests and regulated community
133. - collaborate with DEQ staff; solicit staff input. - weigh science appropriately/ deliberately in decision-making.
134. The Director should be supportive of the DEQ staff and understand the issue before blaming staff or making a decision. The Director should be more interested in the mission of the agency than making herself look good.
135. Be able to work well with the legislature.
136. I'd like to see several things in a director as well as top level managers: - a willingness to acknowledge the positive role the union plays (e.g., lobbying for agency resources, campaigning against VIP privatization and various anti-public employee and anti-environment issues, fighting for decent contracts, etc.) and the ability to see the opportunities for collaboration with the union; - an interest in facilitating a broad discussion about how we can benefit the environment in a state and world that has changed dramatically and may require rule/statute changes and new strategies for how we do our work in each media and across programs; - a willingness to be the state leader on promoting sustainability and tackling climate change; - a willingness to take riskier positions, for example in how we do permitting, how we prioritize our limited resources, how we respond to business pressures; - an interest in making our constituency more Oregon general public and NGOs-friendly and less business friendly (I'm not against business-friendly but I think we

overdo it); - a less top down approach - DEQ employees are demoralized when they see their colleagues leaving for higher paying and/or less stressful jobs - that makes it even more important that we all share a vision of what we can accomplish as a state agency and the only way we will share a vision is by helping to create it. Our new director should be skilled in and committed to inclusive decision-making.

137. Flexible. Able to be personable with staff and not distant (as experienced with other agency's director).
138. The new Director must have integrity and vision and be willing to truly work to protect the environment, and not just in name only. He/she must be willing to listen to staff (non-management) about the health of the Agency and to do what is right to make it whole again, to include, reprimanding or firing "friends" and/or colleagues who are a major part of the problem, and ensuring that managers and high level staff are hired for their abilities and not for their connections. He/she needs to know more about what is going on within the Agency so that reasons for uncommon issues such as a massive turnover in staff, are not passed off as natural attrition or a search for more money. If the new Director does not have the pulse of the Agency on his or her mind and as a part of their vision for a healthy environment, then we are all doomed to another term working for an agency of mindless drones.
139. Honesty and Integrity
140. A warm personality and connectedness to staff, and a style that doesn't micromanage. Also, the agency appears to need at this time someone who is out of the usual mold of "career state legislator/administrator," although I know those qualities are useful. An outsider may be best at this time!
141. Should be able to associate both with the Technical Community as well as the average person when communicating with them. A need to know the workers who make the program go is very important and to be able to openly speak with them without double talking and to openly listen to the opinions of those who work for them and the public.
142. Willingness to listen to all comments, good and bad.
143. The Director needs to be a good human being, with strong moral standards and emphasis on life outside of work, as well as a vested interest in protecting the environment; willing to practice what we preach. I'd like to see a Director that is excited about protecting the environment and passionate about helping others to protect the environment through education and volunteerism.
144. Charisma would be fairly important to this person, and an ability to identify with the workers from the lowliest clerk to the deputy director.
145. The questions addressed relations and interactions with outside agency entities. No questions were asked about the relationship of the director with staff.
146. The new director should appreciate that ODEQ is a scientific agency and that technical staff are the backbone of the agency.
147. Ability to promote and create a friendly, open atmosphere of trust. Ability to incorporate new technology and use it effectively to communicate with staff. Knowledge and experience with rural issues and rural values.
148. Be a strong advocate for the environment with special emphasis on water quality.
149. Must not be a micro manager. Must be able to tell staff what is expected -- rather than requiring them to guess. Must not be defensive -- but willing to listen to staff input. Willing to work with the Union and address low staff morale. Willing to implement the laws and do what is environmentally the most sound solution -- rather than trying to make industry happy.
150. Strong advocate for the Agency's employees.
151. Reasonable in deciding when more information must be sought and when an analysis needs additional information to make an informed decision. Realizes that some necessary actions to protect the environment can not be accomplished collaboratively. Realizes that a tough position on individual enforcement matters is necessary for credibility of the regulatory program.
152. Strong scientific background.
153. The capacity to envision the future role of DEQ. The willingness to listen. The ability to learn. The ability to alter direction. The ability to clearly articulate action steps relative to changes made.

154. Experience working with EPA. Insight into national issues and trends.
155. Should have a sound understanding of the science that is used to determine policy and evaluate our environmental state. Ability to communicate with legislature to fix the problems with our system like the fact that the state AG does not work for us, we have to pay his office, so the polluters who do the most damage can be held accountable.
156. - walking the talk -- DEQ is an environmental agency that needs improvement in sustainability and hiring folks who walk the talk. Walking the talk should be taken seriously. - strong support for staff's work and protecting the environment -- we need someone who will not waiver in support of staff's decisions and will not fold to pressure from industry or politics. The new Director should be able to balance our number one priority with industry and political requests/backlash. It is the Agency's utmost responsibility to protect the environment and human health even if it may be controversial. - Ethics!
157. The director needs to be able to quickly grasp the nuances in complex technical issues.
158. They should be very inspirational and motivational to their staff. We want someone who leads by example and who continually motivates staff by making staff feel like they are part of the team.
159. Understanding of the importance of data and science in the decision making process. Tendency to hire the best available person.
160. Knowledge and support of successful public involvement practices. can lead by taking bold stands
161. Must place protecting the environment at the top of her list of priorities. Must invite intellectual diversity in her inner circle and avoid creating a bubble of close, like-minded advisors.
162. Should be a people person - not a process person. Needs to encourage staff to think outside the box. Supportive of outreach with all Oregonians (read -not just the permittee) being as important as the permit 'beans'. Ability to understand viewpoints that may differ from the original vision, and incorporate those when possible. Should be supportive of removing work from the staff's plates when the workload overfloweth.
163. Bilingual and/or person of color would be great. DEQ as is most of Oregon is consistently behind the curve of diversity and fall short of its own goals. Also, someone who is already familiar with how DEQ functional and what its authorities. Please beware of conflicts of interest or at least the perception of, choice should not be an industry or have other special interests. Other regulatory agency experience should be a hard fast requirement.
164. Willingness to listen to staff- communicate with staff...involve staff... establish state wide consistency within programs and guidance
165. Familiarity with our legislature, governor and EQC
166. Personality Traits 1) Not afraid of, or discouraged by, not being liked by everyone. (I envision that major structural and staff changes may be necessary, and that business interests may get upset at new, more consistent treatment); 2)Can see multiple sides of issues, but weighs the environmental perspective more than the political; 3) Has a deep passion for the environment; 4) Can take criticism and turn it into a personal improvement; 5) Knows the difference between something that is high priority and something that is urgent and when and how to respond to external requests. Work Experience 1) Has worked on ground level and understands how rank and file workers deserve to be treated, and what motivates them to strive for excellence 2) Has proven experience coming into an agency where staff is disgruntled, integrated systems are lacking, communication between regions and divisions is poor, and public perception of the agency is skeptical. 4) During their tenure major improvements towards staff morale, public perception, and mission related excellence were made. 5) Has proven experience cultivating a team of experts on which to rely for technical, human resources, technological, and, managerial expertise
167. An awareness and appreciation for the role of public information and the importance of providing up-to-date information and services through the DEQ website.
168. The ideal candidate would understand the political realities in Oregon and be able to forge effective relationships in both political parties, with industry, environmental stakeholders, and other natural resources agencies.
169. The Director should be an individual who understands how to set the agency's organizational agenda and guide it to complete those goals; it is not as important that the director oversee every detail involved in this process, which is the province of lower level managers and staff.

3. What critical issues or key challenges do you believe the new Director will face?	
<i>answered question</i>	178
<i>skipped question</i>	56

**Comment Text**

1. Take an under funded agency and find a way to enforce the environmental rules of our state and punish polluters
2. Making the protection of the environment the priority of DEQ Putting the environment first.
3. One critical issue is the apparent focus of the DEQ on "educating" violators rather than enforcing our laws. A priority on enforcement will require a critical shift in the thinking of many at DEQ. In addition, funding to ensure strict enforcement is critical and the new director must be ready and willing to prioritize seeking increased funding for the agency.
4. How to deal with climate change and environmental justice issues
5. Standing up against industrial might for the good of Rogue Valley residents.
6. Increasing pressures to lessen environmental projections in light of strong growth influx of people to region; to increasing trade-offs between dealing with negative impacts of material society on water, land, wildlife and peoples health and well-being. Need to work collaborately with other state and federal agencies to achieve best results for all Oregonians.
7. Challenges most probably from pressures from businesses / entities that have been allowed to continue polluting the environment. Director should know and remember that the largest group of STAKEHOLDERS is all breathing and drinking humans and animals. Flora and fauna.
8. Funding to do DEQ's job and meet the public's expectations. Water quality issues.
9. Making sure that business who pollute are held accountable and not enabled.
10. Changing the status quo.
11. DEQ has lost public trust in recent years by failure to provide effective oversight and passive/cozy relationships rather than requiring compliance with laws and regulations.
12. Finding the support from the public, elected officials to demand public financing necessary to achieve environmental quality for all Oregonians.
13. Holding polluters accountable for their destructive activities and behavior; Global Warming;
14. Increase regulation to clean up air and water; Retard development outside urban growth boundaries; Regulate emissions of the transportation system; Preserve the fisheries;
15. Water and Air quality standards and the enforcement of them.
16. See above; and: restoring effectiveness & credibility to this cuckolded agency; doing what must be done to reverse the water quality losses & missed opportunities of the past 2 decades, no matter whom this p\*\*\*\*\* off; establishing measurable & enforceable standards for "best practices" & TMDLs
17. The climate DEQ operates within is changing. The public is beginning to demand a more effective agency; some of the past budget cuts have been restored; and anti-environmental regulation, pro-industry interests have less control over the legislature and DEQ than in recent years. The new director should capitalize on these changes and keep in mind that

DEQ exists to protect the public good. The new director will have to provide confident leadership and support to staff during a time when the organizational culture must change.

18. Creating, implementing, and enforcing tougher environmental standards for Oregon.
19. Ensuring ALL waterways in the state comply with applicable water quality standards in the face of a rapidly increasing population will be difficult to meet, but is paramount to the quality of life in Oregon.
20. Funding, improving Clean water Act implementation and ENFORCEMENT!!!!
21. The previous director didn't allow staff to protect environmental quality.
22. DEQ is a weak protector of Oregon's environment. The next director needs to be a leader and not just an administrator.
23. Regulation of GHGs
24. Overcoming years of underfunding and staff morale. Changing culture within DEQ to be protective of the public's interests. Actually enforce regulations on the books, challenge the regulated community to step up and become a part of the solution.
25. see above also developing anew profile for the legislature likely to enhance future funding
26. Institutional inertia in the direction of permissiveness to environmental foes.
27. The most fundamental issue is that the Director must restore the public's faith in DEQ as an agency that has the will, resources, and expertise to safeguard Oregon's natural resources for future generations. Currently, the public views DEQ as an agency that serves the special interests of the regulated community to the detriment of the public interest.
28. Overhaul the department's approach to enforcement. It is an embarrassment to Oregon and an abdication of the department's mission if one lightly staffed non-profit (NEDC) can recover more in penalties than the entire water quality enforcement arm of the agency. Enforce the laws.
29. I am sure the new Director will have funding problems, but they will also need to have the backbone to deny permits that are not in the public interest, although supported by powerful lobbies.
30. Not sure.
31. Getting the water pollution permitting system up to date and enforcing it. Beginning to protect water quality standard by enforcing laws against non-point polluters and agriculture based point pollution. Paying attention to the Southern half of the state. Fixing the reputation of Oregon as having one of the worst Clean Water Act programs in the country. Environmental Health and Environmental Justice in Oregon also needs addressing.
32. Right now, the Oregon DEQ inadequately enforces environmental regulations, and my understanding is that many Oregonians are disappointed with ODEQ. The new Director will have to be strong and intelligent enough to turn the agency around, and ensure it is doing its job of protecting our environmental quality for future generations.
33. The new Director must restore the faith of the educated public that the DEQ is more than a hollowed out shell for polluting industries.
34. OREGON HAS PLAYED TO INTERESTS OF BUSINESS DEVELOPMENT AHEAD OF ENVIRO GROUPS. DEQ NEEDS TO ENSURE "ENVIRONMENTAL QUALITY" TO CITIZENS OF THE REGION.
35. The most critical need for DEQ is a turnaround in it's willingness to strongly enforce regulations. At this time the agency is in most cases unwilling to take action against polluters. It views permit holders as clients and their job as working collaboratively with clients to solve the clients' problems. This may be a good approach for many permit holders, but for the percentage of permit holders who are bad actors, the DEQ must be willing to step up with strong enforcement.
36. Because DEQ has been underfunded, and weak in its regulatory stance for more than a decade, the agency is fulfilling very little of its actual statutory function. The new director will face the challenge of restoring funding and making DEQ the actual guardian of the state's air and waters, rather than simply renegotiating expired, weak permits and granting new permits to polluters without sound legal basis. The Director will also need to begin enforcing laws on clean-up and clean water, in a way that has not happened for many years.

37. Ocean wave energy regulation, energy issues in general, land use and forestry issues, and repairing Oregon's impaired/damaged waterways. I also think the new director will have to be visionary and ignore the influence of large businesses and strictly economic interests and do what is best for protecting the environment - a difficult task indeed.
38. Enforcement, enforcement, enforcement... lack of adequate enforcement leaves the agency and permittees subject to litigation. DEQ needs the will and the funds to adequately protect the public's interests.
39. 1) Forest Practices - The Bush administration is trying to roll-back forest protections along streams and rivers on public lands, which will harm water quality in Oregon. The DEQ must be willing to stand in the way of this to prevent harm to Oregon's water quality. Further, private industrial forestland practices under the Oregon Forest Practices Act and the current management of state forests are inadequate to protect and improve water quality. The DEQ must also be more aggressive in setting policy on private industrial forestlands and state forests. 2) Industrial Agriculture - Under SB 235, the DEQ now has the authority to regulate air emissions from large 'concentrated animal feeding operations' (CAFOs). Industrial animal agriculture a major emerging environmental issue in Oregon affecting quality of life for surrounding neighbors, water quality and special places such the Columbia River Gorge. Factory farms that house hundreds of thousands of chickens or tens of thousands of cows in confined environments create very serious environmental and public health problems. The DEQ cannot merely defer to the Department of Agriculture, which has a completely different mission when it comes to these matters, in setting policy to protect public health and the environment when it comes to large CAFOs. Stronger rules than currently exist must be established to protect both air and water quality when it comes to permitting large CAFOs in Oregon, and the DEQ must be willing to deny permits for new or expanding CAFO's. 3) Global Warming - the DEQ must be willing to deny permits to companies that propose new or existing facilities that contribute significantly to global warming and greenhouse gas emissions. 4) Persistent toxic pollutants in rivers - with the passage of SB 737, the DEQ has a clear timeline and an opportunity to begin taking a statewide approach to reducing persistent toxic pollutants from a variety of sources. The DEQ should be aggressive in its approach to identifying pollution sources and developing solutions to stopping or reducing this pollution. This push should not have to come from the outside as it did with the groups that had to lobby for SB 737. 5) DEQ had become too close to the regulated community and is too fee dependent. DEQ needs to find independent sources of funding to fulfill its mission and it must put people over polluters in all instances.
40. Minimal funding.
41. Strengthening the DEQ's commitment to environmental protection. While it is important to promote industry & other interests, it is also important to preserve the quality of Oregon's environment.
42. I think DEQ needs to define itself and make clear that it is a leader in protecting Oregon's environment. I think other issues I've heard of, e.g. morale, will go along with that.
43. 1. Demoralized staff. 2. Unenforceable MS4 permits. 3. Culture of complicity enabling polluters.
44. Regulating greenhouse gases! How to punish, instead of license polluters.
45. He/She will need to take the reigns on formulating an action plan to combat Oregon's contribution to climate change, including exercising DEQ's existing (yet unfortunately un-utilized) authority to regulate greenhouse gases. Inaction and passivity are no longer proper nor justified.
46. Moving the DEQ from a facilitator to an enforcer.
47. Separating the regulatory aspect of the job from the necessity to protect the environment. Budget problems to enforce the environmental laws.
48. First, identifying laws/rules that need to be updated. Second, striking a balance between helping industry comply and punishing violators. Third, remaining strong on imposing fines and penalties, including allocating money to state conservation programs instead of general funds.
49. Regaining public trust in DEQ Weaning DEQ from corporate control Developing an active a viable air and water quality sampling program Strong funding from legislature Reviving DEQ's anemic enforcement division - the staff is good, they need more resources and more assertiveness Developing water quality standards that protect designated uses Treating the public and public interest groups with the same respect and dedication of time as industry. Create an open and fair public process. Increase morale for DEQ staff. There are many dedicated and talented people at DEQ who want to do the right thing. The new director needs to cultivate the inherent public interest, instead of quashing it.



Creating

50. Protecting and enhancing air quality in the Columbia River Gorge National Scenic Area.
51. As usual, not to buckle under to pressure from industry and some go-between politicians to conform to the desires of industry to pollute in spite of laws restricting the same. The DEQ and the EPA are the only groups able to exercise the important job of protecting the public interest in clean air and water and land. When that job is exercised by groups too heavily influenced by polluters, the result is the environmental disaster seen in China, India, and, previously (no longer) in Eastern Europe. One of the few mandatory roles for firm and independent government action in a capitalist society is for an independent agency to be left alone to regulate and to control the emissions of polluters, because control of such emissions can not happen by way of the normal workings of the marketplace, which does have the ability to correct most other aberrations in a capitalist society but not pollution (since the cost is not imposed on the polluter without government action). The DEQ therefore plays a formidable and important and singular role that must be independent, firm, and certain.
52. 1. Successfully working with environmental and public health groups to counterbalance the overwhelming influence regulated corporations presently have within the regulatory agency, OR: 2. Successfully separating DEQ regulatory activities from corporate influence, effectively making DEQ a "watch dog" from DEQ's current "lap dog" status; 3. The DEQ, EQC and legislature will face increasing pressure from the public sector to reduce corporate environmental impacts on human health, including those from climate change.
53. capture of DEQ by the regulated entities -- DEQ needs to work more to enforce the pollution control laws and policies rather than just pander to industry
54. The challenge of enforcing regulations in the face of pressure to not do so.
55. DEQ's reputation has been under fire - the new Director should be prepared to focus on enforcement and deterrence.
56. Global warming issues should dominate the work. Everything the Director faced before should be reconsidered with the issue of global climate change mitigations.
57. In the past DEQ has been weak on enforcement. I've experienced this directly. When rules are violated, only a wrist slap (at best) is administered. This fosters a disdain for DEQ policies by the regulated.
58. changing morale/culture at DEQ
59. Political pressure to compromise and waver.
60. The environmental challenges are getting tougher and more complex, ongoing matters like nonpoint source pollution but also global warming. Resources will remain tight to achieve these goals unless the Director is able to build the support to make it happen.
61. Staff morale.
62. Overcoming the perception that DEQ does not protect the environment
63. Need to quickly establish key relationships with the EQC, GNRO, key legislators and Capitol staff (like LFO), other NR Cabinet agencies, EPA, and major stakeholders. Also, given the likely timing of the start date, the director will need to quickly understand the developing budget policy packages and legislative concepts and then be able to shape them as necessary.
64. Increased pressure from environmental interest groups Continued conflicts relating to funding
65. The public image that the Oregonian promoted recently that the DEQ is funded by the polluters so that we do not enforce regulations on them and are not protecting the environment.
66. Some of the permitting programs (specifically those tied to Fill/Removal permits) have become so cumbersome they are causing environmental damages due to projects not being done in a timely manner.
67. Bringing the various parts of the state together, the director will need to know how the folks of Jackson County differ from those of Umatilla and those of Clackamas. He must be aware of the problems of trading fish for power, how to handle Indian demands, how to stave off the attempts of AOI to lessen environmental laws.
68. The dysfunctional nature of DEQ. Program administrators are territorial and few understand what is best for DEQ or

Oregon v

69. Climate change and population growth in Oregon, building trust with the public and regulated community, building a dedicated, involved staff, replenishing manager positions with managers who know how to manage and do work.
70. Toxics, emerging contaminants (those w/ no regs yet), push back from point source community
71. Getting the Public and the Legislature to see the Agency's value. I think the needs of the Public and more direct interaction with the public has been ignored recently
72. DEQ is having some what of an identity crisis. Is this an agency for environmental protection or a regulatory governmental agency. Do we protect industry or do we protect the environment or are we in-between? A clear role for DEQ needs to be outlined and defined. The impact internally of having so many interim department heads within DEQ is huge and is having a negative impact on staff.
73. Take advantage of public's willingness to fund programs.
74. Working with the Governor's office.
75. Public perception and increased expectations; maintaining a high level of staff expertise.
76. Restoring faith in upper management. Realignment of executive team to reduce it in size to allow for easier consensus decision making to drive important strategic shifts while still including the input of staff from various levels.
77. Potential recession, population growth, maintaining an activist role.
78. Ongoing response to those who don't feel DEQ focuses resources properly or gives in to those we regulate (ex: Steve Duin articles, Lakeside, Astoria, etc).
79. Demands to be an environmental leader everywhere DEQ acts.
80. The biggest one is figuring out how to recover from the dismal state that the organization is in now....
81. Making decisions based on sound science first and secondly running through the political filter. Must be proactive while involving/informing the people and stakeholders of Oregon.
82. Loss of experienced and knowledgeable managers and staff and lack of institutionalized succession planning. Degraded infrastructure and systems that do not support people well. Manager burnout. Labor management tensions. Challenges in delivering on "everyone's expectations" -- the agency budget does not support all the work that various interests including the legislature and the Governor want the agency to do. This will require changing program priorities and clearly communicating the reasons.
83. DEQ Culture which is extremely resistant to change.
84. Oregon is ready to do more for the environment. The legislature has changed. We are getting more and we can and should expand the agency's efforts to new programs. There may come a time when the new Director can make good the incoming promise of the last two: we will address environmental priorities, not just run programs.
85. Funding always an issue
86. The agency needs to get back in the good graces of the environmental communities. The public no longer views the agency as being its watchdog and we need to gain back the trust from the public and the environmental communities. Morale is also way down in this agency. We have lost a lot of good staff.
87. Balancing pressures for environmental enhancement with other sustainability factors.
88. 1. The drive toward zero pollutant discharge and its impact on standards development and implementation and the ability to collect reliable science upon which to base new standards. 2. Lack of time and properly trained staff to effectively implement programs and discharge requirements and avoid lawsuits 3. The complexity and legal issues associated with effectively combining holistic watershed based compliance mechanisms with specific numeric based point source limits. 4. A regulatory agency credibility gap
89. I believe the Director will continue to face political pressure, especially from those who wish to loosen environmental laws and standards. I hope the next Director will stand firm and not fold to those pressures. The state of Oregon's environment and the morale and longevity of the Agency's workers depends on it.

90. Safe and efficient disposal of e-waste
91. Service to the regulated community is really important. Core programs simply cannot be lost.
92. A change in where DEQ's funding is from.
93. Improving the health of DEQ so that we can do our jobs effectively is the key challenge. DEQ has a legacy of less collaboration with diverse stakeholders (we need to build many more bridges), and commitment to obtain the best people to do this important work. DEQ needs to get and keep good technical people. DEQ needs to conduct national recruitments for technical and management positions. This appointment nonsense must stop! Managers must have technical expertise and great people skills - those that have a history of treating people unprofessionally should not be managers. DEQ needs to objectively evaluate the skills and performance of appointed managers and staff - then dismiss those that are not effective at their jobs. The new Director must have the courage to take the actions necessary to rebuild and create an effective organization that is an enjoyable place to work.
94. I think the biggest challenge is to establish unity among a fractured group of stakeholders (the environmental community, the regulated community, the public, the Governor, legislators, EQC, etc.) behind the agency's long-term goals, particularly around high priority environmental and public-health outcomes. Then, the challenge is to stay the course (unless there are emerging threats) and use those long-term goals to help refocus the agency and our stakeholders when we start to veer off course. The director should emphasize environmental or public health benefit foremost, and highlight trade-offs we're forced to make when the Governor or Legislature or stakeholders ask us to participate in activities that do not support our long-term goals or which focus on process over results. Although I'm change averse, I think another challenge for the director is to foster a culture within the agency that fosters creativity in thinking about our work. This could be as fundamental as assessing whether we're even doing the right work to achieve our goals, or as mechanical as finding more efficient ways of doing business (without sacrificing effectiveness). For example, we've been hearing about these new techniques (six sigma? Lean?) for improving organizations, but we haven't seen any tangible evidence that those processes could work at DEQ, nor any momentum in that direction.
95. Staff morale is low. Many staff do not feel supported by management.
96. Educating the public on rules and laws before they become a problem. A lot of the public are unaware of rules that they must abide by, because the DEQ has done a terrible job at educating the public on these rules. Another thing that I would like to see happen, is that job positions are actually in areas where the employee is going to do most of there work for the public. For example, it makes no sense for someone in Pendleton to be an inspector for a source in Lakeview. Or, a water quality inspector who is in Eugene for a source in Aurora. We waste so much time and money by these lame-brain ideas. The next director needs to crack down on telecommuting. I am never able to get in touch with someone when they telecommute. It's just a free day off for them. What a waste of tax dollars! Finally, the new director needs to have some common sense, which is sometimes hard to find in government. The new director needs to not back down from industry and agriculture and needs to manage everyone equally. Why is it that agriculture can make the entire Willamette Valley dusty from farm practices, but regulate a rock crusher for a little bit of dust? It is because we can stick our hands in the pockets of these rock crushers, but the right to farm act will not let us do that with ag. I am a sixth generation farmer in Oregon, and I think this is unfair and needs to be changed to make it equal for everyone.
97. The political landscape is still very much determined by industry and business interests, especially when it comes to agriculture and forest management impacts on water quality. We need a director that will use science as a backstop for protecting Oregon's environment. Every time the agency makes a politically expedient decision at the cost of environmental protection all Oregonians pay the price.
98. Staff technical competency, training, and succession planning. Increasing litigation ... especially by 3rd parties. Potential for EPA oversight (wet weather issues etc.) Toxics - multi-media and cross-media, and compounds of emerging concern/microcontaminants. Non-point source control (especially agriculture) Fish Consumption and implementation implications
99. Agencies are always at the end of the pendulum. Right now the press is convinced the agency needs to be more pro-environment. Don't silo this agency into being the environmental hammer of the state. If you do you will set up a counter reaction like we had in the early 90's. Aim for being the best environmental agency in the country with the most innovative ideas on how to get to win/win. Over time that will result in the cleanest and safest environment in the country. If these surveys serve any useful purpose, you have really missed the boat. You should get about the same

cross section of opinions here you get at your meetings and in the public policy area. You need to hire a director for ten years from now results, not a director that meets today's needs. Carbon reduction is going to change the world we live in on a fundamental level getting there without a political meltdown will require a skill set not yet determined.

100. Enforcement, funding, a more balanced use of scientific evidence in our decisions.
101. water quality issues, air toxic issues
102. Climate change, air pollution and good citizen involvement will be key
103. Taking our agency to the next level and change the way we view our relationship as an agency to the environment - - we need to be more progressive and proactive. We've got some relationships built with the legislature - we can't stop now. We need someone to push the envelope for new technology and more resources, while fighting to improve the livelihood of DEQ's employees.
104. Balancing legislative concerns for business growth with the need for environmental safeguards. Dealing with new issues, such as global warming, exporting recyclables that present environmental danger, and importing good that contain ban substances. The future issues become more important or equally important as the regulated fields today. With knowledge the public may want more aggressive programs to safeguard the environment.
105. Restoring funding to critical DEQ programs Seeking legislative changes to restore DEQ's enforcement authority Working with local communities to upgrade much needed infrastructure Work collaboratively with other agencies to develop a global warming plan
106. Budget vs. the Environmental benefit
107. 1. Rebuilding the morale of the agency 2. Providing strong leadership and vision for the agency in light of today's major environmental concerns related to climate change and toxics in the environment and consumer products, and depletion of resources. 3. Meet the challenge of addressing environmental and health issues for all Oregonians as well as consideration for the concerns and issues of those we regulate in order to protect the environment and public health - a tough but necessary balance in order to be truly successful.
108. 1) Gaining respect from the staff. 2) Avoiding conflict of interests with the regulated community. 3) Replacing the old guard of managers with new managers that respect their staff and care about the environment.
109. Maintaining or enhancing agency budget (funding sources). Retaining high quality personnel. Dealing effectively with changing political, economic, and environmental climate.
110. Mixing zones, clean air, new sources of funding
111. The new director will need to be able to deal with coming challenges before they become a crisis. This takes foresight and a willingness to push government to prevent crises instead of just reacting. This includes climate changes, endangered species listings, peak oil/energy issues, environmental effects of social dislocations, and more. We need to take a strong stance to reduce water quality impacts due to forestry, agriculture, and development.
112. One of characteristics in Question #1 was "Agent of Change". This appears to infer that change is always good, needed, and the more you have, the better off you are. This can lead to an overriding, even egotistical and insecure impulse to change or reorganize everything in one's own image so as to meet the expectations that you are an agent of change. I think the new Director faces the challenge of being truly objective, and restraining him or herself from falling into this trap. Many good things were started and implemented under the current Director. Many things are not broken and do not need fixing. Fairly and unselfishly sorting this should be a key challenge.
113. The incoming DEQ Director will face profound changes in our approach to environmental policy. In the past three decades we have relied on an established dynamic of regulations that constrained industry and a DEQ that worked to monitor and control. Now, in order to solve environmental issues such as global warming, we will need to "inspire" and motivate the business community to go deep into its business strategy to create new products and change internal procedures to reduce carbon and waste etc. In some ways the DEQ will need to find ways to be a cheerleader, or at least get out of the way. Regulations, in many cases, will drive and inspire these market forces, so a portion of the business community will embrace them. At the same time, we will see businesses that are "losers" in this movement and will double their resistance to regulations. It will be important for us to find ways to help these businesses to go through the transition without reducing our commitment to the environment. This will take some creative thinking.

114. Retain good quality work force
115. Coping with the aftermath of the huge salary inequity debacle created by DAS and the governor.
116. Increase efficiency within DEQ, dealing with an unhappy work-force, & staying focused on the environment in an economic driven state.
117. Disempowered staff, inappropriately empowered stakeholders.
118. This Department's long term inability to remain focused on its intended mission has likely contributed to its poor public image. Future directors need to be cognizant that the public expects no less from a public agency than is expected of themselves.
119. organization structure - the regions operate as semi-autonomous fiefdoms and it is not clear at all who determines policy, who makes the decisions - too many cooks in this kitchen
120. To fix the public image that DEQ has as a "lap dog to industry". Help to establish Oregon as a leader in environmental protection for the country.
121. Important to gain the trust and respect of Oregon citizens in general. Many think we've sold out to industry. Economic growth should be in harmony with sound environmental practices.
122. Rebuilding staff morale and trust; having courage to ask for more resources
123. DEQ is meeting a lot of its goals and promises to the legislature unfortunately that also means we have caught up with regulating those that are connected to the legislature. Let DEQ do its job and regulate as we promised we would.
124. Protecting water quality (and quantity) from further degradation, both surface water and groundwater, will be by far the biggest challenge. This should be his/her primary focus.
125. Toxics and nonpoint source pollutions (not limited to toxics) across all media. Increasing water availability while protecting ground and surface water quality.
126. Labor-management relations
127. Getting resources to do our job, and communicating effectively what we will and will not do if we do not have the resources to do everything. Trying to foster agreement amongst stakeholders where we can and understanding of our actions/decisions where we can not attain that agreement.
128. Staff morale is low, but can be salvaged. Restoring morale will be a challenge.
129. The next director will have to face an increasingly critical and hostile public that perceives the agency as falling short of its mission.
130. Defining the core role of the agency in the future of environmental management.
131. Advocating for staff with DAS (e.g., staff morale concerning the Governor giving managers raises, but negotiated low raises for staff); devise a strategy to get Steve Duin (Oregonian newspaper) to quit using DEQ as his whipping boy; establish a good reputation with the legislature to continue the progress with them that Stephanie made.
132. A key challenge will be gaining the full support of staff relative to doing the right things for environmental protections.
133. Handling public sector vs. private sector issues -- i.e., how to serve the public well without hamstringing business; how to accommodate business without kowtowing to them.
134. Low morale. Knowing which managers are good, and which ones are poor.
135. Morphing how we spend our time into more broadly reaching and affective actions that will address environmental priorities [like climate change). Enlightening managers to act in enlightened ways. Showing stakeholders the value of implementing changes toward a sustainable culture. One way to do that would be to really get the stories [of case studies] out there---like show-casing things like Kettle Food's' solar installation &/or having our staff attend events like conferences for city managers & play match maker roles where we could get someone from a successful program in one town together with someone from another town with a need of such a program. Etc, etc, the sky if the limit.
136. lobbying from regulated entities - see above

137. Staff morale. Lack of trust between staff and management. Lack of focus on environmental outcomes. Expectations too high for our resources.
138. Urban and non-point source water pollution, which receive little attention from DEQ, with respect to the proportion of pollution they are responsible for and with respect to future growth potential.
139. Environmental challenges: global warming, toxics, new approaches to prevention of pollution. Otherwise: we might be facing a recession and the new director should be skillful in producing more with less. The agency needs to go electronic and must decide how to provide e-services--which will demand more resources and more expertise.
140. I believe the key challenges the new Director will face will be a demoralized workforce; an aging workforce; global issues that will affect the economy and environment, and the lack of regulations to address those global issues.
141. The new Director will be faced with how to guide DEQ into a leadership role on environmental regulation, and how to prioritize the use of limited budgetary resources.
142. Political wrangling; public misperception; budget vs. ambition woes; need to be innovative and implement new ideas but have stagnant perceptions resisting change...
143. It is difficult to be - as the Oregonian requested- everyone's pal and the tough regulator at the same time. I believe that protecting the environment, and earning the public's respect for doing so, at the same time keeping on the good side of industry, politicians, etc. is a very difficult job and will be the biggest challenge for our director.
144. Bringing the changes wrought by Stephanie to maturation, and maintaining and enhancing the quality and accountability reputation that Stephanie has built.
145. It's critical to Change the pace of decision making. It's critical to deal with dysfunctional sections from the top down. The management class here is all very protective of each other. Hopefully the new director will be shocked by how much work was done and also by how many things were decided but never implemented. If he or she isn't shocked, that'll be bad.
146. uncertain political climate, continued challenge for achieving stable and adequate funding, biased media scrutiny
147. Staff moral. Making the agency an environmental agency and not just a "save the salmon" agency.
148. See above
149. The extremely low moral here in the agency and the issues associated with too many years of stakeholders above staff. Although stakeholders and yes the Legislature are important in keeping the engine running, without oil, it's life's blood, the engine will build up excessive heat and wear until it finally dies, creating more work and more havoc for management and staff to contend with. We need change within and I believe it will take someone outside the agency to bring it on.
150. Will inherit management and staff that have suffered, and have been intimidated by poor leadership by current director. The new Director will have to show that she/he is serious about the mission of the agency and in supporting staff.
151. Increased pressure from not just environmental groups but the general public to make decisions that clearly favor the "environment" over "compromise to appease industry." This agency worries too much about the impacts of its decisions. It needs to make its decisions in confidence, picking the decision that is best for the environment and not worry always about what others will think.
152. The DEQ is a well working machine that could stand with a few communications adjustments and cross program awareness. Above all there should be a similar Enforcement stance between regions. If the new director will observe, they should note the disparity between regions for the issuance of civil penalties. What a person does and how much the is fined depends on the region they live in. DEQ would be in a legal bind if this were ever brought up in a given case.
153. Lawsuits seem to be running rampant in water quality. I don't know if the same is true for other programs, but it seems we as an agency needs to find a better way to involve the public and special interest groups in permitting decisions to hopefully avoid lawsuits.
154. Working with the legislature to maintain the positions currently in-house. Living up to the image that Stephanie has cultivated in the organization, in the legislature, and in the public eye.

155. Refusing new mandates that are not funded. Taking enforcement action on well lobbied polluters. Presenting issues of concern before they become overwhelming. Listening to staff about technical issues. Staff means those doing the work, not filtering the information. Ex. of taking action. Disposing of drugs by return to pharmacy, not dumping down the toilet and having them be in the water. Standup to the phara lobby who won't pay for it and the federal gov. regulations that throw up roadblocks. While not entirely a DEQ issue, it is when the water is polluted, stand up and take that bold position. The public wants to see that defense of the populace, not defense of the status quo.
156. Enhancing the agency's reputation as a leader in applied science. Focusing resources on key environmental problems (most bang for the buck).
157. High-strung, upper-management staff. A burgeoning culture of mistrust within the agency. The perceived lack of "transparency". Management staff that eat, sleep and breathe platitudes, catch-phrases and buzz words. Disgruntled staff who really don't appreciate a perceived "The Royal We" vs. "The Peons".
158. DEQ is not seen as a leader in improving water quality, but as a lap dog or at best ineffectual. This public perception needs to change through strong leadership and actions.
159. DEQ has a history of trying to make industry happy rather than seeking solutions that are best for the environment. If the Director seeks to make change in this area -- it will be a challenge.
160. Toxics, field burning, fish consumption
161. Rapidly declining morale and retention problems which are leading loss of higher level professional staff and key employees. Keeping the agency focused on the few individually permitted or registered big polluters while making progress on the relatively greater pollution and environmental threats caused by the many smaller businesses and individuals. Finding ways to change polluting behaviors of individuals when the behaviors are not illegal.
162. Separating science and politics.
163. Retirement of roughly 1/3 of senior staff over the next four years. Recruitment and retention of a new young generation of staff. The changing relevance of DEQ in terms of the new environmentalism and green movement initiatives.
164. Showing Oregonians how DEQ can lead in protecting the environment, i.e. technical credentials at DEQ, equitable enforcement. Restore management authority and right to manage. Address the Union's protectiveness of poor performers.
165. Acquiring funding, working with the legislature and other state officials to make the system work so that we can safeguard the environment.
166. - retaining staff and retaining staff institutional knowledge. Develop a standard for replacing retiring staff (for example, hire a replacement at least six months prior to a staff person retiring). - require management to have or develop a technical understanding of their program. Managers should not just be able to manage. It benefits the staff and the program when managers have a technical background in the specific program or are able to demonstrate the ability to learn the program. The program and staff do not benefit from a person who 'babysits' a program; staff can do that on their own.
167. \* Climate change \* Nanoparticle wastes \* Pharmaceuticals released to water and sediment \* Bioaccumulative chemicals
168. Keeping highly skilled staff when salaries fall behind private-sector job salaries and with decreasing support from DAS in promoting career opportunities at DEQ. I think DEQ will be loosing a lot of staff to the private sector as salaries and higher level positions wane.
169. Climate Change will grow in significance. Reducing area source and agricultural pollution will become more critical.
170. toxic air and water pollutants employee moral re: inadequate staff pay increases
171. Global climate change. Pharmaceuticals in water. Public health impacts from toxic air pollution.
172. Global Warming/Climate Change will dictate that we look at how we protect all of Oregon's natural resources. For example, the way we calculate discharge limits and how we implement groundwater protection strategies will need to be re-evaluated.

- 173. DEQ is critically behind the curve on areas that it should be leading in, Sustainability is prime example. A strong leader who will follow the lead of municipalities and other agencies who are already implementing sustainable practices in building selection, fuel requirements etc... Also, DEQ is seriously lacking in utilization of modern technologies such as GIS and making more info available to the public.
- 174. increase moral within some offices establish trust with the public and other agencies get some good press for DEQ for a change
- 175. I think that DEQ faces many issues that do not cleanly fall into one or another program, as currently organized, and it will be important for the director to recognize these situations and provide leadership on those issues.
- 176. In my opinion, these are the ways a new Director could benefit the agency: 1) Conduct a complete overhaul of department processes. 2) Eliminate inefficiency, establish firm guidance for risk based assessment across all programs; 3) Create a culture that channels the good intentions, expertise, and tenacity of the staff into productive, excellent work; 4) Take a real hard look at the way we spend money (this includes tangible goods and services as well as staff time- find duplications of effort, eliminate systems and positions that do not add to the agency mission); 5) Promote and reward no nonsense- non politicized science based decisions; 6) Know the subordinate managers, hire managers that have an aptitude for managing people and a knowledge base for the area they manage- create a system that not only assesses these characteristics, but also doles consequences for performance; and 7) Reassess whether or not creating smaller localized offices will help meet goals (or will it create greater inefficiencies, more duplication of effort, less consistency between regions, more costs, and even lower the ability of the Department to attract and retain quality professionals.)
- 177. Water. Both water quality and quantity are important issues facing Oregon and DEQ has an important role to play. Part of this will involve tacking challenges with other agencies, including Ag and Forestry, on water quality management.
- 178. The new director will have to contend with several environmental challenges, along with the public interest of the agency. In addition, the nature of the state's and the nation's changing workforce will need to be addressed, which will require a framework from the director from which managers and administrators can work.

4. What expectations do you have of the person in this position?	
<i>answered question</i>	<b>168</b>
<i>skipped question</i>	<b>66</b>

Comment Text
1. Figure out a way to enforce environmental laws so that polluters will no longer set the policy and get away with the harm they are causing to the ecosystem and human health
2. To uphold the law. To cite violators, force compliance and when necessary not be afraid to take action.
3. My expectation is that the new director will prioritize enforcement of our environmental laws which includes penalties against permit violators and those operating without permits where permits are required.
4. That they will lead Oregon to be a better protector of the environment. To raise fines for repeat polluters.
5. Not much...we go through this "change the rules for the worse" on a near annual basis.
6. A person who will put Oregon back in to the fore front of environmental project, but also do so in a way that engages business and the public in the vision and the process.
7. As noted in previous comments: a dedication to the mission(s) of DEQ and to the majority of STAKEHOLDERS: all peoples and animals that breathe... all critters / plants that require clean land and water.



8. To be fair, unbiased. To assure that the state's laws are followed. Ability to assure ongoing funding for the dept. so employees can do the job.
9. This person should have a strong scientific knowledge and background and have the strength to stand up to lobbyists.
10. To be more of a visionary than previous Directors
11. Reform the public and legislative commitment to DEQ and refocus and reenergize staff
12. That Oregon will be better off when he/she leaves the office.
13. Someone who is willing to take a strong stand to protect Oregon's environment and public health.
14. Make OR air & water pollution less
15. Come in strongly, articulate a clear vision & rationales, & take no prisoners in getting the job done.
16. This person should know the deep and interesting history of the agency, and understand the important role it plays in Oregon. This person needs to have a goal of improving
17. They will have to walk a tight balancing act among all the stakeholders involved, while being a strong advocate for upholding the agency's mission.
18. They should be willing to surpass all EPA standards.
19. I expect the new DEQ director to act in the best interest of the citizens of the state at all times.
20. That they run an agency that fines polluters, writes enforceable permits, and enforces laws.
21. Leadership internally and externally re: protecting Oregon's air, land and water.
22. that they know what they are doing, believe in what they are doing, and will accomplish many of their goals, whether small or large
23. I expect them to use their position to act as a leader to protect the air, water, lands, wildlife, and (most importantly) people of Oregon. They must not be an administrator whom the legislature or EQC uses to in act their ideas, but rather someone who is willing to push their visions up to the EQC and legislature.
24. To serve and protect the public interest, to ensure that we move toward a healthy Oregon and healthy Oregonians, to inspire diverse stakeholders to become a part of the solution.
25. aggressive enforcement of regulatory provisions active partnership with EPA and other state agencies
26. I expect this person to be accountable to the people of Oregon and to ensure that the entire agency is similarly accountable. This includes ensuring that DEQ is strictly following all applicable laws but also ensuring that DEQ is adequately carrying out the will of the people instead of serving the interests of the regulated community.
27. The person must lead the agency beyond the "don't expect quality" era.
28. I expect the new director to go beyond the minimum requirements in protecting Oregon's environment.
29. We expect them to be tough and fair instead of allowing corporations to illegally pollute the environment. We expect them to enforce the law and read monitoring information and to act on that information.
30. Not to fulfill the status quo and continue along the same trajectory, but to act boldly in protecting our water and air.
31. I expect this person to be more interested in preserving the quality of Oregon's environment than in protecting the profit margins of polluting industries.
32. THAT THEY ARE ACCESSIBLE TO ALL CITIZENS AND THAT THEY ADHERE TO THE MISSION OF DEQ AND TO LISTEN AND PROVIDE STRUCTURE TO WORK TOGETHER. WORKING WITH THE ENVIRONMENT INSTEAD OF IN OPPOSITION TO IT.
33. While recognizing that all agencies are political to some extent, reduce the political nature of decision making and get it back in the hands of technical staff where it belongs. Right now, many (most?) DEQ decisions are dictated from the top as lobbyists work management to get favorable treatment for their clients. This must change!

Agenda Item D, Action Item: Appointment of Acting Director and Draft Criteria for New Director Selection  
December 13-14, 2007 EQC Meeting  
Attachment C

34. I expect a DEQ director to take the statutory requirements of the agency seriously, and work to enforce clean air and water laws, whether state or federal. The recent scandals with the agency's failure to support its own staff in clean-up issues show very poor agency management.
35. That they will be an advocate for the state's natural resources.
36. Agency culture needs to be shaken up by a visionary person. DEQ has developed a bunker mentality after years of budget cuts and attacks from a hostile legislature and cutbacks from the federal government. This was even apparent in 2007 despite a more friendly political environment with DEQ staff often advocating for timid half-steps in Salem or standing in the way of real progress on some key issues when they had no business doing so (SB 235 is a prime example with the DEQ actually working against a stronger bill than it preferred that had passed the Senate Environment Committee). However, the politics of Oregon's legislature have changed and now is the time for a revitalized, aggressive agency staff to pursue visionary improvements in Oregon's environmental quality. It is not the time for the agency to simply tread water nor its staff to advocate caution or seek to placate the regulated community for fear of backlash in the Legislature.
37. To take the reins on enforcement of State environmental laws.
38. A strong commitment to the environment & ability to make DEQ an effective enforcement agency.
39. I expect the person to be a strong leader to can define environmental problems and solutions and lay out a vision for implementing those solutions.
40. Strict enforcement of environmental laws.
41. Working with diverse stakeholders is critical!
42. I expect this person to place the health of the environment as the preeminent concern among the agency's considerations. This means taking firm, but clearly necessary, stances against businesses who want to continue destroying our natural resources.
43. To require DEQ to actually do their job; i.e. abide by their legal obligation to monitor and enforce permits and regulations.
44. This person should realize that it is not the mission of the DEQ to cut businesses slack when businesses break the law, but to protect Oregon's environment and quality of life - the lifeblood of the state.
45. The ability to compel business to see why compliance (or voluntarily exceeding compliance) makes business sense for their market and for Oregon. If this fails, this person must also be able to strongly enforce penalties and fines to demonstrate that operating at the floor of the regulations is not in the company's best interest.
46. Demonstrated commitment to environmental protection
47. Environmentally friendly, yet balanced.
48. I expect the new DEQ director to shift influence away from the corporate interests that DEQ is charged with regulating. The shift must be towards the public interest.
49. That they enforce the laws regulating pollution, even under pressure. As a result, the director must be able to 'sell' the need to do so, since informed public pressure will always eventually validate the actions of an aggressive DEQ director.
50. The person needs to improve DEQ's reputation. Currently, the agency is too beholden to industry. The new director needs to turn that around and reestablish Oregon's place as a leader in environmental protection.
51. That they will uphold the public trust and help protect Oregon's environment through the application of sound science, policy, and law.
52. leadership courage commitment to ensuring Oregon BECOMES (it is not now) a truly green, environmentally friendly state
53. I expect the director will work in the best interest of the public, instead of industry.
54. I expect a genuine willingness to pursue policy changes and a commitment to building positive relationships with

environmental stakeholders.

55. That he/she will place the broad public interest above getting along with corporate and developer interests. An energetic commitment to enforcement.
56. That she/he be a strongly principled leader and a visionary, preferably from outside the agency.
57. High expectations. DEQ is a critical force in what matters to Oregonians but has been neglected over the past twenty years. The agency needs to be on the forefront of environmental protection and enhancement efforts and needs a leader who can place it there.
58. Collaborative, cares about DEQ staff, strong environmental ethic
59. My expectations include: integrity, honesty, openness, dedication, ability to nurture and support executive staff, ability to share critical information, ability to rely on executive staff judgment and input (but not be a rubber stamp), brings enthusiasm to the workplace, has a good sense of humor, plays fair, holds people accountable, and someone to inspire us
60. Believes that science is an important consideration in fulfilling DEQ's mission. Is information-savvy; has an understanding about how information and data can be used to best advantage; realizes the strategic advantage of good information.
61. An open door and willingness to have open communication An active involvement with and responsibility for staff actions
62. The Director should support the DEQ employees. This support should be in their work of enforcing laws and regulations and in providing adequate wages for the work they do.
63. Streamlining of the regulatory process without giving up environmental reviews of critical work.
64. None, I'm sure the hire will be a competent politician. Enough said.
65. Must be able to delegate and not reach snap decisions about what needs to be done. If the individual expects to be the final decision maker on issues, they must take the time to participate in the process.
66. Be a strong leader and supporter of protecting the environment; be willing to ask the legislature for what we need to do our jobs.
67. Innovative environmental leader Links public health to the environment Someone who understands the science Sees public health and natural resources as a major economic benefit
68. Good at delegating to capable leaders in the agency. Nurture other leaders in the agency. Stand up for what we do well and tell public and legislature about it. If we don't do some thing well, ask staff what could be done differently.
69. Leadership.

---

70. Will make DEQ a powerful force in Oregon. Fund a lot of programs. Will take next steps in cutting edge science.
71. That they be open to suggestions.
72. Very strong communicator; someone who places value in reality as opposed to following regulatory directives as if they are always vital and important.
73. Skills to move the agency forward in its mission to be a leader in enhancing and protecting the environment. Vision to move the agency to a higher level of service through organizational improvement, customer service, and delivery of services using technology.
74. Intelligent, well-spoken, professional, honest, able to make the hard choices and stand behind that decision
75. Thoughtful and cool under pressure
76. See #1
77. Good natured, sees all staff as important and part of the decision-making team, work decisions from the ground up, rather than using a top-down military model.

Agenda Item D, Action Item: Appointment of Acting Director and Draft Criteria for New Director Selection  
December 13-14, 2007 EQC Meeting  
Attachment C

78. It's unlikely that the person will be strong in all of the facets required to run the agency. The person needs to recognize that and know how to "fill the gaps" by ensuring someone else is taking care of all of the things that are needed to run a large, controversial organization. If the Director is most skilled at external politics, then a Deputy or other person is needed to take care of organizational health, and the Director needs to make that happen.
79. I would hope for person knowing that DEQ needs to maintain a balanced position of compliance enforcement and regulatory assistance. Like it or not, DEQ programs operate under dedicated funds, which means we run programs. We should admit to that and accept the challenge to do so efficiently. We should do more to round out our efforts, and identify and attempt to address newly recognized environmental challenges. I would hope that the new Director is even-handed. This goes to recognition as well as discipline. Too often, the new is recognized over the strong and steady.
80. Openness to all viewpoints, and ability to evaluate the reasonableness of positions.
81. Someone who can successfully rebuild the DEQ into a responsive and credible organization in all three media (air, water and land).
82. I expect them to take advantage of the times. We are in an era where the general public is really starting to care about the environment and will expect and accept great leaps in environmental protection. I expect the new Director to lead us in a forward moving direction that will take advantage of this special time in history to make some needed changes. I expect the Director to maintain the integrity of the DEQ by going above and beyond our mission and into the realm of higher environmental possibility.
83. The Director has good people working for DEQ, and they should be allowed, encouraged and inspired to do their jobs. That said, the Director must be willing to not simply provide stakeholders with legitimate concerns "process" or "active listening" but to intervene and make decisions that are consistent with Agency goals, but might be contrary to the thinking of individual agency staff, managers, or administrators.
84. Must be an excellent facilitator as well forthright contributor
85. Vision and the courage to lead. Create a healthy culture within DEQ that results in a better product from the agency. Collaboration with more diverse stakeholders.
86. I hope that this person will be able to increase the awareness of environmental concerns throughout the state and have the foresight to recognize and do something about potential pollution problems before they arise.
87. What I want and what I expect are two completely different things. I expect the next director to probably be a democrat, which will want a whole lot of change, but not have a clue where to find the money to do it. I expect that the next director will be from Portland or some other big city and not have a clue about issues happening outside of their little world of Portland. I expect that nothing will change and the agency will become more broke. I expect for the director to create a bunch of rules and regulations and not have the staff available to enforce those rules, so it will continue to be all bark and no bite. I expect that the new director will try to manage everything from the top down and not realize that there are people who work for the agency who are not managers.
88. A true Leader that will stand up for the public interest and help to reclaim Oregon's reputation as the most progressive environmentally aware state in the country.
89. Very few
90. We need a director that is a strong leader. Current director has been a leader, previous director was not. It would be a disaster if DEQ had a director that was anything similar to the previous one.
91. I expect the person to realize that the Portland metro area is not the only area that matters. Regional differences do exist and must be considered when making policy.
92. I expect that they will be fair to all sides of the equation and is instrumental in fostering great collaborative partnerships between community, business and government
93. To place Oregon's environment as a top priority. To put substance over form. To place a high regard on technical skills and education.
94. I expect them to really make strides in terms of sustainability and policy. I expect more FTE's for positions to address

- GHG emissions and global warming. I expect them to really be aggressive with resource requests and legislative policy in terms of sustainability.
95. I would hope that the person in this position would have: a good technical and scientific understanding of the environment; concern for both the social as well as the environmental ramifications of regulatory and policy decisions; management skills that are sensitive to resource limitations and staffing realities, not just stakeholder pressure; and a good dose of intellectual honesty and humility.
  96. I expect that this person will develop a vision for DEQ with stakeholder input.
  97. Successful interaction with politicians to ensure adequate funding for the agency
  98. Their most important priority will be protection of human health and the environment, not know towing to special interests.
  99. The new director should be a leader and visible in that leadership to staff within the agency as well as to our external stakeholders. The new director should install a senior management team than can provide sound leadership and demonstrate excellent communication skills within the agency in order to accomplish the agency wide objectives. Evaluation of the effectiveness and functionality of the matrix management style of organization we currently have.
  100. He/she will live up to the qualities checked in all previous questions.
  101. Fast learning curve and providing leadership programs, greater communication with the general public to educate them on the reality.
  102. They need to operate in the short-term and long-term. They need to be a strong advocate for the environment, collaboration, education of the public, and for the funding and operation of DEQ. Staff needs to be supported and allowed to take reasonable risks without fear of reprisal.
  103. We want to continue the great work of the previous Director -- a reasonable person to work with and a person that is open to the community
  104. To successfully lead the agency through the next decade.
  105. none
  106. Understanding and proven application of cutting edge leadership philosophies and skills (e.g. servant leadership characteristics: authentic, vulnerable, accepting, present, useful)
  107. Listens more than directs.
  108. I expect future Departmental directors will have a thorough understanding of the departmental mission, and have the technical and interpersonal skills to assure that the agency focuses on its intended mission.
  109. change the organization structure
- 
110. To understand that not only is DEQ the regulator but also that DEQ is the scientist/Biologist/chemist of Oregon.
  111. That this individual has demonstrated proficiency at working with stakeholders holding diverse viewpoints and guiding them to a win-win outcome.
  112. Inspirational leader of DEQ; clear communicator of expectations externally and internally
  113. stay 5 years or more
  114. Will communicate well, on a regular basis, with DEQ staff about what s/he is up to. Instead, it's been a black box for a while around here. Will be able and willing to stand up to industry and to legislators, as needed, and say "no, we're not going to do that, and here's why." Will commit to five years as director.
  115. A vision for the future of the agency that includes dealing with current challenges not just implementing EPA requirements -- and the leadership to get there.
  116. Communication updates with all staff at the appropriate critical times, including personal visits to offices 1 X per year.
  117. That they treat staff with respect and as professionals by being straightforward about Director decisions, agency

direction and priorities and the rationale behind them. Ability to be leader amongst other State natural resource agencies in furthering environmental protection.

118. Strong leadership, inclusive, decisive.
119. That they care about protecting the environment. That they care about DEQ's mission.
120. The person should be able to make incremental progress on many fronts within the agency, so they will need skills in effectively triaging our work, but also skills at communicating those priorities clearly to staff, stakeholders, and the public.
121. To recognize that a sound economy is dependent upon a continuously-improving environment.
122. That the new director will be careful in their approach; not brash and overly quick to react. The new director, should not come in with grandiose plans of revamping things, but instead carefully evaluate and prioritize that which may merit change and then determine how to implement appropriate changes in a reasoned approach.
123. Ability to take a stand; collect a variety of input but make own decision based on what's really best. Possesses integrity and is efficient.
124. I expect the new director to be aware of the need and value of changing our ways to create the good life as a sustainable culture. I expect them to be aware of the current momentum of green building, of renewable energy systems, and of how we can better feed ourselves thru local organic options instead of continuing on our destructive, oil addicted, dog eat dog means. I expect them to be able to make it all make sense to those in the dark and then to be able to stimulate ideas and then to inspire long term commitments to actions that will transition DEQ into a true environmental leadership role.
125. Frankly, not much. However, if we are lucky and find someone to be an agent of change, then I think the agency workforce will be energized and we will do good things.
126. That their first priority is to make DEQ a great place to work.
127. That they embrace a 'DEQ' vision for protecting the public resources that staff can get behind, and not simply promote a 'personal political' vision based on a low expectation for success.
128. Leadership, charisma, collaboration, willingness to take risks, intelligence. A sound grounding in environmental issues would also be a plus.
129. I would hope the new Director would be personable, approachable, well informed of day-to-day problems occurring within DEQ. I would hope the new Director would make Division Administrators more accountable for problems that occur within their divisions (that is, that DAs bring issues quickly to the Director for guidance, involvement and consultation). I would like to see the new Director try to partner with the Union so that win-win situations can occur and also illustrate that employees are a valuable part of DEQ.
130. I expect the Director to support staff and managers, and to be a voice for the future of the agency.
131. To respect staff and keep us informed on a regular basis. To lead by example, walk the talk. Obese people should not tell us to reduce waste.....
132. MANY
133. They value all of us worker bees and show real leadership in taking all of us along the path we have set out for better service quality, practical problem solving and cooperative partnerships to achieve our agency goals.
134. I expect our director to be a leader and to be visible. I expect him or her to support and validate the employees of this agency.
135. I expect him/her to be able to deal well with the legislature and industry. However, that said, I also expect our "Director" to look at internal events, and to listen to staff (especially regarding the last couple of years) so as to diagnose internal problem(s) and to bring staff back from the depths of complacency, and the belief that we are merely serving industry to the detriment of the environment, and so as not to get our hands slapped. If Stephanie is replaced by an internal candidate, my expectations will be very low, as I believe it will be business as usual. And, even if it isn't, it will be perceived as being so.

136. That they demonstrate leadership and make sure managers and staff below them are following their lead.
137. I have learned to expect nothing. Then I'm not disappointed. Sorry to sound cynical. I have great hopes that the person will be a dynamic leader bringing back the spirit of the agency and instilling those working here with a rekindled energy. I hope to see a new dynamic relationship between management and staff. Not an abyss. ....
138. None. I know this place too well to hold my breath on anything.
139. Able to build on success that has resulted from Director Hallock's leadership; able to find the appropriate middle ground and focus on positive environmental outcomes vs. extremes either way
140. - understands DEQ processes and culture
141. See #5.
142. Trust the staff and treat them with respect.
143. Develop a good working relationship with the legislature. Make an effort to get to know as many people in the department as possible.
144. Solid knowledge of environmental issues and a fearless commitment to improve Oregon's environment.
145. I expect them to be concerned with the environment and with the morale of the agency as a whole.
146. That they will direct the DEQ in the implementation of Environmental Regulations and Programs to the betterment of the State of Oregon and All of its residents and visitors. That this person will support the employees who work under them and not undermine the confidence of a highly technical group of people doing difficult work.
147. Move the agency from a focus on building credibility with the legislature (which was necessary) to a focus on environmental leadership, decisiveness, partnerships and results. Build credibility in the water quality program.
148. Willingness to truly listen to staff and stand up for the agency.
149. Value technical staff.
150. That they not isolate themselves from staff or other interested parties when making decisions.
151. Strong advocate for the Agency's employees and mission. Clear communicator and respect in Salem.
152. Must be able to delegate and stick by the decisions of delegates.
153. To consistently stay above details belonging to subordinate staff and managers. To populate the agency with motivated/productive managers and staff. To turn over low performing managers and staff.
154. I want to be proud of my Director. I expect this person to be the ultimate protector of Oregonians. This person should not continue to allow a focus on considering the highest amount of pollution that benefits the permittees pocketbooks, but rather the best available technology to protect our resources and all who live here.
155. They should lead, be dedicated to protecting/improving the environment, and be able to chart a successful path.
156. Be able to obtain funding. Be able to be objective and not go easy on the big polluters. Be able to work with the governor and legislature to work out kinks in the laws that tend to keep us from doing the things we need to do to protect our beautiful state.
157. Hold staff interests in high regard rather than political and stakeholder interests coming first. Also, that the person is serious about enforcement of our existing laws and rules. Able to stand up against DAS and fight for real sustainable practices as encouraged by Governor.
158. To be a people person from the bottom of the agency to the top.
159. To be able to listen and lead. The person must be able to work cooperatively both in-house and with the legislature.
160. I expect this person to have strong leadership skills and to be able to create a stronger culture of sustainability at DEQ.
161. A strong knowledge of environmental problems in Oregon and internationally. Ability to manage environmental professionals (hands off management style).

- 162. They should walk the talk, lead by example and be a part of the team.
- 163. Follow through on stated promised actions.
- 164. high quality in the environmental field and concerns caring- compassionate and well received with staff, managers and the public-excellent communication skills
- 165. Improving public trust and perception, gaining legislative support, backed by budget allocations, and providing excellent stewardship to the people of Oregon (not just the regulated people) with the singular focus of environmental protection is paramount. This should be the core of the first years of the directorship.
- 166. That the person be approachable, interested in the work of staff, be a change agent, and dedicated to improving DEQ's reputation in the community.
- 167. Excellent communicator. Honest. High degree of integrity. Not afraid to make tough, unpopular decisions when they meet the long term needs of Oregon.
- 168. I expect the new director to be open to communication from staff and managers, and to be an advocate (though not necessarily an activist) for environmental protection.

5. Do you have anything else you would like to share with us that will be helpful in our selection process?	
<i>answered question</i>	100
<i>skipped question</i>	134

**Comment Text**

- 1. Choose someone unencumbered by political and industrial connections that might lead him/her into bad choices.
- 2. I hope for the best from you as you move forward.
- 3. We expect you to refrain from a 'Brownie' appointment; a person who might represent big business interests rather than those of the majority of the general public/ stakeholders. ALSO, it is glaringly apparent that the scheduling of any " public information/ forum/ feedback-requesting" meeting in the middle of a weekly afternoon is disingenuous at the very least. Thank you for the opportunity to provide STAKEHOLDER FEEDBACK.
- 4. We need a director who will openly discuss the issues despite political or legal pressures. Someone whose priority is the environment.
- 5. DEQ needs an effective leader to restore the role, public commitment, and vision of the organization rather than just a skilled bureaucrat or administrator.
- 6. Be exceedingly careful to keep the public's interests in the foreground -- not be driven by the economic interests of those regulated.
- 7. No.
- 8. No weenies or political hacks, please.
- 9. A good and very straight forward question might be, "have you read Fire at Eden's Gate." This, in my view, should be required reading for anyone trying to get the Director's job.
- 10. Do you want to invite Steve Duin to sit on an interview panel? :) Just kidding. You should involve stakeholders in the process, but that's not an appropriate role for a reporter.
- 11. We need someone who wants our children's children to have a beautiful, healthy state to live in



12. No more spineless weenies. Elliot Spitzer would be a good model.
13. Experience as an appointed and elected official would be invaluable. Essential to have functional knowledge of environment and health issues. Expertise in crafting and implementing policies.
14. based on the past level of instability within, might be advised to look outside the agency for new leadership
15. Thank you for searching out public input on the next Director. This is a very important decision for the people of Oregon, and I sincerely hope that the EQC views this process as an opportunity to bring much needed change to DEQ to reposition the agency as a leader in protecting the environment and upholding the public trust.
16. Please choose someone with demonstrated experience and commitment to protecting the environment.
17. It is very important that strong leadership occurs in ODEQ soon. Oregon is famous for its rivers and is starting to be famous for the lack of enforcement and public involvement also. There should be state processes to deal with all pollution sources, including timber and agriculture and they should involve the public, and all processes and permits should be enforced. It is time for Oregon to get with the times and protect its resources.
18. Please, please pick someone who will not only encourage consensus and stakeholder involvement, but who has deeply rooted values about the importance of Oregon's clean air and water.
19. Do your job!
20. There is always a danger with regulatory agencies that they become too close to those they regulate. This has happened at DEQ, and the agency has lost the trust of the people of the state as a result. A new director will have to start from this low place to revamp the agency.
21. The credibility of DEQ needs to be restored. A director who is an advocate for our air water and land needs to be engaged in the diverse community and communicate with the public on these issues.
22. Until very recently, the DEQ was simply unwilling to deny permits to polluters and seemed to see itself in the roll of 'rubber-stamp' and permit facilitator. Non-profit groups outside the agency have succeeded in winning more enforcement claims and preventing more illegal permits than the agency has. This should be an embarrassment to the EQC and the agency, and must change. With the large number of staff, budget, and experts on hand, there is simply no excuse for the DEQ to lag behind when it comes to being the watchdog of Oregon's environment. Polluters simply do not have the right to pollute and DEQ needs to take aggressive steps to put Oregon on the track of improving its environment, not slowly degrading it or maintaining the status quo. By being tough on polluters, denying permits, and moving forward with proactive strategies that anticipate emerging environmental problems (such as requiring changes in forest management along streams on federal, private and state land; or setting enforceable standards for industrial agriculture before polluting facilities establish themselves) the DEQ's image and reputation will finally be restored and the public will once again see the DEQ as working in its interest, not simply a bureaucratic obstacle to environmental progress and protector of industry as many now perceive the agency to be.
23. Good luck.
24. The DEQ as it currently functions is inadequate in protecting the environment.
25. This agency needs a turnaround agent that will change it from a wounded, lame, complicit, lapdog to a real watchdog, complete with teeth that will protect Oregon through strict enforcement of environmental laws.
26. DEQ can accommodate the components of a healthy economy without the extent of pollution-resulting compromise that currently defines DEQ. This is not to say that DEQ has been anti-environmental by any means; I simply mean that the new Director and the agency as a whole must do more in order to adequately protect the great state in which we live.
27. I hope DEQ is considering Mark Riskedahl of Lewis & Clark. He is always implying that he could and does do a better job regulating and protecting Oregon's environment than DEQ. He has experience and the desire. Allow him to walk the talk.
28. I believe that DEQ would be best served by a new director from outside DEQ's current managerial staff.
29. The person should not be connected to the industrial regulated industry in the state. They should be neutral from them so that there is no hint of imbalance.

Agenda Item D, Action Item: Appointment of Acting Director and Draft Criteria for New Director Selection  
December 13-14, 2007 EQC Meeting  
Attachment C

30. I believe the DEQ structure and position within the government should be reconfigured to make it more independent of corporate as well as legislative influence that both weaken its mission. While this is a job for the legislature and governor, the incoming DEQ director needs to have the perspective, independent thinking ability and strong constitution to move towards putting "environment" and "quality" back into the Oregon department that bears these words.
31. Please appoint a director that will send a signal to industry that the laws will be enforced. The rest of the world is doing this, so threats of "moving to Kentucky" or elsewhere are hollow and are mere threats. Make industry understand that we will support them with tax credits and with a qualified workforce but not at the expense of our environment. Few if any industries are worth having that cause injury to our environment, and if a case of benefit over cost is made, then let's have open books and an open discussion of all the real numbers, both economic and environmental. Local companies that are locally owned and controlled are less likely to be a problem; only carpetbaggers typically need to receive the message that we will not be mistreated by them.
32. The DEQ is critical to help Oregon face our immense environmental problems so that future generations don't have to clean up our mess.
33. It's been ridiculous that Oregon, a notably "green" state, has been burdened with DEQ -- an agency that hasn't stood up for strong enforcement of environmental protections. Hopefully this will change with a new director.
34. You need someone who can make DEQ employees understand that the goal of improve environmental protection can be accomplished with methods other than a regulatory permit process.
35. Hire an Oregonian.
36. I hope you have a selection team that are savvy interviewers and can see past a resume to get the best leader we can get.
37. We need a strong advocate for natural resource protection, restoration, and public health. We need a scientist who understands how to lead and make a leader of DEQ.
38. Look for someone who has energy and is not close to retirement age.
39. No
40. The perfect director will, in my opinion, be a native Oregonian who is a parent. Here's hoping for perfection!
41. Environmental Stewardship. We're borrowing our resources from our children.
42. Tough job to do.
43. It would be nice to have a person who is sincerely concerned about the environment and who has the proven experience to work in this arena.
44. Need someone who keeps the Governor well-informed and asks for support and direction on the major environmental issues. The Director needs to support staff when the political response is to find blame.
45. Many of the questions under #1 were an amalgam of significantly different skills qualities. I would prefer them to be parsed out into separate questions.
46. This person must be perceived by all stakeholders as open, reasonable and fact-based.
47. No
48. Oregon is a small town. There is not, and should not be, much distance between leaders and ordinary citizens. We don't build Ivory Towers in Oregon, we build consensus. Please select someone who shares this belief.
49. DEQ and Oregon needs and deserves the best person to direct this agency effectively. Not an appointee or a shoe-in that will run this agency with a business as usual attitude. We need change. We need a person that provides access to staff and considers that all input has value, not just recommendations from key managers that will tell the Director what they think he or she will want to hear. The environment deserves it.
50. Please consider the importance of public involvement in the decision making process. Thank you for conducting this survey.

51. Ask for public comment on who they want to be their next director, since these are the people we are regulating. If you do this, which you probably will not since this is a state agency; the comments need to be counted by geographic location. This way, it will prevent all of the comments from coming from Portland and only express their viewpoints. Hire someone based on knowledge and not just on who they know.
52. Give the agency a person the staff can be proud of and that will restore the important role this agency has in serving the real interests of all Oregonians.
53. We are moving into exciting times where we have great technology to do great things- so I would like to see someone with desire to do innovative and exciting changes. Someone who is not afraid to step out of their comfortable zone and push for new things
54. In looking at Washington state's Environmental Directors -- Christine Gregoire and Jay Manning -- they are attorneys with experience in environmental law. This appears to be a very good background for a director.
55. We need someone who has a strong environmental ethic, both personally and professionally. We need someone who lives in an environmentally conscious and responsible way - we need a real leader for the environment, instead of a politician.
56. Just my best wishes and good luck to you all.
57. Let the director get the funding and his/her key people ensure necessary resources are available to those that are actually serving the public.
58. Please do not hire a legislator that has no scientific background and education for the director's position.
59. The successful director will take time to personally interact with all agency offices, sections, staff, and management.
60. I wish you great success as this selection will affect the health and prosperity of the Oregon for years to come.
61. Someone with good interpersonal skills and the ability to root out bad managers is necessary for the long term health of our agency.
62. Thanks for the survey
63. DEQ has suffered lost opportunities by practicing classism internally. The Director's Office and executive management team hold themselves above and apart from the line managers and staff with a 'top down' practice. The resulting disempowerment of managers and staff does not leverage DEQ employees as its greatest asset, and in the end the environment suffers. Line managers and staff are the best positioned to put environmental protection back into the applied mission of DEQ.
64. The new person should have a passion for the State of Oregon, not just the job.
65. The Department's working environment might improve if it was operated under the same internal standards of conduct expected - and required - of private business.

---

66. no jerks, please
67. good luck
68. I don't know whether it will be during our next director or the following one's tenure, but the agency will inevitably reorganize into geographical divisions, abolishing the LQ/WQ/AQ silos. So, our next director needs to be someone who recognizes the need for this change and can at least pave the way for it to happen.
69. This is a nationwide search and that is good & appropriate. But be careful to insure that the person selected understands the issues and political dynamics of environment in the west. Successful history in the east does not by itself insure success in the west.
70. Technical background and experience in Oregon are important.
71. We must update our aging IT infrastructure, and we must continue to make progress in moving towards more sustainable (e.g., not paper-based) work processes. So, it would be a plus if the candidates were to have experience in rolling out these types, or failing that, to understand the importance of functional, integrated, low-maintenance and low power IT systems.

Agenda Item D, Action Item: Appointment of Acting Director and Draft Criteria for New Director Selection  
December 13-14, 2007 EQC Meeting  
Attachment C

72. The best decisions are made by groups of people with differing perspectives and values, using good data.
73. Shoot high in the selection process.
74. We need a really benevolent person who we know has the commitment to the environment and who can inspire all of us to go for it--to work in our networks and make the world a better place. Someone who also enjoys the outdoors would be good.
75. The Director should be an ally of the Union, because both should have the goal of providing a safe and productive work environment.
76. Look for a balance between a brain, a heart, and courage. (sort of like the Wizard of Oz)
77. I would like to see the new Director have more management skills. Often staff is asked to provide input but only to have the input ignored (or so we think). But maybe the problem is that staff is not told the decision is a consultative decision not a consensus decision. I would like to see the Director's Office go back to being more in tuned with managers and staff and providing guidance when problems/issues occur.
78. Use your intuition....
79. Look for quality of thinking and service leadership, not someone who will become a figure head. Someone we can all respect and support because they respect and support us.
80. Please choose someone who actually cares about protecting Oregon's environment. Please do not choose someone just because they are well known or a politician. A tireless champion for Oregon is what we need the most.
81. Please, we need enthusiasm for the job, a sense of purpose beyond oneself, a role model, a moral builder, a butt kicker when it comes to violating environmental laws, and a dedication to Agency staff that lets us know someone is not just listening and paying lip service, but implementing visionary ideas as they relate to protecting the environment and taking care of staff.
82. How does the new director expect to fill the great experience gap that is developing and will continue over the next several years? You can fill slots but that does not mean the knowledge is there. What is being done to retain those on the staff level?
83. Think outside the box but first find out if you know where the box is.
84. Look, Oregon's DEQ is well respected... more so in other parts of the country. We're still riding the McCall legacy. And why not? We've kept the dream alive for the most part. But there's this perception that somehow we're imposters - within the state. DEQ needs a leader who is going to definitively decide whether or not DEQ is in the business of "Environmental Advocacy" or if we are simply a "Regulatory Agency" that provides technical support.
85. Please take staff suggestions seriously. In its management decisions, DEQ has a tendency to take token interest in staff input, in the interest of "appearing to do the right thing," then moving toward the route upper management favors.
86. Does a thorough background check and be certain to verify all claims made regarding experience and education.
87. Please provide the new director with a clear vision of what the EQC and governor wants to accomplish in the next few years and empower them to make that vision a reality.
88. It is very important to have someone who is respected by the legislature to represent the agency in Salem.
89. The new director should be hired externally so that a fresh perspective is brought to the agency.
90. To not hire from within DEQ.
91. We will have many new and unforeseen challenges in the future - and the next Director will indeed be challenged. I would like to see someone who starts their career at the Q by reaching out to the environmental groups, the planning organizations and other natural resource agencies to find collaborative approaches (and connections) for the upcoming issues. I want to see our Agency become the entity that protects Oregonians above and beyond the protection of permittees and other polluters. I think there is a need for Cleanup rule revision to reflect that contamination should be cleaned to the extent possible, and should not be left in place because the current risk assessment indicates no one is using the land or water. We have seen (Measure 37 and 49) that many parcels of land that were not supposed to be developed, will be; and groundwater that was not to be used as a drinking water source will now be just that.

92. DEQ is a great place to work. Oregon is a great place to live. Oregonians want DEQ to lead in protecting the environment. Does the candidate have a vision for DEQ's role?
93. Seriously consider filling it from within DEQ rather than looking outside. Conserving and utilizing institutional knowledge can go a long way. Too much to be done or too much "catch up" to be accomplished to waste time starting from scratch.
94. Thanks for asking!
95. I think the leader of DEQ should be expected to walk the talk. This individual must possess and be able to demonstrate her personal environmental ethic.
96. If the Director has some science or engineering background or understanding this will enhance DEQ's credibility in the legislature, business, and environmental circles.
97. Don't hire someone just because they have a lot of degrees and certifications; hire them for substance, experience, and who come with great recommendations.
98. The next Director will determine the fate of DEQ and will play a major role in maintaining and creating livability in the state of Oregon. I know this decision is very important and appreciate the chance to provide comments. It is my sincere hope that the EQC seek out and incorporate comments from as many different stakeholders as possible. Given the national trend of shrinking environmental agencies, and in the case of Michigan, a temporary shutdown of the entire state government, the new Director must endeavor to prove the worth and efficacy of the Department.
99. Having someone with knowledge of DEQ would be a plus. The previous director was from out of state and had no knowledge of how DEQ worked and our agency suffered under his leadership. This doesn't necessarily mean someone internal to DEQ, but at least someone who understands the challenges, issues and opportunities that face DEQ.
100. It's important to take the time necessary to pick the right Director, not just someone who can do the job. It's generally not a good idea to pick the "least bad" candidate, and this is certainly true with regard to this particular decision. If immediately there is not an outstanding candidate, please continue until such a person is found.

8. Stakeholder Information: I am affiliated with:		
EQC	0.5%	1
DEQ Staff	59.8%	119
External Stakeholder	23.1%	46
Tribal Government	0.5%	1
Internal Stakeholder	1.5%	3
Other (please specify)	14.6%	29

**Comment Text**

1. local citizenry

Agenda Item D, Action Item: Appointment of Acting Director and Draft Criteria for New Director Selection  
December 13-14, 2007 EQC Meeting  
Attachment C

2. See "Google" for definition of 'stakeholder' as that of [www.unmc.edu/ethics](http://www.unmc.edu/ethics): "A person or group who can affect or is affected by an action. Responsible decision making requires consideration of the effects on all stakeholders."
3. CPO-4B Washington County
4. Oregon non-profit
5. Oregon citizen and landowner
6. Public interest groups
7. Washington County resident
8. TakeBackTigard; various local & national environmental groups; the Earth & Spirit Council
9. Citizen of Oregon
10. Lewis and Clark Law School
11. nonprofit
12. Citizen of Oregon
13. nonprofit organization
14. citizen/future lawyer
15. Environmental consulting/products company
16. Public Interest Environmental Law Conference, PI environmental legal community
17. Concerned citizen
18. concerned Oregon citizen and parent
19. Since the DEQ typically and revealingly uses the phrase 'stakeholder' to mean not the public but those firms which are regulated because they pollute and thus require permits to do so, I have checked this box as a concerned citizen. You should explain to the public that the DEQ uses the phrase 'stakeholder' NOT to mean someone that breathes and drinks and walks in the Oregon environment and thus expects and clean air water and land, but rather someone who works for a firm seeking to achieve the opposite of these things in order to further the profit interests of polluting firms (usually not owned by Oregonians). I wait to see if this Governor is a real Democrat or is just a local version of Dick Cheney.
20. attorney
21. NEDC
22. Various community organizations
23. Just a citizen
24. Conservation Organization
25. lobbyist
26. Oregon citizen
27. DEQ mgmt
28. This should allow for more than one choice.
29. Oregon citizen first

**STEVENS-SCHWENGER Joanie**

---

**From:** LAWSON Twyla  
**Sent:** Friday, December 14, 2007 8:35 AM  
**To:** billblosserpr@yahoo.com  
**Cc:** HOLLAMON Pattie; STEVENS-SCHWENGER Joanie; LAWSON Twyla  
**Subject:** DEQ Director Recruitment Open

**Bill,**

The recruitment was opened by the end of the day yesterday. Here is a link to the announcement:

[http://www.emp.state.or.us/jobs/statejobs/index.cfm?](http://www.emp.state.or.us/jobs/statejobs/index.cfm?location_content=jobdisplay.cfm&agency_menu=N&ord=11002&system=WIOA&type=N&lang=I)

[location\\_content=jobdisplay.cfm&agency\\_menu=N&ord=11002&system=WIOA&type=N&lang=I](http://www.emp.state.or.us/jobs/statejobs/index.cfm?location_content=jobdisplay.cfm&agency_menu=N&ord=11002&system=WIOA&type=N&lang=I)

It is also attached. I am also having it placed under the featured recruitments link on the jobs page this morning.

I have a different board meeting this morning and meetings all afternoon. As soon as I have the opportunity I will put together the advertising/outreach information. It most likely will be by Tuesday next week. I hope that works.

Thank you,

**Twyla Lawson, PHR**  
Senior Recruitment Consultant  
Statewide Training, Development & Recruitment Services, DAS/HRSD  
Office: (503) 373-7677  
<http://www.oregon.gov/DAS/HR/Recruitment.shtml>

**Confidentiality Note:** This electronic mail transmission contains information belonging to the Department of Administrative Services, Human Resource Services Division. This information may be confidential and/or legally privileged and is intended for the use of the addressee designated above. If you are not the intended recipient, you are hereby notified that any disclosure, copying, distribution or the taking of any action in reliance on the contents of this electronic information is strictly prohibited. If you have received this electronic mail in error, please delete it and notify us immediately.

## PRINCIPAL EXECUTIVE/MANAGER H

(Director of the Department of Environmental Quality)

\$88,116 - \$136,320 ANNUALLY

**Announcement Number: ES340001**

**Classification Number: Z7008**

**Open: December 13, 2007**

**Close: Open Until Filled\***

**Location: Portland, Oregon**

**\*The first review of applications will begin January 15, 2007 and the hiring committee may decide to close the announcement at that time. For immediate consideration, please APPLY NOW.**

The Department of Environmental Quality has an exceptional opportunity for an experienced leader to serve as the Agency Director. The Director reports to, and is selected by the Environmental Quality Commission (EQC), a volunteer five-member policy and administrative commission appointed by the Governor. Informally, the Director also reports to the Governor, through the Governor's Natural Resources Policy Advisor. This is a permanent, full-time, executive service position located in Portland, Oregon. If you are hired, you will become part of the State's Executive Service team.

### AGENCY OVERVIEW

The mission of the Department of Environmental Quality is to be an active leader in restoring, enhancing and maintaining the quality of, Oregon's air, water and land. The Department has approximately 800 positions and a budget of \$300 million dollars. 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.

DEQ staff use a combination of public outreach, technical assistance, permitting, inspections, and enforcement as tools to help public and private facilities and citizens understand and comply with state and federal environmental regulations.

The DEQ staff includes scientists, engineers, technicians, administrators, and environmental specialists, among others. The agency's headquarters office is located in Portland with regional administrative offices in Eugene, Pendleton and Portland; and field offices in Bend, Coos Bay, Grants Pass, Gresham, Hermiston, Medford, Pendleton, Roseburg, Salem, The Dalles and Warrenton. DEQ operates a new, pollution-control laboratory in Hillsboro. In addition to local programs, the Environmental Protection Agency (EPA) delegates authority to DEQ to operate federal environmental programs such as the Federal Clean Air, Clean Water, and Resource Conservation and Recovery Acts.

### TO QUALIFY

Your resume and cover letter will be reviewed to verify that you meet the minimum qualifications and desired attributes stated in this section. To receive credit your resume and cover letter must clearly show that you have the following experience and skills:

- **Six years of management experience related to environmental science, engineering, policy or related field;** In addition, your experience must include responsibility for each of the following:
  - a) Development and implementation of program rules and policies;
  - b) Development and implementation of long- and short-range goals and plans;
  - c) Program evaluation; and
  - d) Budget preparation.

Graduate level course work (48 quarter or 32 semester hours) in management may be substituted for one year of the required experience.

In your resume you must clearly describe your experience in each of the a), b), c), d) areas listed. Failure to provide this information may result in eliminating your application from further consideration.



## DESIRED ATTRIBUTES

- Demonstrated commitment to environmental protection, including experience in environmental restoration enhancement and maintenance
- Demonstrated success in leading an environmental program to greater protection of natural resources
- Demonstrated understanding or experience with promoting and implementing sustainable practices
- Demonstrated experience inspiring and motivating staff
- Experience building consensus, managing conflict and collaborative decision making
- Knowledge of regulatory laws and environmental programs/issues
- Demonstrated success in regulatory oversight including enforcement of rules, laws and statutes
- Knowledge of and experience in modern management practices and principles including personnel management
- Demonstrated success providing leadership and vision to a medium/large organization
- Strong written and oral communication skills with diverse influential audiences
- Experience forming collaborative and productive partnerships with a diverse set of stakeholders and staff
- Experience in the development, implementation and evaluation of strategic organizational goals, plans and policies
- Experience in an executive level position that included legislative and rulemaking processes
- Demonstrated ability to work with diverse populations
- Knowledge and skill to support environmental justice
- Experience in identification and advocacy for legislation
- Experience employing innovative solutions to environmental problems, including climate change, environmental health, and water and air quality

Only the candidates whose experience most closely match the qualifications and desired attributes of this position will be invited to an interview.

## SCOPE OF THE POSITION

The DEQ Director administers and enforces laws regulating air, water, and land pollution; administers programs delegated by the U. S. Environmental Protection Agency (EPA) including the Clean Air, Clean Water and Resource Conservation and Recovery Acts; administers state statutes including solid waste management, recycling, and environmental cleanup; serves as a member of the Governor's Natural Resources agency cabinet. The major responsibilities include but are not limited to the following:

**Program Administration/Direction-** Program responsibilities include directing the development and implementation of the Department strategic plan and performance measures; overseeing development of agency rules to assure compliance with state/federal laws and regulations, for approval by the EQC; monitoring state and federal legislation; negotiating contracts with EPA to carry out federal environmental programs and ; enforcing environmental laws of the state, and of the federal government where delegation has occurred, including levying civil penalties and seeking voluntary cooperation; and administering the directives of the Commission.

**Agency Management/Administration-** Develops the agency biennial budget request that implements the agency's strategic planning goals and presents it to the Legislature. Implements and manages the agency legislatively-approved budget. Maintains knowledge of environmental issues locally and nationally, and in sufficient technical depth, to allow for reasoned policy and administrative rules recommendations to the EQC. Provides guidance and leadership to DEQ management and staff. Provides direction and directs the implementation of agency affirmative action plans, employee safety activities, and other plans to attract, retain, and manage a diverse, well-trained work force.

**External/Outreach-** Anticipates issues and maintains rapport with the Oregon Legislature, Oregon's Congressional Delegation, editorial boards of newspapers in Oregon, directors of state and federal agencies, and special interest groups to assure DEQ success in receiving support and resources for environmental programs. Promotes awareness of environmental issues and agency programs to the public and the regulated community through public informational meetings, public hearings, and the media. Reports regularly to the Chairman of the EQC, and meets regularly with other natural resource agency directors, and Governor's Natural Resources Policy Advisor and reports, on appropriate topics, to the Director of the Dept. of Administrative Services.

**Supervision-** Plans, assigns and approves work, including developing, implementing and updating position descriptions and work plans. Prepares annual performance appraisals; recommends appropriate personnel actions. Disciplines and rewards staff according to policy and collective bargaining agreement. Directs the investigation, responds and facilitates resolution of grievances and complaints. Directs the management of recruitment in interviewing, reference checking, and makes hiring decisions in accordance with agency policy, goals and programs such as affirmative action, injured worker, and employment laws. Evaluates and implements unit training needs to ensure staff are prepared to perform assigned duties including evaluation and creation of opportunities for staff development. Handles personnel issues expeditiously according to procedures and collective bargaining agreement.

## **WORKING CONDITIONS**

Most work is performed in a typical office environment with extensive public contact by telephone and in person. Frequent exposure to intense pressure from people and interest groups with conflicting interests and politically sensitive positions. Involves substantial travel in-state and nationally to attend meetings and conferences. Must possess a valid driver's license and a good driving record or be able to provide an acceptable alternate method of transportation. The person in this position works a professional workweek (8 a.m. to 5 p.m., Monday through Friday) and the incumbent's flexibility to this work schedule is considered a condition of employment. It is understood that the hours of work may vary from day to day, week to week and the work may often exceed 40 hours per week.

## **APPLICATION**

**Interested persons are asked to submit the following four (4) documents:**

- 1. A Resume**
- 2. A Cover Letter** (No more than five pages describing how your experience and education meet the qualifications and **desired attributes** described in "To Qualify" section of this announcement.)
- 3. A List of Professional References** that include at least two in each of the following categories: Peers, Subordinates, and Superiors.
- 4. A completed Executive Service Applicant Information Form**

**Please deliver, mail or fax your materials (by the deadline on this recruitment) to:**

Twyla Lawson  
Executive Recruitments  
Department of Administrative Services  
155 Cottage St. U40  
Salem, OR 97310  
Fax (503) 378-4596

**OR** Email your completed materials to: [executive.recruitments@state.or.us](mailto:executive.recruitments@state.or.us)

**\* Please put "DEQ Director" in the subject line**

***The Oregon Department of Administrative Services and the Department of Environmental Quality are proud to be an equal opportunity, affirmative action employer committed to a diverse work place.***

NOTICE of results will be sent by mail. Although we are not required to delay our selection process, you may request a review of the results. Your request must be received within 10 days from the date of the notice. Additional information cannot be accepted. However, if the recruitment is still open, you may submit a new application, which must be received in our office by the close date. **SUBMIT** only the required materials. **KEEP** a copy of your application for job interviews. **COPIES ARE NOT PROVIDED.** The pay on all announcements may change without notice. **CURRENT JOB OPENINGS** and information on application forms are available through: World Wide Web - <http://www.oregonjobs.org>

AFSCME Comments to EQC  
December 13, 2007

Thank you for the opportunity to make these comments on behalf of AFSCME's members regarding qualities for the next DEQ Director.

The Department of Environmental Quality epitomizes as much as any other private or public organization in the state, the very qualities that make Oregon a special place. The Department protects and restores Oregon's environmental quality through a complex marriage of science and policy rooted in the vision, desires and expectations of Oregonians. The role of the Department's Director is pivotal to serving the will of Oregonians through agency action.

The Department has been under stress for a number of years with lean, if not declining, budgets and resources. Current contract negotiations are also demoralizing to staff. In addition, recent partial budget restorations will increase expectation for increasing performance of the agency and its staff. This is a critical time for the Department to reposition itself as strong and active force for protecting Oregon's air, water, and land resources. Staff are dedicated to the mission of the Department and are anxious to follow a leader who has demonstrated the skills necessary to be the standard-bearer in our pursuit of environmental excellence. In that regard, we are looking for a leader who will ask more of us, not less.

As the engine that powers the Department, DEQ staff are looking for well-rounded leadership. More specifically, we are looking for a balance of head, heart and guts.

Head: We seek a director who can take complex scientific, legal, economic and political issues, find a fresh perspective, move boundaries, and create a successful strategy for environmental excellence.

- A Director needs to be familiar with scientific methods of investigation and analysis and understanding of complex legal issues, yet we are not necessarily asking for the smartest person in the room. As a unit, Department staff are smart and experienced and looking forward to being a resource to management to produce excellence and support risk taking, in pursuit of the Department's mission.
- A Director who has demonstrated they can impart a strongly held system of beliefs that staff can understand and support as the Department's foundation for analysis and decision making.

Heart: We seek a Director who can achieve a balance between people needs and Department objectives. As an environmental agency, we strive for environmental sustainability. We should also strive for agency sustainability.

- A Director who has been successful at establishing and maintaining a working environment where staff work with diligence, enthusiasm, and creativity.

- A Director who has built a new work force within a workplace. If people don't feel valued in their work, they leave jobs far more readily than those who do. Since 2004, 20% of our workforce has moved on. Of the people hired to replace them, 24% have already moved on. There is a serious problem within the agency calling for immediate and rigorous attention.

A recent assessment of the Department's culture concluded that "the three most salient issues were: a lack of emotional safety, boundary management problems, and poor communications. The observed symptoms were:

- An inability to complete actions (fully implement policies, etc.)
  - Crisis-oriented living
  - Manager burnout (multiple iterations of tasks, unspecified stopping points, inability to delegate)
  - Mental exhaustion
  - Feeling of disrespect
  - Exclusion and disapproval
  - Paternalism; feeling manipulated or patronized
  - Feeling left out of decisions that affect their personal welfare
  - Feeling like professional opinions are being disregarded
  - The 'walking wounded'
  - Pervasive fear"
- A director who can demonstrate the ability to instill a management style that keeps people's requirements in mind without forgetting the demands on the Department. Future innovation and creativity will be an absolute requirement for the Department to meet it's obligations with the reduction in resources we have experienced over the past decade. Innovation and creativity thrive in environments where staff feel safe. At this time there is a culture of fear in portions of the agency that stifle true excellence and improvement.
  - A Director who has created an environment where people want to stay and has the ability to attract outside talent as well.

Guts: We seek a Director who simply has the courage to do the right thing. A Director must do right for themselves, the Department, our stakeholders, and the environment.

- A Director who has demonstrated the guts to make decisions that may have unpleasant consequences. As staff, we are ready to fight the good fight on behalf of the environment even though it may lead to some setbacks.
- A Director who respects staff input when balancing the relative risks and rewards of future actions. We appreciate being asked for our input. We will be willing to put it all on the line to implement policies and actions for a Director we believe in.

More than anything else, we want to work in an agency that acts with unyielding integrity.

Christine Caurant  
Conservation Organizer  
Sierra Club  
2950 SE Stark St., Suite 100  
Portland, OR 97214

Environmental Quality Commission  
811 Sixth Ave.  
Portland, OR 97204

Dear Environmental Quality Commission Members and Invited Guests,

Thank you for this opportunity to provide public comment on the criteria for selecting a new director for the DEQ. I am speaking today on behalf of the Sierra Club and our over 23,000 members in Oregon. Upon reviewing the "Draft Job Announcement", "Staff Report", and "Stakeholder Survey Results", we would like to provide the following comments for the record.

First, we urge the Commission to adjust the specific qualification and desired attribute criteria to explicitly require that the new Director have a background in conservation of Oregon's natural resources. The new Director should be an aggressive advocate for Oregon's air, water and land. This means that candidates need not only have a background in "environmental sciences, or a related field" (as the Draft Job Description states) but also a passionate philosophical commitment to protecting Oregon's resources for future generations. The DEQ Stakeholder Survey clearly indicates that stakeholders feel the same. In the survey results over 51 percent of respondents answered that "Ensuring the Environmental Quality Commission has the information and guidance to make sound decisions in the public's best interest" was "Very Important" in a successful DEQ Director. This indicates that stakeholders want the new DEQ Director to protect the public's best interest—which is the protection and conservation of our natural resources.

---

Correspondingly, the stakeholder survey also revealed that the public looks to the Director to provide vision and forward progress for the agency. The words "vision" and "progress" must not be tossed about lightly. We encourage the EQC to adjust the criteria to explicitly state that the Director will lead the DEQ toward quantifiably improving the state of Oregon's air, land, and water resources. The new Director must provide the vision to promote innovative programs to proactively protect and restore our natural resources; the certitude and know-how to aggressively seek funding from the legislature; and the commitment to engage with the public and actively seek and respect their input. The new director must take this opportunity to lead by example and create a true culture shift at the DEQ—one that values and promotes public participation, demands action from polluters, and restores public confidence in the agency.

Finally, the new Director must demonstrate that they can be an effective manager of DEQ's field and administrative teams—and coordinating all of these teams'

implementation of agency programs. Oregon needs a talented and dynamic individual who can pull the community together around issues, someone astute enough in state level politics that they can hit the ground running and achieve results. The Sierra Club hopes the EQC will choose someone who can clearly articulate how we will start seeing less pollution in our rivers, fewer toxics in our air, and long range thinking for the health of our communities.

In summary, the Sierra Club recommends that the EQC adjust the criteria for the new Director to include the following explicit qualities and experiences: 1) a background in conservation of natural resources, 2) a clear demonstration of their vision of how they will move the agency toward progress and finally, 3) evidence of their ability to lead an environmental program to greater protection of natural resources through effective management.

Thank you again for this opportunity for public comment.

Sincerely,

A handwritten signature in black ink, appearing to read 'CCF', written over a horizontal line.

Christine Caurant

Agenda Item D, Action Item: Appointment of Interim Director and Draft Criteria for New Director Selection  
December 13-14, 2007 EQC Meeting  
Attachment A

**PRINCIPAL EXECUTIVE/MANAGER H**

**(Director of the Department of Environmental Quality)**

**\$88,116 - \$136,320 ANNUALLY**

**Announcement Number: DRAFT####**  
**Classification Number: Z7008**  
**Open December 15th 2007 (or sooner, if possible)**  
**Close: Open Until Filled\***  
**Location: Portland, Oregon**

**\*The first review of applications will begin January 15, 2007 and the hiring committee may decide to close the announcement at that time. For immediate consideration, please APPLY NOW.**

The Department of Environmental Quality has an exceptional opportunity for an experienced leader to serve as the Agency Director. The Director reports to, and is selected by the Environmental Quality Commission (EQC), a volunteer five-member policy and administrative commission appointed by the Governor. Informally, the Director also reports to the Governor, through the Governor's Natural Resources Policy Advisor. This is a permanent, full-time, executive service position located in Portland, Oregon. If you are hired, you will become part of the State's Executive Service team.

**AGENCY OVERVIEW**

The mission of the Department of Environmental Quality is to be an active leader in restoring, enhancing and maintaining the quality of, Oregon's air, water and land. The Department has approximately 800 positions and a budget of \$300 million dollars. 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.

DEQ staff use a combination of public outreach, technical assistance, permitting, inspections, and enforcement as tools to help public and private facilities and citizens understand and comply with state and federal environmental regulations.

The DEQ staff includes scientists, engineers, technicians, administrators, and environmental specialists, among others. The agency's headquarters office is located in Portland with regional administrative offices in Eugene, Pendleton and Portland; and field offices in Bend, Coos Bay, Grants Pass, Gresham, Hermiston, Medford, Pendleton, Roseburg, Salem, The Dalles and Warrenton. DEQ operates a new, pollution-control laboratory in Hillsboro. In addition to local programs, the Environmental Protection Agency (EPA) delegates authority to DEQ to operate federal environmental programs such as the Federal Clean Air, Clean Water, and Resource Conservation and Recovery Acts.

**TO QUALIFY**

Your resume and cover letter will be reviewed to verify that you meet the minimum qualifications and desired attributes stated in this section. To receive credit your resume and cover letter must clearly show that you have the following experience and skills:

- **Six years of management experience related to environmental sciences, or related field;** In addition, your experience must include responsibility for each of the following:
  - a) Development and implementation of program rules and policies;
  - b) Development and implementation of long- and short-range goals and plans;
  - c) Program evaluation, and with a focus on results
  - d) Budget preparation and/or financial management

Graduate level course work (48 quarter or 32 semester hours) in management may be substituted for one year of the required experience.

## Comments from Andrea D'Armi, UEC

### ~~Desired Attributes~~ Desired Attributes (to add)

- Demonstrated track record of accountability and achieving results;
- Experience managing, inspiring and motivating a large staff;
- Experience employing innovative solutions to environmental problems and a commitment to carrying out the rules and regulations;
- Familiarity and/or experience with key environmental issues, including climate change, environmental health, water and air quality;



- **Six years of management experience related to environmental science, engineering, policy or related field;** In addition, your experience must include responsibility for each of the following:
  - a) Development and implementation of program rules and policies;
  - b) Development and implementation of long- and short-range goals and plans;
  - c) Program evaluation; and
  - d) Budget preparation.

Graduate level course work (48 quarter or 32 semester hours) in management may be substituted for one year of the required experience.

**In your resume you must clearly describe your experience in each of the a), b), c), d) areas listed. Failure to provide this information may result in eliminating your application from further consideration.**

**DESIRED ATTRIBUTES**

- Commitment to environmental protection, including experience in environmental restoration enhancement and maintenance.
- Demonstrated ability to lead an environmental program to greater protection of natural resources
- Demonstrated understanding or experience with sustainable practices
- Demonstrated experience inspiring and motivating staff
- Experience building consensus, managing conflict and decision making
- Knowledge of regulatory law, environmental programs/issues
- Experience in regulatory oversight, including enforcement of rules, laws and statutes
- Knowledge of and experience in modern management practices and principles including personnel management
- Experience providing leadership, and vision to a medium/large organization with a demonstrated track record of results
- Strong written and oral communication skills with diverse influential audiences
- Experience forming collaborative and productive partnerships with a diverse set of stakeholders and staff

Formatted: Font: 12 pt  
 Formatted: Space After: 12 pt  
 Formatted: Bullets and Numbering

Deleted: principles

Deleted: and

- Experience in the development, implementation and evaluation of strategic organizational goals, plans and policies
- Experience in an executive level position that included legislative and rulemaking processes
- Demonstrated ability to work with diverse populations in support of environmental justice. Experience in identification and advocacy for legislation
- Experience employing innovative solutions to environmental problems, including climate change, environmental health, water and air quality

Deleted: ¶

Formatted: Bullets and Numbering

Deleted: <#>¶

4

# Oregon Environmental Quality Commission

Public Forum  
Request to Present Information

Agenda Item \_\_\_ or  
Topic of Presentation Director Position

Travis Williams

Name (Please print clearly)

1595 SE Water Ave, Pdx 97214

Address

Willamette Riverkeeper

Affiliation

Email (optional)

Phone (optional)

✓

5

# Oregon Environmental Quality Commission

Public Forum  
Request to Present Information

Agenda Item \_\_\_ or  
Topic of Presentation DGR Comm's. BQL Meeting

Glenn Thompson

Name (Please print clearly)

6925 SE 21<sup>st</sup> Ave

Address

Spore Club/Citizen

Affiliation

Email (optional)

Phone (optional)

✓

3

# Oregon Environmental Quality Commission

Public Forum  
Request to Present Information

Agenda Item D or  
Topic of Presentation \_\_\_\_\_

Andrea Durbin

Name (Please print clearly)

Address \_\_\_\_\_

Oregon Environmental Council

Affiliation

Email (optional)

Phone (optional)



2

# Oregon Environmental Quality Commission

Public Forum  
Request to Present Information

Agenda Item \_\_\_\_\_ or  
Topic of Presentation

Public Comment Criteria for new director selection

Christine Couerant

Name (Please print clearly)

2950 SE Stark St, Suite 100 Portland OR 97214

Address

Sierra Club

(503) 243-6656 x 312

Affiliation

Email (optional)

Phone (optional)



Thursday

①

# Oregon Environmental Quality Commission

Public Forum  
Request to Present Information

Agenda Item E or  
Topic of Presentation Public Comment - DEQ staff

Comments on appointment of new Director  
Name (Please print clearly)

Richard DeZeeuw

Address  
811 SW 6th Ave.  
Portland, OR 97201

Affiliation AFSCME

Email (optional)

Phone (optional)  
503 229-6240

✓

AFSCME Comments to EQC  
December 13, 2007

Thank you for the opportunity to make these comments on behalf of AFSCME's members regarding qualities for the next DEQ Director.

The Department of Environmental Quality epitomizes as much as any other private or public organization in the state, the very qualities that make Oregon a special place. The Department protects and restores Oregon's environmental quality through a complex marriage of science and policy rooted in the vision, desires and expectations of Oregonians. The role of the Department's Director is pivotal to serving the will of Oregonians through agency action.

The Department has been under stress for a number of years with lean, if not declining, budgets and resources. Current contract negotiations are also demoralizing to staff. In addition, recent partial budget restorations will increase expectation for increasing performance of the agency and its staff. This is a critical time for the Department to reposition itself as strong and active force for protecting Oregon's air, water, and land resources. Staff are dedicated to the mission of the Department and are anxious to follow a leader who has demonstrated the skills necessary to be the standard-bearer in our pursuit of environmental excellence. In that regard, we are looking for a leader who will ask more of us, not less.

As the engine that powers the Department, DEQ staff are looking for well-rounded leadership. More specifically, we are looking for a balance of head, heart and guts.

Head: We seek a director who can take complex scientific, legal, economic and political issues, find a fresh perspective, move boundaries, and create a successful strategy for environmental excellence.

- A Director needs to be familiar with scientific methods of investigation and analysis and understanding of complex legal issues, yet we are not necessarily asking for the smartest person in the room. As a unit, Department staff are smart and experienced and looking forward to being a resource to management to produce excellence and support risk taking, in pursuit of the Department's mission.
- A Director who has demonstrated they can impart a strongly held system of beliefs that staff can understand and support as the Department's foundation for analysis and decision making.

Heart: We seek a Director who can achieve a balance between people needs and Department objectives. As an environmental agency, we strive for environmental sustainability. We should also strive for agency sustainability.

- A Director who has been successful at establishing and maintaining a working environment where staff work with diligence, enthusiasm, and creativity.

- A Director who has built a new work force within a workplace. If people don't feel valued in their work, they leave jobs far more readily than those who do. Since 2004, 20% of our workforce has moved on. Of the people hired to replace them, 24% have already moved on. There is a serious problem within the agency calling for immediate and rigorous attention.

A recent assessment of the Department's culture concluded that "the three most salient issues were: a lack of emotional safety, boundary management problems, and poor communications. The observed symptoms were:

- An inability to complete actions (fully implement policies, etc.)
  - Crisis-oriented living
  - Manager burnout (multiple iterations of tasks, unspecified stopping points, inability to delegate)
  - Mental exhaustion
  - Feeling of disrespect
  - Exclusion and disapproval
  - Paternalism; feeling manipulated or patronized
  - Feeling left out of decisions that affect their personal welfare
  - Feeling like professional opinions are being disregarded
  - The 'walking wounded'
  - Pervasive fear"
- A director who can demonstrate the ability to instill a management style that keeps people's requirements in mind without forgetting the demands on the Department. Future innovation and creativity will be an absolute requirement for the Department to meet its obligations with the reduction in resources we have experienced over the past decade. Innovation and creativity thrive in environments where staff feel safe. At this time there is a culture of fear in portions of the agency that stifle true excellence and improvement.
  - A Director who has created an environment where people want to stay and has the ability to attract outside talent as well.

Guts: We seek a Director who simply has the courage to do the right thing. A Director must do right for themselves, the Department, our stakeholders, and the environment.

- A Director who has demonstrated the guts to make decisions that may have unpleasant consequences. As staff, we are ready to fight the good fight on behalf of the environment even though it may lead to some setbacks.
- A Director who respects staff input when balancing the relative risks and rewards of future actions. We appreciate being asked for our input. We will be willing to put it all on the line to implement policies and actions for a Director we believe in.

More than anything else, we want to work in an agency that acts with unyielding integrity.

Christine Caurant  
Conservation Organizer  
Sierra Club  
2950 SE Stark St., Suite 100  
Portland, OR 97214

Environmental Quality Commission  
811 Sixth Ave.  
Portland, OR 97204

Dear Environmental Quality Commission Members and Invited Guests,

Thank you for this opportunity to provide public comment on the criteria for selecting a new director for the DEQ. I am speaking today on behalf of the Sierra Club and our over 23,000 members in Oregon. Upon reviewing the "Draft Job Announcement", "Staff Report", and "Stakeholder Survey Results", we would like to provide the following comments for the record.

First, we urge the Commission to adjust the specific qualification and desired attribute criteria to explicitly require that the new Director have a background in conservation of Oregon's natural resources. The new Director should be an aggressive advocate for Oregon's air, water and land. This means that candidates need not only have a background in "environmental sciences, or a related field" (as the Draft Job Description states) but also a passionate philosophical commitment to protecting Oregon's resources for future generations. The DEQ Stakeholder Survey clearly indicates that stakeholders feel the same. In the survey results over 51 percent of respondents answered that "Ensuring the Environmental Quality Commission has the information and guidance to make sound decisions in the public's best interest" was "Very Important" in a successful DEQ Director. This indicates that stakeholders want the new DEQ Director to protect the public's best interest—which is the protection and conservation of our natural resources.

Correspondingly, the stakeholder survey also revealed that the public looks to the Director to provide vision and forward progress for the agency. The words "vision" and "progress" must not be tossed about lightly. We encourage the EQC to adjust the criteria to explicitly state that the Director will lead the DEQ toward quantifiably improving the state of Oregon's air, land, and water resources. The new Director must provide the vision to promote innovative programs to proactively protect and restore our natural resources; the certitude and know-how to aggressively seek funding from the legislature; and the commitment to engage with the public and actively seek and respect their input. The new director must take this opportunity to lead by example and create a true culture shift at the DEQ—one that values and promotes public participation, demands action from polluters, and restores public confidence in the agency.

Finally, the new Director must demonstrate that they can be an effective manager of DEQ's field and administrative teams—and coordinating all of these teams'




implementation of agency programs. Oregon needs a talented and dynamic individual who can pull the community together around issues, someone astute enough in state level politics that they can hit the ground running and achieve results. The Sierra Club hopes the EQC will choose someone who can clearly articulate how we will start seeing less pollution in our rivers, fewer toxics in our air, and long range thinking for the health of our communities.

In summary, the Sierra Club recommends that the EQC adjust the criteria for the new Director to include the following explicit qualities and experiences: 1) a background in conservation of natural resources, 2) a clear demonstration of their vision of how they will move the agency toward progress and finally, 3) evidence of their ability to lead an environmental program to greater protection of natural resources through effective management.

Thank you again for this opportunity for public comment.

Sincerely,



Christine Caurant

Comments from Andrea D'Armi, UEC

~~Desired Attributes~~

Desired Attributes (to add)

- Demonstrated track record of accountability and achieving results;
- Experience managing, inspiring and motivating a large staff;
- Experience employing innovative solutions to environmental problems and a commitment to carrying out the rules and regulations;
- Familiarity and/or experience with key environmental issues, including climate change, environmental health, water and air quality;

Agenda Item D, Action Item: Appointment of Interim Director and Draft Criteria for New Director Selection  
December 13-14, 2007 EQC Meeting  
Attachment A

**PRINCIPAL EXECUTIVE/MANAGER H**

**(Director of the Department of Environmental Quality)**

**\$88,116 - \$136,320 ANNUALLY**

**Announcement Number: DRAFT####**  
**Classification Number: Z7008**  
**Open December 15th 2007 (or sooner, if possible)**  
**Close: Open Until Filled\***  
**Location: Portland, Oregon**

**\*The first review of applications will begin January 15, 2007 and the hiring committee may decide to close the announcement at that time. For immediate consideration, please APPLY NOW.**

The Department of Environmental Quality has an exceptional opportunity for an experienced leader to serve as the Agency Director. The Director reports to, and is selected by the Environmental Quality Commission (EQC), a volunteer five-member policy and administrative commission appointed by the Governor. Informally, the Director also reports to the Governor, through the Governor's Natural Resources Policy Advisor. This is a permanent, full-time, executive service position located in Portland, Oregon. If you are hired, you will become part of the State's Executive Service team.

**AGENCY OVERVIEW**

The mission of the Department of Environmental Quality is to be an active leader in restoring, enhancing and maintaining the quality of, Oregon's air, water and land. The Department has approximately 800 positions and a budget of \$300 million dollars. 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.

DEQ staff use a combination of public outreach, technical assistance, permitting, inspections, and enforcement as tools to help public and private facilities and citizens understand and comply with state and federal environmental regulations.

The DEQ staff includes scientists, engineers, technicians, administrators, and environmental specialists, among others. The agency's headquarters office is located in Portland with regional administrative offices in Eugene, Pendleton and Portland; and field offices in Bend, Coos Bay, Grants Pass, Gresham, Hermiston, Medford, Pendleton, Roseburg, Salem, The Dalles and Warrenton. DEQ operates a new, pollution-control laboratory in Hillsboro. In addition to local programs, the Environmental Protection Agency (EPA) delegates authority to DEQ to operate federal environmental programs such as the Federal Clean Air, Clean Water, and Resource Conservation and Recovery Acts.

**TO QUALIFY**

Your resume and cover letter will be reviewed to verify that you meet the minimum qualifications and desired attributes stated in this section. To receive credit your resume and cover letter must clearly show that you have the following experience and skills:

- **Six years of management experience related to environmental sciences, or related field;** In addition, your experience must include responsibility for each of the following:
  - a) Development and implementation of program rules and policies;
  - b) Development and implementation of long- and short-range goals and plans;
  - c) Program evaluation, and with a focus on results
  - d) Budget preparation and/or financial management

Graduate level course work (48 quarter or 32 semester hours) in management may be substituted for one year of the required experience.

Agenda Item D, Action Item: Appointment of Interim Director and Draft Criteria for New Director Selection  
December 13-14, 2007 EQC Meeting  
Attachment A

**In your resume you must clearly describe your experience in each of the a), b), c), d) areas listed. Failure to provide this information may result in eliminating your application from further consideration.**

**DESIRED ATTRIBUTES**

- Experience building consensus, managing conflict and decision making
- Knowledge of regulatory law, environmental programs/issues
- Experience in regulatory oversight, including enforcement of rules, laws and statutes
- Knowledge of modern management practices and principles
- Experience providing leadership and vision to a medium/large organization
- Strong written and oral communication skills with diverse influential audiences
- Experience forming collaborative and productive partnerships with a diverse set of stakeholders and staff
- Experience in the development, implementation and evaluation of strategic organizational goals, plans and policies
- Experience in an executive level position that included legislative and rulemaking processes

Only the candidates whose experience most closely match the qualifications and desired attributes of this position will be invited to an interview.

**SCOPE OF THE POSITION**

The DEQ Director administers and enforces laws regulating air, water, and land pollution; administers programs delegated by the U. S. Environmental Protection Agency (EPA) including the Clean Air, Clean Water and Resource Conservation and Recovery Acts; administers state statutes including solid waste management, recycling, and environmental cleanup; serves as a member of the Governor's Natural Resources agency cabinet. The major responsibilities include but are not limited to the following:

**Program Administration/Direction- Program responsibilities include** directing the development and implementation of the Department strategic plan and performance measures; overseeing development of agency rules to assure compliance with state/federal laws and regulations, for approval by the EQC; monitoring state and federal legislation; negotiating contracts with EPA to carry out federal environmental programs and ; enforcing environmental laws of the state, and of the federal government where delegation has occurred, including levying civil penalties and seeking voluntary cooperation; and administering the directives of the Commission.

**Agency Management/Administration-** Develops the agency biennial budget request that implements the agency's strategic planning goals and presents it to the Legislature. Implements and manages, the agency legislatively-approved budget. Maintains knowledge of environmental issues locally and nationally, and in sufficient technical depth, to allow for reasoned policy and administrative rules recommendations to the EQC. Provides guidance and leadership to DEQ management and staff. Provides direction and directs the implementation of agency affirmative action plans, employee safety activities, and other plans to attract, retain, and manage a diverse, well-trained work force.

**External/Outreach-** Anticipates issues and maintains rapport with the Oregon Legislature, Oregon's Congressional Delegation, editorial boards of newspapers in Oregon, directors of state and federal agencies, and special interest groups to assure DEQ success in receiving support and resources for environmental programs. Promotes awareness of environmental issues and agency programs to the public and the regulated community through public informational meetings, public hearings, and the media. Reports regularly to the Chairman of the EQC, and meets regularly with other natural resource agency directors, and Governor's Natural Resources Policy Advisor and reports, on appropriate topics, to the Director of the Dept. of Administrative Services.

**Supervision-** Plans, assigns and approves work, including developing, implementing and updating position descriptions and work plans. Prepares annual performance appraisals; recommends appropriate personnel actions. Disciplines and rewards staff according to policy and collective bargaining agreement. Directs the investigation, responds and facilitates resolution of grievances and complaints. Directs the management of recruitment in interviewing, reference checking, and makes hiring decisions in accordance with agency policy, goals and programs such as affirmative action, injured worker, and employment laws. Evaluates and implements unit training needs to ensure staff are prepared to perform assigned duties including evaluation and creation of opportunities for staff development. Handles personnel issues expeditiously according to procedures and collective bargaining agreement.

- **Six years of management experience related to environmental science, engineering, policy or related field;** In addition, your experience must include responsibility for each of the following:
  - a) Development and implementation of program rules and policies;
  - b) Development and implementation of long- and short-range goals and plans;
  - c) Program evaluation; and
  - d) Budget preparation.

Graduate level course work (48 quarter or 32 semester hours) in management may be substituted for one year of the required experience.

**In your resume you must clearly describe your experience in each of the a), b), c), d) areas listed. Failure to provide this information may result in eliminating your application from further consideration.**

**DESIRED ATTRIBUTES**

- Commitment to environmental protection, including experience in environmental restoration enhancement and maintenance.
- Demonstrated ability to lead an environmental program to greater protection of natural resources
- Demonstrated understanding or experience with sustainable practices
- Demonstrated experience inspiring and motivating staff
- Experience building consensus, managing conflict and decision making
- Knowledge of regulatory law, environmental programs/issues
- Experience in regulatory oversight, including enforcement of rules, laws and statutes
- Knowledge of and experience in modern management practices and principles including personnel management
- Experience providing leadership, and vision to a medium/large organization with a demonstrated track record of results

Formatted: Font: 12 pt  
 Formatted: Space After: 12 pt  
 Formatted: Bullets and Numbering

Deleted: principles

Deleted: and

- Strong written and oral communication skills with diverse influential audiences
- Experience forming collaborative and productive partnerships with a diverse set of stakeholders and staff

- Experience in the development, implementation and evaluation of strategic organizational goals, plans and policies
- Experience in an executive level position that included legislative and rulemaking processes
- Demonstrated ability to work with diverse populations in support of environmental justice. Experience in identification and advocacy for legislation
- Experience employing innovative solutions to environmental problems, including climate change, environmental health, water and air quality

Deleted: ¶

Formatted: Bullets and Numbering

Deleted: <#>¶

**STEVENS-SCHWENGER Joanie**

---

**From:** LAWSON Twyla  
**Sent:** Friday, December 14, 2007 8:35 AM  
**To:** billblosserpr@yahoo.com  
**Cc:** HOLLAMON Pattie; STEVENS-SCHWENGER Joanie; LAWSON Twyla  
**Subject:** DEQ Director Recruitment Open

**Bill,**

The recruitment was opened by the end of the day yesterday. Here is a link to the announcement: [http://www.emp.state.or.us/jobs/statejobs/index.cfm?location\\_content=jobdisplay.cfm&agency\\_menu=N&ord=11002&system=WIOA&type=N&lang=I](http://www.emp.state.or.us/jobs/statejobs/index.cfm?location_content=jobdisplay.cfm&agency_menu=N&ord=11002&system=WIOA&type=N&lang=I)  
It is also attached. I am also having it placed under the featured recruitments link on the jobs page this morning.

I have a different board meeting this morning and meetings all afternoon. As soon as I have the opportunity I will put together the advertising/outreach information. It most likely will be by Tuesday next week. I hope that works.

Thank you,

**Twyla Lawson, PHR**  
Senior Recruitment Consultant  
Statewide Training, Development & Recruitment Services, DAS/HRSD  
Office: (503) 373-7677  
<http://www.oregon.gov/DAS/HR/Recruitment.shtml>

**Confidentiality Note:** This electronic mail transmission contains information belonging to the Department of Administrative Services, Human Resource Services Division. This information may be confidential and/or legally privileged and is intended for the use of the addressee designated above. If you are not the intended recipient, you are hereby notified that any disclosure, copying, distribution or the taking of any action in reliance on the contents of this electronic information is strictly prohibited. If you have received this electronic mail in error, please delete it and notify us immediately.

## PRINCIPAL EXECUTIVE/MANAGER H

(Director of the Department of Environmental Quality)

**\$88,116 - \$136,320 ANNUALLY**

**Announcement Number: ES340001**

**Classification Number: Z7008**

**Open: December 13, 2007**

**Close: Open Until Filled\***

**Location: Portland, Oregon**

**\*The first review of applications will begin January 15, 2007 and the hiring committee may decide to close the announcement at that time. For immediate consideration, please APPLY NOW.**

The Department of Environmental Quality has an exceptional opportunity for an experienced leader to serve as the Agency Director. The Director reports to, and is selected by the Environmental Quality Commission (EQC), a volunteer five-member policy and administrative commission appointed by the Governor. Informally, the Director also reports to the Governor, through the Governor's Natural Resources Policy Advisor. This is a permanent, full-time, executive service position located in Portland, Oregon. If you are hired, you will become part of the State's Executive Service team.

### AGENCY OVERVIEW

The mission of the Department of Environmental Quality is to be an active leader in restoring, enhancing and maintaining the quality of, Oregon's air, water and land. The Department has approximately 800 positions and a budget of \$300 million dollars. 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.

DEQ staff use a combination of public outreach, technical assistance, permitting, inspections, and enforcement as tools to help public and private facilities and citizens understand and comply with state and federal environmental regulations.

The DEQ staff includes scientists, engineers, technicians, administrators, and environmental specialists, among others. The agency's headquarters office is located in Portland with regional administrative offices in Eugene, Pendleton and Portland; and field offices in Bend, Coos Bay, Grants Pass, Gresham, Hermiston, Medford, Pendleton, Roseburg, Salem, The Dalles and Warrenton. DEQ operates a new, pollution-control laboratory in Hillsboro. In addition to local programs, the Environmental Protection Agency (EPA) delegates authority to DEQ to operate federal environmental programs such as the Federal Clean Air, Clean Water, and Resource Conservation and Recovery Acts.

### TO QUALIFY

Your resume and cover letter will be reviewed to verify that you meet the minimum qualifications and desired attributes stated in this section. To receive credit your resume and cover letter must clearly show that you have the following experience and skills:

- **Six years of management experience related to environmental science, engineering, policy or related field;** In addition, your experience must include responsibility for each of the following:
  - a) Development and implementation of program rules and policies;
  - b) Development and implementation of long- and short-range goals and plans;
  - c) Program evaluation; and
  - d) Budget preparation.

Graduate level course work (48 quarter or 32 semester hours) in management may be substituted for one year of the required experience.

In your resume you must clearly describe your experience in each of the a), b), c), d) areas listed. Failure to provide this information may result in eliminating your application from further consideration.



## DESIRED ATTRIBUTES

- Demonstrated commitment to environmental protection, including experience in environmental restoration enhancement and maintenance
- Demonstrated success in leading an environmental program to greater protection of natural resources
- Demonstrated understanding or experience with promoting and implementing sustainable practices
- Demonstrated experience inspiring and motivating staff
- Experience building consensus, managing conflict and collaborative decision making
- Knowledge of regulatory laws and environmental programs/issues
- Demonstrated success in regulatory oversight including enforcement of rules, laws and statutes
- Knowledge of and experience in modern management practices and principles including personnel management
- Demonstrated success providing leadership and vision to a medium/large organization
- Strong written and oral communication skills with diverse influential audiences
- Experience forming collaborative and productive partnerships with a diverse set of stakeholders and staff
- Experience in the development, implementation and evaluation of strategic organizational goals, plans and policies
- Experience in an executive level position that included legislative and rulemaking processes
- Demonstrated ability to work with diverse populations
- Knowledge and skill to support environmental justice
- Experience in identification and advocacy for legislation
- Experience employing innovative solutions to environmental problems, including climate change, environmental health, and water and air quality

Only the candidates whose experience most closely match the qualifications and desired attributes of this position will be invited to an interview.

## SCOPE OF THE POSITION

The DEQ Director administers and enforces laws regulating air, water, and land pollution; administers programs delegated by the U. S. Environmental Protection Agency (EPA) including the Clean Air, Clean Water and Resource Conservation and Recovery Acts; administers state statutes including solid waste management, recycling, and environmental cleanup; serves as a member of the Governor's Natural Resources agency cabinet. The major responsibilities include but are not limited to the following:

**Program Administration/Direction-** Program responsibilities include directing the development and implementation of the Department strategic plan and performance measures; overseeing development of agency rules to assure compliance with state/federal laws and regulations, for approval by the EQC; monitoring state and federal legislation; negotiating contracts with EPA to carry out federal environmental programs and ; enforcing environmental laws of the state, and of the federal government where delegation has occurred, including levying civil penalties and seeking voluntary cooperation; and administering the directives of the Commission.

**Agency Management/Administration-** Develops the agency biennial budget request that implements the agency's strategic planning goals and presents it to the Legislature. Implements and manages the agency legislatively-approved budget. Maintains knowledge of environmental issues locally and nationally, and in sufficient technical depth, to allow for reasoned policy and administrative rules recommendations to the EQC. Provides guidance and leadership to DEQ management and staff. Provides direction and directs the implementation of agency affirmative action plans, employee safety activities, and other plans to attract, retain, and manage a diverse, well-trained work force.

**External/Outreach-** Anticipates issues and maintains rapport with the Oregon Legislature, Oregon's Congressional Delegation, editorial boards of newspapers in Oregon, directors of state and federal agencies, and special interest groups to assure DEQ success in receiving support and resources for environmental programs. Promotes awareness of environmental issues and agency programs to the public and the regulated community through public informational meetings, public hearings, and the media. Reports regularly to the Chairman of the EQC, and meets regularly with other natural resource agency directors, and Governor's Natural Resources Policy Advisor and reports, on appropriate topics, to the Director of the Dept. of Administrative Services.

**Supervision-** Plans, assigns and approves work, including developing, implementing and updating position descriptions and work plans. Prepares annual performance appraisals; recommends appropriate personnel actions. Disciplines and rewards staff according to policy and collective bargaining agreement. Directs the investigation, responds and facilitates resolution of grievances and complaints. Directs the management of recruitment in interviewing, reference checking, and makes hiring decisions in accordance with agency policy, goals and programs such as affirmative action, injured worker, and employment laws. Evaluates and implements unit training needs to ensure staff are prepared to perform assigned duties including evaluation and creation of opportunities for staff development. Handles personnel issues expeditiously according to procedures and collective bargaining agreement.

## **WORKING CONDITIONS**

Most work is performed in a typical office environment with extensive public contact by telephone and in person. Frequent exposure to intense pressure from people and interest groups with conflicting interests and politically sensitive positions. Involves substantial travel in-state and nationally to attend meetings and conferences. Must possess a valid driver's license and a good driving record or be able to provide an acceptable alternate method of transportation. The person in this position works a professional workweek (8 a.m. to 5 p.m., Monday through Friday) and the incumbent's flexibility to this work schedule is considered a condition of employment. It is understood that the hours of work may vary from day to day, week to week and the work may often exceed 40 hours per week.

## **APPLICATION**

**Interested persons are asked to submit the following four (4) documents:**

- 1. A Resume**
- 2. A Cover Letter** (No more than five pages describing how your experience and education meet the qualifications and **desired attributes** described in "To Qualify" section of this announcement.)
- 3. A List of Professional References** that include at least two in each of the following categories: Peers, Subordinates, and Superiors.
- 4. A completed Executive Service Applicant Information Form**

**Please deliver, mail or fax your materials (by the deadline on this recruitment) to:**

Twyla Lawson  
Executive Recruitments  
Department of Administrative Services  
155 Cottage St. U40  
Salem, OR 97310  
Fax (503) 378-4596

**OR** Email your completed materials to: [executive.recruitments@state.or.us](mailto:executive.recruitments@state.or.us)

**\* Please put "DEQ Director" in the subject line**

***The Oregon Department of Administrative Services and the Department of Environmental Quality are proud to be an equal opportunity, affirmative action employer committed to a diverse work place.***

NOTICE of results will be sent by mail. Although we are not required to delay our selection process, you may request a review of the results. Your request must be received within 10 days from the date of the notice. Additional information cannot be accepted. However, if the recruitment is still open, you may submit a new application, which must be received in our office by the close date. **SUBMIT** only the required materials. **KEEP** a copy of your application for job interviews. **COPIES ARE NOT PROVIDED.** The pay on all announcements may change without notice. **CURRENT JOB OPENINGS** and information on application forms are available through: World Wide Web - <http://www.oregonjobs.org>

- **Six years of management experience related to environmental science, engineering, policy or related field;** In addition, your experience must include responsibility for each of the following:
  - a) Development and Implementation of program rules and policies;
  - b) Development and implementation of long- and short-range goals and plans;
  - c) Program evaluation; and
  - d) Budget preparation.

Graduate level course work (48 quarter or 32 semester hours) in management may be substituted for one year of the required experience.

In your resume you must clearly describe your experience in each of the a), b), c), d) areas listed. Failure to provide this information may result in eliminating your application from further consideration.

*Twyla read this into the record  
DD moved  
BB 2<sup>nd</sup> ed  
unanimous vote  
in approval*

*Demonstrated*  
**DESIRED ATTRIBUTES**

- Commitment to environmental protection, including experience in environmental restoration, enhancement and maintenance.
- Demonstrated *success in leading* ability to lead an environmental program to greater protection of natural resources
- Demonstrated understanding or experience with *promoting & implementing* sustainable practices
- Demonstrated experience inspiring and motivating staff
- Experience *in* building consensus, managing conflict and *collaborative* decision making
- Knowledge of regulatory law *and* environmental programs/issues
- Experience in regulatory oversight *and* including enforcement of rules, laws and statutes
- Knowledge of *and* experience in modern management practices and principles including personnel management
- *Demonstrated success in* Experience providing leadership, and vision to a medium/large organization ~~with a demonstrated track record of results~~

Formatted: Font: 12 pt  
Formatted: Space After: 12 pt  
Formatted: Bullets and Numbering

Deleted: principles

Deleted: and

- Strong written and oral communication skills with diverse influential audiences
- Experience forming collaborative and productive partnerships with a diverse set of stakeholders and staff

State of Oregon  
Department of Environmental Quality

Memorandum

**Date:** December 12, 2007  
**To:** Environmental Quality Commission  
**From:** Dick Pedersen, Deputy Director  
**Subject:** Addendum to Agenda Item G  
Action Item: Pollution Control Tax Credit Considerations  
December 13-14, 2007 EQC Meeting

**Purpose of this Addendum** This addendum presents five additional applications for the Commission's Pollution Control Tax Credit consideration.

**Recommendation** Approve final certification of the facilities summarized in the Addendum to Attachment A and detailed in the Addendum to Attachment B.

**Updated Attachments**

- A. Summary of Recommendations
- B. Background and References for Final Certification
- E. Tax Expenditure Liability Report

Approved:

Section:

Division:

*Maggie Vandehey*  
*Gregory K. Alderson*

Report Prepared By: Maggie Vandehey  
Phone: (503) 229-6878

# **Addendum to Attachment B**

## **Background and References for Final Certifications**

### **Recommendation**

The Department recommends the Commission approve **\$80,735** in tax credits to **5** water pollution control facilities summarized in the Addendum to Attachment A.

The *Water* tab in Attachment B to Agenda Item G provides the Recommendation and Eligibility Criteria and References for the reviews detailed in the Addendum to Attachment B.

<b>7602</b> <b>Oregon Metallurgical Corporation</b> C Corp 93-0448167	Facility Cost Percentage Allocable X Maximum Percentage X Tax Credit	\$225,319 100% 35% <hr style="width: 100%;"/> \$78,862
---	---	---

**Description**

Wastewater treatment control system; emergency pump and pump house; secondary containment for lime pump; and modifications to Ponds 1 and 2

Oregon Metallurgical Corporation, doing business as Allvac, produces, refines, and forms titanium metal and associated alloys at the Albany, Oregon, plant. Raw materials used to produce titanium includes titanium tetrachloride and magnesium metal to produce ingots fabricated to customer specifications.

The applicant claims the following installations.

1. A wastewater treatment control system consists of Emerson Delta V controls, RS3 sub-control and Control Studio software. The system controls pH of the wastewater by adding acid or lime, starts or stops the pumps to control tank levels and adds polymer flocculating agents to facilitate settling and solids precipitation thus controlling turbidity.
2. An essential emergency pump and housing that consists of a 20-horse power Johnson Gear Company pump, serial number 170178, and 1.5-liter Isuzu diesel model 3CD1-DZP01 motor. The applicant also claims a pump and 8'7" x 12'8" pump house. The pump transfers untreated wastewater to the large emergency pond during upset conditions, such as a power outage, that would prevent the treatment facility from properly treating the wastewater. This pumping equipment reduces the possibility of permit violations for discharging untreated wastewater to the city sewer or creek. Once the upset condition has ceased, the pump transfers the wastewater back to the treatment system.
3. A secondary containment berm, 80.5" x 64" x 18", has a sloping floor to divert spillage to a wastewater treatment drain. The applicant installed the containment around the lime-addition system to protect the soil and groundwater from potential contamination or required clean up.
4. Modifications to wastewater settling Ponds 1 and 2 increased the height of the weirs to allow more water to accumulate before spilling over the weir for discharge. The increased residence time and settling distance allows solids to settle out thus reducing turbidity.

Modifications to Pond 1 included raising the weir by 1.44 feet, increasing capacity an additional 312,365 gallons. At a flow rate of 180,000 gallons per day, settling time increased by 41.6 hours before water would overflow the weir. Modifications to the weir on Pond 2 raised the elevation by 1.1 feet, increasing capacity an additional 287,980 gallons. At a flow rate of 180,000 gallons per day settling time increased by 38.4 hours before water would overflow the weir.

Agenda Item G, Action Item: Pollution Control Tax Credit Considerations  
December 13-14, 2007 EQC Meeting

The primary and most important purpose of the claimed facility is to comply with DEQ regulations and the City of Albany's industrial wastewater pretreatment standards. The federal Categorical Pretreatment Standards for Nonferrous Metals Manufacturing and Forming (40 CFR 421 & 471) regulate wastewaters from titanium manufacturing.

The applicant agreed with the Department's subtraction of \$37,307 for a weather barrier and demolition of a lime silo unrelated to pollution control. The State of Oregon issued eight Pollution Control Facilities Tax Credits to ORMET, now known as Allvac. Additionally, the state issued 133 certificates to TDY Industries, Inc at the Albany site. In 2006, the Commission certified the major part of the wastewater treatment project; no part of the claimed facility is a replacement of any previously certified facility. The wastewater treatment control system does not replace the previously certified manual controls; the applicant continues to operate the manual controls to supply inputs to the claimed Delta V system. The EQC did not certify the modified discharge weirs. The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3). The maximum tax credit is 35 percent because the facility is located within Linn County, a severely economically distressed area at the time of certification.

**Applicant Address**  
530 W 34th Avenue  
Albany, OR 97322

**Facility Address**  
Same as applicant address

Agenda Item G, Action Item: Pollution Control Tax Credit Considerations  
December 13-14, 2007 EQC Meeting

<b>7660</b>	Facility Cost		<b>\$1,081</b>
<b>Stephen W. Houghtaling, DDS</b>	Percentage Allocable	X	<b>100%</b>
	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$378</b>

**Description**

One REBEC model Catch 402 amalgam separator, serial number J402313-J30016118-07

Stephen Houghtaling, DDS operates a five-chair dental practice that generates amalgam waste particles. The applicant installed a separator to remove the particles.

The sole purpose of the separator is to prevent a substantial quantity of water pollution from discharging to the sanitary sewer. Amalgam contains mercury, an alloy of silver, tin and copper. If the separator did not remove amalgam waste, it could contaminate rivers and streams where fish absorb it. The primary environmental route of human exposure to mercury is from eating contaminated fish.

The EQC has not issued any tax credits to the applicant; therefore, the facility is not a replacement facility.

**Applicant Address**  
1785 Exchange Street  
Astoria, OR 97103

**Facility Address**  
Same as the applicant's address.



Agenda Item G, Action Item: Pollution Control Tax Credit Considerations  
December 13-14, 2007 EQC Meeting

<b>7661</b>	Facility Cost		<b>\$2,775</b>
Drs. Lee, Rusher and Marineau, DDS	Percentage Allocable	X	<b>100%</b>
	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$ 971</b>

**Description**

One – SolmeteX HG5 mercury removal system, serial number HG5-HV-B-0253

Drs. Lee, Rusher and Marineau, DDS operate an 11-chair dental practice that generates amalgam waste particles. The applicant installed a separator to remove the particles.

The sole purpose of the separator is to prevent a substantial quantity of water pollution from discharging to the sanitary sewer. Amalgam contains mercury, an alloy of silver, tin and copper. If the separator did not remove amalgam waste, it could contaminate rivers and streams where fish absorb it. The primary environmental route of human exposure to mercury is from eating contaminated fish.

The EQC has not issued any tax credits to the applicant; therefore, the facility is not a replacement facility.

**Applicant Address**  
12755 SW 2nd Street  
Beaverton, OR 97005

**Facility Address**  
Same as the applicant's address.

7662  
O'Neill S. Solanky  
LLC 72-1610393

Facility Cost		\$ 795
Percentage Allocable	X	100%
Maximum Percentage	X	35%
Tax Credit		<u>\$ 278</u>

**Description**

One – SolmeteX HG5 amalgam separator, serial number HG5-K-17753

Dr. O'Neill S. Solanky, DDS operates a dental practice that generates amalgam waste particles. The applicant installed a separator to remove the particles.

The sole purpose of the separator is to prevent a substantial quantity of water pollution from discharging to the sanitary sewer. Amalgam contains mercury, an alloy of silver, tin and copper. If the separator did not remove amalgam waste, it could contaminate rivers and streams where fish absorb it. The primary environmental route of human exposure to mercury is from eating contaminated fish.

The EQC has not issued any tax credits to the applicant; therefore, the facility is not a replacement facility.

**Applicant Address**  
426 Lancaster Drive NE  
Salem, OR 97301

**Facility Address**  
Same as the applicant's address.

Agenda Item G, Action Item: Pollution Control Tax Credit Considerations  
December 13-14, 2007 EQC Meeting

<b>7663</b>	Facility Cost		<b>\$ 701</b>
<b>Dr Nadia Winstead, DMD</b>	Percentage Allocable	X	<b>100%</b>
S Corp 20-3774575	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$ 245</b>

**Description**

One – SolmeteX HG5 amalgam separator, serial number HG5-K-17753

Dr. O’Neill S. Solanky, DDS operates a dental practice that generates amalgam waste particles. The applicant installed a separator to remove the particles.

The sole purpose of the separator is to prevent a substantial quantity of water pollution from discharging to the sanitary sewer. Amalgam contains mercury, an alloy of silver, tin and copper. If the separator did not remove amalgam waste, it could contaminate rivers and streams where fish absorb it. The primary environmental route of human exposure to mercury is from eating contaminated fish.

The EQC has not issued any tax credits to the applicant; therefore, the facility is not a replacement facility.

**Applicant Address**  
1590 Liberty Street SE  
Salem, OR 97302

**Facility Address**  
Same as the applicant's address.

## Addendum to Attachment A Summary of Recommendations

**From Addendum to Attachment B: Recommended for Approval**

Tab	App #	Applicant	Claimed	Certified	Difference*	% Allocable	Max Percent	Tax Credit	EQC Action
Water	7602	Oregon Metallurgical Corporation	\$ 262,626	\$ 225,319	(\$37,307)	100%	35%	\$78,862	
Water	7660	Stephen W. Houghtaling, DDS	\$ 1,081	\$ 1,081	\$0	100%	35%	\$378	
Water	7661	John J. Lee, DDS	\$ 2,775	\$ 2,775	\$0	100%	35%	\$971	
Water	7662	O'Neill S. Solanky	\$ 795	\$ 795	\$0	100%	35%	\$278	
Water	7663	Dr. Nadia Winstead, DMD	\$ 701	\$ 701	\$0	100%	35%	\$245	
<b>5 Applications</b>			<b>\$267,978</b>	<b>\$230,671</b>				<b>\$80,735</b>	
<i>TOTAL</i>									
93 Applications			<u>\$23,048,962</u>	<u>\$22,698,977</u>				<u>\$7,461,018</u>	

\* The difference is the facility cost on the application minus the facility cost DEQ recommends for certification. DEQ discussed the differences with the applicant and each applicant indicated agreement with the subtractions.

# Attachment E

## Tax Expenditure Liability Report

App #	Tax Credit	Placed in Operation	Remaining		2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
			UL	UL										
7379	\$ 171,150	2006	10	9	\$ 19,017	\$ 19,017	\$ 19,017	\$ 19,017	\$ 19,017	\$ 19,017	\$ 19,017	\$ 19,017	\$ 19,014	0
7394	44,613	2006	10	9	\$ 4,957	4,957	4,957	4,957	4,957	4,957	4,957	4,957	4,957	0
7417	18,744	2006	15	10	\$ 1,874	1,874	1,874	1,874	1,874	1,874	1,874	1,874	1,874	1,878
7419	263,075	2006	10	9	\$ 29,231	29,231	29,231	29,231	29,231	29,231	29,231	29,231	29,227	0
7420	15,149	2006	15	10	\$ 1,515	1,515	1,515	1,515	1,515	1,515	1,515	1,515	1,515	1,514
7422	12,712	2006	15	10	\$ 1,271	1,271	1,271	1,271	1,271	1,271	1,271	1,271	1,271	1,273
7423	15,740	2006	15	10	\$ 1,574	1,574	1,574	1,574	1,574	1,574	1,574	1,574	1,574	1,574
7424	13,337	2006	15	10	\$ 1,334	1,334	1,334	1,334	1,334	1,334	1,334	1,334	1,334	1,331
7425	6,654	2006	15	10	\$ 665	665	665	665	665	665	665	665	665	669
7426	8,546	2006	15	10	\$ 855	855	855	855	855	855	855	855	855	851
7427	8,546	2006	15	10	\$ 855	855	855	855	855	855	855	855	855	851
7433	5,836	2006	10	9	\$ 648	648	648	648	648	648	648	648	652	0
7443	147,551	2006	5	4	\$ 36,888	36,888	36,888	36,887	0	0	0	0	0	0
7451	34,324	2007	5	5	\$ 6,865	6,865	6,865	6,865	6,864	0	0	0	0	0
7454	104,912	2007	5	5	\$ 20,982	20,982	20,982	20,982	20,984	0	0	0	0	0
7476	15,976	2006	7	6	\$ 2,663	2,663	2,663	2,663	2,663	2,661	0	0	0	0
7478	221,699	2006	20	10	\$ 22,170	22,170	22,170	22,170	22,170	22,170	22,170	22,170	22,170	22,169
7493	357,915	2006	10	9	\$ 39,768	39,768	39,768	39,768	39,768	39,768	39,768	39,768	39,771	0
7494	219,947	2006	10	9	\$ 24,439	24,439	24,439	24,439	24,439	24,439	24,439	24,439	24,435	0
7495	248,841	2006	10	9	\$ 27,649	27,649	27,649	27,649	27,649	27,649	27,649	27,649	27,649	0
7496	63,539	2006	7	6	\$ 10,590	10,590	10,590	10,590	10,590	10,589	0	0	0	0
7497	20,244	2005	15	10	\$ 2,024	2,024	2,024	2,024	2,024	2,024	2,024	2,024	2,024	2,028
7500	2,474	2006	7	6	\$ 412	412	412	412	412	414	0	0	0	0
7501	4,123	2006	7	6	\$ 687	687	687	687	687	688	0	0	0	0
7503	5,425	2006	7	6	\$ 904	904	904	904	904	905	0	0	0	0
7507	584	2007	1	1	\$ 584	0	0	0	0	0	0	0	0	0
7513	3,545	2006	7	6	\$ 591	591	591	591	591	590	0	0	0	0
7514	5,315	2007	7	7	\$ 759	759	759	759	759	759	761	0	0	0
7515	3,798	2007	7	7	\$ 543	543	543	543	543	543	540	0	0	0
7516	2,896	2006	7	6	\$ 483	483	483	483	483	481	0	0	0	0

# Attachment E

## Tax Expenditure Liability Report

App #	Tax Credit	Placed in Operation	UL	Remaining UL	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
7517	2,896	2006	7	6	\$ 483	483	483	483	483	481	0	0	0	0
7518	1,033	2006	7	6	\$ 172	172	172	172	172	173	0	0	0	0
7519	5,760	2006	7	6	\$ 960	960	960	960	960	960	0	0	0	0
7520	847	2007	7	7	\$ 121	121	121	121	121	121	121	0	0	0
7521	1,064	2006	7	6	\$ 177	177	177	177	177	179	0	0	0	0
7522	2,479	2007	7	7	\$ 354	354	354	354	354	354	355	0	0	0
7523	365,738	2006	10	9	\$ 40,638	40,638	40,638	40,638	40,638	40,638	40,638	40,638	40,634	0
7524	130,360	2006	7	6	\$ 21,727	21,727	21,727	21,727	21,727	21,725	0	0	0	0
7525	163,812	2006	10	9	\$ 18,201	18,201	18,201	18,201	18,201	18,201	18,201	18,201	18,204	0
7526	1,838,045	2006	10	9	\$ 204,227	204,227	204,227	204,227	204,227	204,227	204,227	204,227	204,227	0
7527	830,576	2006	10	10	\$ 83,058	83,058	83,058	83,058	83,058	83,058	83,057	83,057	83,057	83,057
7532	185,529	2006	10	9	\$ 20,614	20,614	20,614	20,614	20,614	20,614	20,614	20,614	20,614	0
7533	5,653	2006	7	6	\$ 942	942	942	942	942	943	0	0	0	0
7535	57,967	2007	10	10	\$ 5,797	5,797	5,797	5,797	5,797	5,797	5,797	5,797	5,797	5,794
7536	3,569	2007	7	7	\$ 510	510	510	510	510	510	509	0	0	0
7537	22,003	2007	7	7	\$ 3,143	3,143	3,143	3,143	3,143	3,143	3,145	0	0	0
7543	2,275	2007	2	2	\$ 1,138	1,137	0	0	0	0	0	0	0	0
7544	9,771	2007	5	5	\$ 1,954	1,954	1,954	1,954	1,955	0	0	0	0	0
7545	7,591	2007	5	5	\$ 1,518	1,518	1,518	1,518	1,519	0	0	0	0	0
7546	6,794	2007	7	7	\$ 971	971	971	971	971	971	968	0	0	0
7547	46,375	2007	5	5	\$ 9,275	9,275	9,275	9,275	9,275	0	0	0	0	0
7552	23,470	2007	10	10	\$ 2,347	2,347	2,347	2,347	2,347	2,347	2,347	2,347	2,347	2,347
7554	753	2007	5	5	\$ 151	150	150	150	152	0	0	0	0	0
7555	842	2007	5	5	\$ 168	168	168	168	170	0	0	0	0	0
7558	15,155	2006	7	6	\$ 2,526	2,526	2,526	2,526	2,526	2,525	0	0	0	0
7560	455	2007	1	1	\$ 455	0	0	0	0	0	0	0	0	0
7564	13,820	2007	5	5	\$ 2,764	2,764	2,764	2,764	2,764	0	0	0	0	0
7565	15,296	2007	7	7	\$ 2,185	2,185	2,185	2,185	2,185	2,185	2,186	0	0	0
7566	622	2007	1	1	\$ 622	0	0	0	0	0	0	0	0	0
7567	2,107	2007	3	3	\$ 702	702	703	0	0	0	0	0	0	0
7568	46,201	2006	5	4	\$ 11,550	11,550	11,550	11,551	0	0	0	0	0	0
7571	28,241	2007	5	5	\$ 5,648	5,648	5,648	5,648	5,649	0	0	0	0	0

# Attachment E

## Tax Expenditure Liability Report

App #	Tax Credit	Placed in Operation	UL	Remaining UL	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
7572	28,241	2005	5	3	\$ 9,414	9,414	9,413	0	0	0	0	0	0	0
7574	17,798	2007	5	5	\$ 3,560	3,560	3,560	3,560	3,558	0	0	0	0	0
7575	61,461	2006	5	4	\$ 15,365	15,365	15,365	15,366	0	0	0	0	0	0
7583	45,710	2007	10	10	\$ 4,571	4,571	4,571	4,571	4,571	4,571	4,571	4,571	4,571	4,571
7585	26,818	2007	5	5	\$ 5,364	5,364	5,364	5,364	5,362	0	0	0	0	0
7587	30,694	2007	25	10	\$ 3,069	3,069	3,069	3,069	3,069	3,069	3,069	3,069	3,069	3,073
7592	9,238	2007	20	10	\$ 924	924	924	924	924	924	924	924	924	922
7593	60,544	2007	20	10	\$ 6,054	6,054	6,054	6,054	6,054	6,054	6,054	6,054	6,054	6,058
7597	4,200	2006	5	4	\$ 1,050	1,050	1,050	1,050	0	0	0	0	0	0
7601	16,974	200	20	1	\$ 16,974	0	0	0	0	0	0	0	0	0
7602	78,862	2006	10	9	\$ 8,763	8,763	8,763	8,763	8,762	8,762	8,762	8,762	8,762	0
7604	59,318	2007	5	5	\$ 11,864	11,864	11,864	11,864	11,862	0	0	0	0	0
7605	3,607	2007	7	7	\$ 515	515	515	515	515	515	517	0	0	0
7606	6,464	2007	7	7	\$ 923	923	923	923	923	923	926	0	0	0
7608	105,000	2007	5	5	\$ 21,000	21,000	21,000	21,000	21,000	0	0	0	0	0
7630	69,822	2007	10	10	\$ 6,982	6,982	6,982	6,982	6,982	6,982	6,982	6,982	6,983	6,983
7631	625	2007	1	1	\$ 625	0	0	0	0	0	0	0	0	0
7632	50,534	2007	5	5	\$ 10,107	10,107	10,107	10,107	10,106	0	0	0	0	0
7633	34,135	2007	8	8	\$ 4,267	4,267	4,267	4,267	4,267	4,267	4,267	4,266	0	0
7642	41,048	2006	7	6	\$ 6,841	6,841	6,841	6,841	6,841	6,843	0	0	0	0
7645	10,730	2007	7	7	\$ 1,533	1,533	1,533	1,533	1,533	1,533	1,532	0	0	0
7646	495,133	2007	10	10	\$ 49,513	49,513	49,513	49,513	49,513	49,513	49,513	49,513	49,513	49,516
7647	3,607	2007	7	7	\$ 515	515	515	515	515	515	517	0	0	0
7648	205,426	2007	5	5	\$ 41,085	41,085	41,085	41,085	41,086	0	0	0	0	0
7649	315,288	2007	5	5	\$ 63,058	63,058	63,058	63,058	63,056	0	0	0	0	0
7652	308	2007	1	1	\$ 308	0	0	0	0	0	0	0	0	0
7653	380	2007	1	1	\$ 380	0	0	0	0	0	0	0	0	0
7654	243	2007	1	1	\$ 243	0	0	0	0	0	0	0	0	0
7655	3,973	2007	5	5	\$ 795	795	795	795	793	0	0	0	0	0
7658	315	2007	1	1	\$ 315	0	0	0	0	0	0	0	0	0

# Attachment E

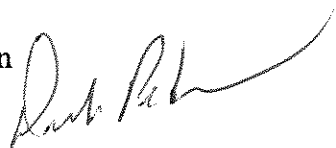
## Tax Expenditure Liability Report

App #	Tax Credit	Placed in Operation	UL	Remaining UL	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
7659	360	2007	1	1	\$ 360	0	0	0	0	0	0	0	0	0
7660	378	2007	1	1	378	0	0	0	0	0	0	0	0	0
7661	971	2007	1	1	971	0	0	0	0	0	0	0	0	0
7662	278	2007	1	1	278	0	0	0	0	0	0	0	0	0
7663	245	2006	1	1	245	0	0	0	0	0	0	0	0	0
Dec '07	7,673,039				1,012,126	989,389	988,255	978,143	913,289	707,136	656,986	644,911	640,644	202,507
June '07	2,065,205				328,872	328,419	298,036	170,478	156,614	131,510	128,840	128,837	63,873	63,873
WC '07-09	222,070				95,200	62,071	51,212	8,105	5,482	0	0	0	0	0
<b>Total</b>	<b>\$9,960,314</b>				<b>\$1,436,198</b>	<b>\$1,379,879</b>	<b>\$1,337,503</b>	<b>\$1,156,726</b>	<b>\$1,075,385</b>	<b>\$838,646</b>	<b>\$785,826</b>	<b>\$773,748</b>	<b>\$704,517</b>	<b>\$266,380</b>



State of Oregon  
Department of Environmental Quality

Memorandum

**Date:** November 30, 2007  
**To:** Environmental Quality Commission  
**From:** Dick Pedersen, Deputy Director   
**Subject:** Agenda Item G, Action Item: Pollution Control Tax Credit Considerations  
December 13-14, 2007 EQC Meeting

**Why This is Important** The Environmental Quality Commission (EQC, Commission) approves or denies the certification of a pollution control facility.

The Commission's postponement of any application from the December 13-14, 2007 EQC meeting could have an adverse impact on the taxpayer. The law permits taxpayers to begin reducing their tax liability beginning with the tax year that coincides with the year of Commission certification. All taxpayers represented in this report have a December 31 tax year-end.

**Background** The EQC certification entitles an Oregon taxpayer to subtract up to 35 percent of the facility's cost from its Oregon tax liability. The taxpayer may take the tax credit in equal parts over the remaining useful life of the facility, but for no more than 10 years.

The Pollution Control Facilities Tax Credit regulations direct the EQC to "certify a pollution control, solid waste, hazardous waste or used oil facility or portion thereof if the Commission finds that the facility qualifies as a pollution control facility." ORS 468.170 (4)(a).

**Department Recommendation** Attachment A summarizes the Department of Environmental Quality (DEQ, Department) recommendations regarding Pollution Control Facilities Tax Credit applications and certificates. The Department recommends that the EQC consider the following actions.

- Approve final certification of the facilities summarized in Attachment A and detailed in Attachment B.
- Approve equipment presented in Attachment C as wood chippers if the Commission concurs with Department analysis.
- Reinstate, revoke or transfer certificates presented in Attachment D.

Each attachment includes the background and regulatory authority for the recommended action.

**EQC Action  
Alternatives**

Action Alternatives for Attachment B

The Commission may postpone an application to a future meeting if the Commission:

- Requires additional information from the Department or applicant; or
- Makes a determination different from the Department that may have an adverse effect on the applicant.

The law permits facilities to begin reducing their tax liability beginning with the tax year that coincides with the year of Commission certification. All taxpayers represented in this report have a December 31 tax year-end.

If the Commission postpones any application from Attachment B, the Department requests the EQC schedule a telephone meeting to consider certification prior to January 1, 2008.

Action Alternatives for Attachment C

If the Commission does not concur with the Department's analysis that equipment presented in Attachment C function as wood chippers, the Commission must deny certification.

**Attachments**

- A. Summary of Recommendations
- B. Background and References for Final Certification
- C. Background and Reviews for Wood Chippers
- D. Certificate Administration
- E. Tax Expenditure Liability Report
- F. Certified Wood Chipper Report

**Available Upon  
Request**

ORS 468.150 to 468.190 and OAR 340-016-0005 to 340-016-0080

Approved:

Section:

*Maggie Vandehey / gka*

Division:

*Suzanne K. Aldrich*

Report Prepared By: Maggie Vandehey  
Phone: (503) 229-6878

# Attachment A

## Summary of Recommendations

From Attachment B: Recommended for Approval

Tab	App #	Applicant	Claimed	Certified	Difference*	% Allocable	Max Percent	Tax Credit	EQC Action
NPS	7379	McFarlane's Bark, Inc	\$ 662,050	\$ 489,000	\$ (173,050)	100%	35%	\$ 171,150	
Air	7394	TDY Industries, Inc.	\$ 127,467	\$ 127,467		100%	35%	\$ 44,613	
Air	7417	DLK, Inc	\$ 76,314	\$ 53,554	\$ (22,760)	100%	35%	\$ 18,744	
Air	7419	Roseburg Forest Products Company	\$ 756,614	\$ 751,644	\$ (4,970)	100%	35%	\$ 263,075	
Mat Rec	7420	Metro Metals Northwest, Inc	\$ 43,282	\$ 43,282		100%	35%	\$ 15,149	
Mat Rec	7422	Metro Metals Northwest, Inc	\$ 36,320	\$ 36,320		100%	35%	\$ 12,712	
Mat Rec	7423	Metro Metals Northwest, Inc	\$ 44,972	\$ 44,972		100%	35%	\$ 15,740	
Mat Rec	7424	Metro Metals Northwest, Inc	\$ 38,105	\$ 38,105		100%	35%	\$ 13,337	
Mat Rec	7425	Metro Metals Northwest, Inc	\$ 19,010	\$ 19,010		100%	35%	\$ 6,654	
Mat Rec	7426	Metro Metals Northwest, Inc	\$ 24,417	\$ 24,417		100%	35%	\$ 8,546	
Mat Rec	7427	Metro Metals Northwest, Inc	\$ 24,417	\$ 24,417		100%	35%	\$ 8,546	
Water	7433	TDY Industries, Inc	\$ 16,674	\$ 16,674		100%	35%	\$ 5,836	
Mat Rec	7443	Umpqua Bank Leasing	\$ 421,573	\$ 421,573		100%	35%	\$ 147,551	
Mat Rec	7451	Cottage Grove Garbage Service, Inc	\$ 98,069	\$ 98,069		100%	35%	\$ 34,324	
NPS	7476	Christensen Farms LLC	\$ 45,645	\$ 45,645		100%	35%	\$ 15,976	
Air	7478	Oregon Steel Mills, Inc.	\$ 711,397	\$ 633,426	\$ (77,971)	100%	35%	\$ 221,699	
Air	7493	Roseburg Forest Products Company	\$ 1,022,613	\$ 1,022,613		100%	35%	\$ 357,915	
Air	7494	Douglas County, Inc.	\$ 628,420	\$ 628,420		100%	35%	\$ 219,947	
Mat Rec	7495	Far West Fibers, Inc.	\$ 710,973	\$ 710,973		100%	35%	\$ 248,841	
Mat Rec	7496	American Rag & Metal, LLC	\$ 181,540	\$ 181,540		100%	35%	\$ 63,539	
Alt FB	7497	Lucas & Son, Inc.	\$ 57,841	\$ 57,841		100%	35%	\$ 20,244	
Mat Rec	7500	Waste Connections of Oregon, Inc.	\$ 7,068	\$ 7,068		100%	35%	\$ 2,474	
Mat Rec	7501	Waste Connections of Oregon, Inc.	\$ 11,780	\$ 11,780		100%	35%	\$ 4,123	
Alt FB	7503	Tydan Farms, Inc.	\$ 62,000	\$ 62,000		25%	35%	\$ 5,425	
HW	7507	Franklin Waterman	\$ 1,669	\$ 1,669		100%	35%	\$ 584	
Mat Rec	7513	Waste Connections of Oregon, Inc.	\$ 10,129	\$ 10,129		100%	35%	\$ 3,545	
Mat Rec	7514	Waste Connections of Oregon, Inc.	\$ 15,187	\$ 15,187		100%	35%	\$ 5,315	
Mat Rec	7515	Waste Connections of Oregon, Inc.	\$ 10,850	\$ 10,850		100%	35%	\$ 3,798	
Mat Rec	7516	Waste Connections of Oregon, Inc.	\$ 8,274	\$ 8,274		100%	35%	\$ 2,896	
Mat Rec	7517	Waste Connections of Oregon, Inc.	\$ 8,274	\$ 8,274		100%	35%	\$ 2,896	
Mat Rec	7518	Waste Connections of Oregon, Inc.	\$ 2,950	\$ 2,950		100%	35%	\$ 1,033	

## Attachment A

### Summary of Recommendations

From Attachment B: Recommended for Approval

Tab	App #	Applicant	Claimed	Certified	Difference*	% Allocable	Max Percent	Tax Credit	EQC Action
Mat Rec	7519	Waste Connections of Oregon, Inc.	\$ 16,457	\$ 16,457		100%	35%	\$ 5,760	
Mat Rec	7520	Waste Connections of Oregon, Inc.	\$ 2,420	\$ 2,420		100%	35%	\$ 847	
Mat Rec	7521	Waste Connections of Oregon, Inc.	\$ 3,041	\$ 3,041		100%	35%	\$ 1,064	
Mat Rec	7522	Waste Connections of Oregon, Inc.	\$ 7,082	\$ 7,082		100%	35%	\$ 2,479	
Air	7523	Roseburg Forest Products Company	\$ 1,044,966	\$ 1,044,966		100%	35%	\$ 365,738	
Mat Rec	7524	Waste Connections of Oregon, Inc.	\$ 372,458	\$ 372,458		100%	35%	\$ 130,360	
Air	7525	Roseburg Forest Products Co.	\$ 468,035	\$ 468,035		100%	35%	\$ 163,812	
Water	7526	Interfor Pacific, Inc.	\$ 5,251,558	\$ 5,251,558		100%	35%	\$ 1,838,045	
Air	7527	Intel Corporation and Subsidiaries	\$ 2,373,073	\$ 2,373,073		100%	35%	\$ 830,576	
Water	7532	Carlton Company	\$ 542,174	\$ 530,083	\$ (12,091)	100%	35%	\$ 185,529	
Mat Rec	7533	Global Leasing, Inc	\$ 16,151	\$ 16,151		100%	35%	\$ 5,653	
Alt FB	7535	Leroy & Lowell Kropf	\$ 169,000	\$ 169,000		98%	35%	\$ 57,967	
Mat Rec	7536	Global Leasing, Inc	\$ 10,197	\$ 10,197		100%	35%	\$ 3,569	
Mat Rec	7537	Global Leasing, Inc	\$ 178,052	\$ 157,167	\$ (20,885)	40%	35%	\$ 22,003	
Mat Rec	7543	Innovative Cereal Systems, LLC	\$ 6,500	\$ 6,500		100%	35%	\$ 2,275	
Mat Rec	7544	Newberg Garbage Service, Inc	\$ 27,918	\$ 27,918		100%	35%	\$ 9,771	
Mat Rec	7545	Newberg Garbage Service, Inc	\$ 21,688	\$ 21,688		100%	35%	\$ 7,591	
Mat Rec	7546	Global Leasing, Inc	\$ 19,411	\$ 19,411		100%	35%	\$ 6,794	
Mat Rec	7547	The Penguin Group, LLC	\$ 132,500	\$ 132,500		100%	35%	\$ 46,375	
Water	7552	Conrad Forest Products	\$ 67,056	\$ 67,056		100%	35%	\$ 23,470	
Mat Rec	7554	Kiser Enterprises, Inc.	\$ 2,150	\$ 2,150		100%	35%	\$ 753	
Mat Rec	7555	Kiser Enterprises, Inc.	\$ 2,407	\$ 2,407		100%	35%	\$ 842	
Mat Rec	7558	Sunset Refuse & Recycling	\$ 43,300	\$ 43,300		100%	35%	\$ 15,155	
HW	7560	William R Clemens	\$ 1,300	\$ 1,300		100%	35%	\$ 455	
HW	7564	Halton Company	\$ 39,487	\$ 39,487		100%	35%	\$ 13,820	
Mat Rec	7565	L & M K Enterprises, LLC	\$ 43,704	\$ 43,704		100%	35%	\$ 15,296	
HW	7566	Bandon Crossing, LLC	\$ 1,778	\$ 1,778		100%	35%	\$ 622	
Mat Rec	7568	Newberg Garbage Service, Inc	\$ 132,002	\$ 132,002		100%	35%	\$ 46,201	
Mat Rec	7571	Deschutes Transfer Company, Inc	\$ 80,688	\$ 80,688		100%	35%	\$ 28,241	
Mat Rec	7572	Deschutes Transfer Company, Inc	\$ 80,688	\$ 80,688		100%	35%	\$ 28,241	
Mat Rec	7574	Newberg Garbage Service, Inc	\$ 50,850	\$ 50,850		100%	35%	\$ 17,798	
Mat Rec	7575	Umpqua Bank Leasing	\$ 175,602	\$ 175,602		100%	35%	\$ 61,461	

## Attachment A

### Summary of Recommendations

From Attachment B: Recommended for Approval

Tab	App #	Applicant	Claimed	Certified	Difference*	% Allocable	Max Percent	Tax Credit	EQC Action
Alt FB	7583	Bashaw Land & Seed, Inc.	\$ 130,600	\$ 130,600		100%	35%	\$ 45,710	
Mat Rec	7585	Southern Oregon Sanitation	\$ 76,623	\$ 76,623		100%	35%	\$ 26,818	
Mat Rec	7587	Southern Oregon Sanitation	\$ 87,697	\$ 87,697		100%	35%	\$ 30,694	
Alt FB	7592	Tydan Farms, Inc	\$ 26,394	\$ 26,394		100%	35%	\$ 9,238	
Alt FB	7593	Eric and Vickie Bower	\$ 172,982	\$ 172,982		100%	35%	\$ 60,544	
Mat Rec	7597	High Country Enterprises, LLC	\$ 12,000	\$ 12,000		100%	35%	\$ 4,200	
Alt FB	7601	T & P Farms, LLC	\$ 174,578	\$ 174,578		28%	35%	\$ 16,974	
Mat Rec	7604	Bend Garbage Company, Inc	\$ 169,480	\$ 169,480		100%	35%	\$ 59,318	
Mat Rec	7605	Global Leasing, Inc	\$ 10,305	\$ 10,305		100%	35%	\$ 3,607	
Mat Rec	7606	Global Leasing, Inc	\$ 18,468	\$ 18,468		100%	35%	\$ 6,464	
Alt FB	7630	Matt Roth Farms LLC	\$ 199,492	\$ 199,492		100%	35%	\$ 69,822	
HW	7631	O. L. Contreras, DMD, PC	\$ 1,787	\$ 1,787		100%	35%	\$ 625	
Mat Rec	7632	High Country Enterprises, LLC	\$ 144,384	\$ 144,384		100%	35%	\$ 50,534	
Water	7633	Truax Corporation	\$ 98,480	\$ 97,529	\$ (951)	100%	35%	\$ 34,135	
Mat Rec	7642	Miller Associated Enterprises Inc	\$ 117,279	\$ 117,279		100%	35%	\$ 41,048	
Mat Rec	7645	L & M K Enterprises, LLC	\$ 30,656	\$ 30,656		100%	35%	\$ 10,730	
Water	7646	Tidewater Barge Lines Inc	\$ 2,526,189	\$ 2,526,189		56%	35%	\$ 495,133	
Mat Rec	7647	Global Leasing, Inc	\$ 10,305	\$ 10,305		100%	35%	\$ 3,607	
Mat Rec	7648	High Country Enterprises, LLC	\$ 586,932	\$ 586,932		100%	35%	\$ 205,426	
Mat Rec	7649	Bend Garbage Company, Inc	\$ 900,824	\$ 900,824		100%	35%	\$ 315,288	
Water	7652	Robert Darke, DDS	\$ 880	\$ 880		100%	35%	\$ 308	
Water	7653	Stacy A. Geisler, DDS, PhD, PC	\$ 1,087	\$ 1,087		100%	35%	\$ 380	
Water	7654	Michael C. Gerhards, DDS	\$ 695	\$ 695		100%	35%	\$ 243	
Mat Rec	7655	Deschutes Recycling, LLC	\$ 11,351	\$ 11,351		100%	35%	\$ 3,973	
Water	7658	Michael VanGordon	\$ 900	\$ 900		100%	35%	\$ 315	
Water	7659	Eugene K. Robins	\$ 1,029	\$ 1,029		100%	35%	\$ 360	
<b>89 Applications</b>			Sum	\$22,780,984	\$ 22,468,306			\$ 7,380,283	
			Average	\$ 255,966	\$ 252,453			\$ 82,925	
			Minimum	\$ 695	\$ 695			\$ 243	
			Maximum	\$ 5,251,558	\$ 5,251,558			\$ 1,838,045	

\* The difference is the facility cost on the application minus the facility cost DEQ recommends for certification. DEQ discussed the differences with the applicant and each applicant indicated agreement with the subtractions.

# Attachment A

## Summary of Recommendations

From Attachment C: Background & Reviews for Wood Chippers

Tab	App #	Applicant	Claimed	Certified	Difference*	% Allocable	Max Percent	Tax Credit	EQC Action
NPS	7454	Brink Bros, Inc	\$ 299,750	\$ 299,750	\$ -	100%	35%	\$ 104,913	
NPS	7567	Flavis E Johnson Jr	\$ 6,020	\$ 6,020	\$ -	100%	35%	\$ 2,107	
NPS	7608	ECO Clear Inc	\$ 300,000	\$ 300,000	\$ -	100%	35%	\$ 105,000	
<b>3 Applications</b>			Sum	\$ 605,770	\$ 605,770			\$ 212,020	
			Average	\$ 201,923	\$ 201,923			\$ 70,673	
			Minimum	\$ 6,020	\$ 6,020			\$ 2,107	
			Maximum	\$ 300,000	\$ 300,000			\$ 105,000	

# Attachment A

## Summary of Recommendations

**From Attachment D: Certificate Administration**

<u>Action</u>	<u>Cert. #</u>	<u>Change Certificate</u>
Reinstate	10867	T & P Farms, LLC The EQC revoked certificate number 10867 after a fire destroyed the certified facility. The farm constructed a new building.
Revoke	4527	Weyerhaeuser Company The company ceased operating the certified facility.
	10403	Weyerhaeuser Company
	10474	The company sold the certified facility.
	10495	"
	10673	"
	10495	Cottage Grove Garbage Service, Inc. The company removed truck/trailer from material recovery service.
Transfer	10176	<b>From 50% Fessler Family LLC, 25% Thomas Fessler, 25% Debra Fessler to Fessler Family LLC</b>
	4073	<b>From Pendleton Sanitary Service, Inc. to William C McHenry 29.49%, Susan E McHenry 25.49% and Michael R McHenry 49.02%</b>
	4588	"
	4589	"
	4590	"
	11291	"
	11292	"
	4025	<b>From G-P Resins Inc. to G-P Chemical Equity LLC</b>
	4072	<b>From Georgia-Pacific Corporation to G-P Toledo LLC</b>
	4094	"
	4095	"
	4791	"
	4792	"
	4793	"
	10361	<b>From G-P Resins Inc. to G-P Chemicals LLC</b>
	10674	"
	10794	<b>From Georgia-Pacific Corporation to G-P Chemicals LLC</b>

# Attachment B

## Background and References for Final Certifications

### Recommendation

The Department of Environmental Quality (DEQ, Department) recommends the Environmental Quality Commission (EQC, Commission) approve \$7,380,283 in tax credits to 89 pollution control and material recovery facilities summarized in Attachment A and detailed in this attachment.

To make its recommendation, the Department relied on the application records, the Pollution Control Facilities Tax Credit regulations, pertinent legal advice, and previous EQC decisions and directions.

### Organization of Application Reviews

The Department organized the application reviews by ascending application number under the following categories.

<u>Tax Credit Type</u>	<u>Tab</u>
1. Air Pollution Controls	<i>Air</i>
2. Alternatives to Open Field Burning	<i>Alt FB</i>
3. Hazardous Waste Pollution Controls	<i>HW</i>
4. Material Recovery	<i>Mat Rec</i>
5. Nonpoint Source Pollution Controls	<i>NPS</i>
6. Water Pollution Controls	<i>Water</i>

Each tab includes three sections:

1. Recommendation and Eligibility Criteria
2. Reviews
3. References



Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
December 13-14, 2007 EQC Meeting

Each tab includes the eligibility criteria and the decisions required for certifying a pollution control or material recovery facility and for determining the amount of the tax credit. Each review includes the Department's analysis regarding the:

- Facility's qualifications for certification as a pollution control facility,
- Eligible facility cost,
- Percentage of the tax credit attributed to pollution control, and
- Maximum allowable tax credit.

The Department will use the information in this attachment to:

- Notify the applicants of the EQC's certification,
- Develop the Pollution Control Facility Tax Credit Certificate,
- Develop the taxpayer's Department of Revenue form for claiming the credit on the Oregon Tax Return, and
- Develop reports for the Commission, agency management, the Department of Revenue, the Governor's Office, Legislators and other interested parties.

**Pollution Control Facility Certification Authority**

ORS 468.170(4)(a) provides the Commission its authority to certify pollution control facilities.

<b>Regulation</b>	<b>Department Interpretation</b>
468.170 <sup>1</sup> (4)(a) The commission shall certify a pollution control, solid waste, hazardous waste or used oil facility or portion thereof, for which an application has been made under ORS 468.165, if the commission finds that the facility:	The applicant filed a valid application.
(A) Was erected, constructed or installed in accordance with the requirements of ORS 468.165 (1);	The applicant constructed the claimed facility after effective date of authorizing legislation.
(B) Is designed for, and is being operated or will operate in accordance with the requirements of ORS 468.155; and	The claimed facility meets the definition of a pollution control facility.
(C) Is necessary to satisfy the intents and purposes of ORS 454.010 to 454.040, 454.205 to 454.255, 454.505 to 454.535, 454.605 to 454.755, ORS chapters 459, 459A, 466 and 467 and ORS chapters 468, 468A and 468B and rules thereunder.	The claimed facility is necessary to satisfy DEQ administered regulations.

<sup>1</sup> ORS 468.170 Action on application; rejection; appeal; issuance of certificate; certification.

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
December 13-14, 2007 EQC Meeting

ORS 468.170(1) provides the Commission its authority to certify the facility cost and the portion of the cost allocable to pollution control. ORS 468.170(10) provides authority to certify the applicable percentage (Maximum Allowable Percentage) of the certified cost of the facility eligible for tax credit.

<u>Regulation</u>	<u>Department Interpretation</u>
<p>468.170 (1) The Environmental Quality Commission shall act on an application for certification before the 120th day after the filing of the application under ORS 468.165. The action of the commission shall include certification of the actual cost of the facility and the portion of the actual cost properly allocable to the prevention, control or reduction of air, water or noise pollution or solid or hazardous waste or to recycling or appropriately disposing of used oil.</p>	<p>The certified facility cost represents the actual cost.</p> <p>The claimed items control pollution, solid or hazardous waste, or recycle.</p>
<p>The actual cost or portion of the actual cost certified may not exceed the taxpayer's own cash investment in the facility or portion of the facility. Each certificate shall bear a separate serial number for each such facility.</p>	<p>The cost represents the applicant's investment.</p>
<p>468.170 (10) If the construction or installation of a facility is commenced after December 31, 2005, the facility may be certified only if the facility or applicant is described in ORS 468.173 (3). A facility described in ORS 468.173 (2) for which construction or installation is commenced after December 31, 2005, may not be certified under this section.</p>	<p>The applicant, the facility or the location of the facility qualifies for a maximum allowable percentage above zero (0) percent.</p>

## Air Pollution Controls

### Recommendations and Eligibility Criteria

DEQ recommends the Commission approve \$ 2,486,119 in tax credits to **nine** applicants that claim air cleaning devices (facilities) that reduce air pollution. Each facility is eligible for a tax credit because it meets the criteria in:

- ORS 468.155 (1)(a) and OAR 340-016-0060 (2)(a) - The principal purpose of the facility is to reduce air pollution in response to a DEQ, federal EPA or a regional air pollution authority imposed condition or the sole purpose of the facility is to reduce a substantial quantity of air pollution.
- ORS 468.155 (1)(b)(B) – The facility accomplishes the prevention, control or reduction by disposal or elimination of air pollution, air contaminants or air contamination source and the use of an air cleaning device defined in ORS 468A.005.
- ORS.468.170 (4)(a) - The facility satisfies the intents and purposes of ORS chapter 468A - Air Pollution.
- ORS 468.155(3), ORS 468.170(1) and OAR 340-016-0070 - The facility cost recommended for certification represents the actual pollution control cost of the installation and does not exceed the taxpayer's (applicant) own cash investment in the facility.
- ORS 468.190 (3) for facilities that cost less than \$50,001, ORS 468.170(1) and ORS 468.190(1) for facilities that cost over \$50,000 - The applicant accurately determined and DEQ verified the percentage of the facility cost allocable to air pollution control.
- ORS 468.173(3)(h) - The maximum tax credit is 35 percent because the applicant submitted applications between January 1, 2002, and December 31, 2008, inclusively, and the certified cost would not exceed \$200,000, the applicant is certified under International Organization for Standardization standard ISO 14001, or the facility is located in an economically distressed area or an enterprize zone at the time of certification.

## Reviews

<b>7394</b>	Facility Cost		<b>\$127,467</b>
<b>TDY Industries, Inc.</b>	Percentage Allocable	X	<b>100%</b>
C Corp 952316679	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$44,613</b>

## Description

Two - Donaldson Torit Downflo Oval model 3-12 baghouses

TDY Industries, Inc. produces, refines and forms zirconium and other non-ferrous metals. The company forms slabs of non-ferrous metal. The process requires blasting the slabs to remove surface scale and oxide. Blasting creates particulate matter (PM) emissions.

The applicant replaced two bag-style baghouses installed in 1978. The claimed facility is two cartridge-style Donaldson Torit Downflo Oval model 3-12 baghouses to collect the spent inert blasting grit, metal oxide, metal particles and PM. The company refers to these as Fab Blaster #3 (ID B-320-BL03-001) and Fab Blaster #4 baghouses (ID B-320-BL04-001). Each baghouse has a self-cleaning controller, stand, blower and discharge valve. The rated efficiency is 99.99 percent on 1.0-micron dust particles.

The primary purpose of the two baghouses is to reduce approximately 26 tons per year of PM per year in compliance with Air Contaminant Discharge Permit number 22-0547.

The State of Oregon has issued 141 Pollution Control Facilities Tax Credit Certificates to the applicant and 133 to this location. The state did not certify the baghouses installed in 1978; therefore, the claimed facility is not a replacement. The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3).

**Applicant Address**  
PO Box 460  
Albany, OR 97321

**Facility Address**  
Tdy Industries Inc  
1600 Old Salem Rd  
Albany, OR 97321

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
 December 13-14, 2007 EQC Meeting

<b>7417</b> <b>DLK, Inc</b> S Corp 74-2917353	Facility Cost Percentage Allocable X Maximum Percentage X Tax Credit	\$53,554 100% 35% <hr/> \$18,744
---	---	---

**Description**

One - Dantherm model CS-2-M Dust Collection Unit, serial number 0-341-07-7011

DLK, Inc, doing business as The Closet Factory, designs and manufactures custom cabinetry. The cutting, boring and routing processes create dust.

The applicant installed ductwork from the tools through the building. The claimed facility starts at the exterior of the building and includes ductwork and connectors to the Dantherm dust collector. A 40 horse power Marathon motor operates a Combifab model 56500 fan creating 10,000 cubic feet per minute airflow. The 64 polyester tubular bag filters are 96.85 inches tall and 8 inches in diameter with an 8.70:1 air-to-cloth ratio. The filters capture the heated air and 99.9 percent of the dust to 0.3 microns and above. Reverse air flow cleans the filters.

Prior to installing the new system, the company used individual ineffective bag collectors at each tool. The sole and exclusive purpose of the dust collection system is to remove approximately 4.25 tons of particulate emissions per year from being vented to the atmosphere.

The applicant agreed with the Department's subtraction of \$22,760 for materials and installation cost of internal duct work, associated engineering and hole-coring. The State of Oregon has not issued any Pollution Control Facilities Tax Credit Certificates to the applicant or to this location. The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3).

**Applicant Address**  
 19824 SW Teton Ave  
 Tualatin, OR 97062

**Facility Address**  
 Same as applicant address

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
 December 13-14, 2007 EQC Meeting

<b>7419</b>	Facility Cost		<b>\$751,644</b>
<b>Roseburg Forest Products Company</b>	Percentage Allocable	X	<b>100%</b>
C Corp 93-1240670	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<u>\$263,075</u>

**Description**

One - New York Blower model 407RST-2006 booster fan, exterior ductwork and supports connecting new dryer to Boilers #2 and #6

Roseburg Forest Products Company, Dillard Plywood #1, is a plywood manufacturing facility. The company removes bark from whole logs then cuts and steams the wood. After steaming, the process cuts the logs into veneer which is dried, assembled and pressed into plywood. Further finishing of the rough cut plywood includes repairing face imperfections, sanding and cutting into final dimensions.

The applicant replaced a veneer dryer with a new Raute Wood LTD VTS6 4800 Jet Dryer. Drying green veneers produces particulate matter (PM) and volatile organic compounds (VOCs).

The company claims structural support towers and approximately 200 feet of 40- to 60-inch insulated steel ducts, with connectors, expansion joints, dampers and stiffeners. The applicant also claims a booster fan installed in the ductwork to move the emissions from the dryer to hogged fuel boilers.

The primary and most important purpose of the ductwork is to aid in the reduction of PM and VOCs in compliance with the applicant's Title V permit number 10-0025. The calculated capture efficiency achieved by routing PM and VOCs to the hogged fuel boilers for complete destruction is 99.9 percent with 0.1 percent of the emissions released as fugitives. This is a reduction of approximately 38.9 tons PM and 94.8 tons VOCs per year.

The applicant agreed with the \$4,970 subtraction from the claimed facility cost for a backup motor. The State of Oregon has issued 42 certificates to the applicant and 15 to this location. The claimed facility is not a replacement of these previously certified facilities. The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3). The maximum tax credit is 35 percent because the applicant submitted the application on February 20, 2007, and the facility is located within the Roberts Creek Enterprise Zone.

**Applicant Address**  
 PO Box 1088  
 Roseburg, OR 97470

**Facility Address**  
 10500 Old Hwy 99 South  
 Dillard, OR 97432

<b>7478</b> <b>Oregon Steel Mills, Inc.</b> C Corp 94-0506370	Facility Cost Percentage Allocable X Maximum Percentage X Tax Credit	\$633,426 100% 35% <hr style="width: 100%;"/> \$221,699
---	---	--

**Description**

One - Tellkamp Model 20 Regenerative Thermal Oxidizer, serial number 3661

Oregon Steel Mills, Inc. (OSM) manufactures steel plate, steel coil and American Petroleum Institute (API) certified large diameter steel pipe used in oil/gas transmission lines. The manufacturing process involves the conversion of imported steel slabs into plate steel or coiled plate.

OSM recently installed a finishing mill to manufacture large diameter line pipe using the coiled plate product. The pipe mill's two forming lines use spiral weld technology to form the large diameter pipe (LDP). The process applies wear-resistant materials to the inside and outside of the LDP according to customer specifications. The internal coating process generates hazardous air pollutants (HAPs) and volatile organic compounds (VOCs).

The applicant claims a used 20,000 SCFM (standard cubic feet per minute) Tellkamp model 20 Regenerative Thermal Oxidizer (RTO) and a 53' x 20' x 1' foundation.

The primary and most important purpose of the RTO is to control air pollution in compliance with the applicant's Title V operating permit number 26-1865. The RTO destroys air toxics through the process of high temperature thermal oxidation, converting VOCs to carbon dioxide (CO2) and water vapor (H2O). Based on control and destruction at 90 percent, OSM estimates the RTO destroys 172 tons of HAPs and VOCs per year.

The Department notified the applicant of the subtraction of \$77,971 for unrelated engineering consulting and Title V permit modifications.

The State of Oregon has issued nine Pollution Control Facilities Tax Credit Certificates to the applicant at this location. The claimed facility does not replace a previously certified facility. The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3). The maximum tax credit is 35 percent because the applicant submitted the application on April 30, 2007, and the facility is located within north/northeast Portland, a designated enterprise zone at the time of certification.

**Applicant Address**  
 1000 SW Broadway Ste 2200  
 Portland, OR 97205

**Facility Address**  
 14400 N Rivergate Boulevard



Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
 December 13-14, 2007 EQC Meeting

<b>7493</b>	Facility Cost		<b>\$1,022,613</b>
<b>Roseburg Forest Products Company</b>	Percentage Allocable	X	<b>100%</b>
C Corp 93-1240670	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$357,915</b>

**Description**

One PPC Industries Boiler Dry ESP, Model 11R-13128-3712S

Roseburg Forest Products Company, Coquille Plywood, is a plywood manufacturing facility. The company removes bark from whole logs then cuts and steams the wood. After steaming, the process cuts the logs into veneer which is dried, assembled and pressed into plywood. Further finishing of the rough cut plywood includes repairing face imperfections, sanding and cutting into final dimensions.

The company burns the hogged fuel and residual sander dust in a boiler to generate steam for the veneer dryers and presses. The claimed facility is a PPC Industries boiler dry electrostatic precipitator (ESP) installed on the hogged fuel boiler. The dry ESP controls particulate matter (PM) emissions produced in the boiler combustion process.

The primary and most important purpose of the ESP is to destroy 135 tons of particulate matter per year in compliance with the applicant's Title V permit number 06-0010 and meet the boiler Maximum Achievable Technology standards. Prior to installing the dry ESP, 40-year old multi-clones controlled the boiler particulate emissions. The dry ESP has a rated efficiency of 90 percent.

The State of Oregon has issued 42 certificates to the applicant and 3 to this location. The claimed facility is not a replacement of these previously certified facilities, specifically, the 40-year old multi-clones. The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3). The maximum tax credit is 35 percent because the facility is located in Coquille Valley Enterprise Zone.

**Applicant Address**

P. O. Box 1088  
 Roseburg, OR 97470

**Facility Address**

Cedar Point Road  
 Coquille, OR 97423

<b>7494</b> <b>Douglas County, Inc.</b> S Corp 93-0899201	Facility Cost Percentage Allocable X Maximum Percentage X Tax Credit	\$628,420 100% 35% \$219,947
---	---	---------------------------------------

**Description**

One - Wellons two-field modular electrostatic precipitator (ESP)

Douglas County, Inc., dba Douglas County Forest Products, owns and operates a sawmill in Roseburg, Oregon. The mill makes and sells dried 2 - by - 4 and 2 - by 6 products in 8, 9 and 10 foot lengths. The mill typically processes Douglas-fir, hemlock and White Fir logs.

The company generates electricity with a 6.25 million watts General Electric turbine operated by steam from a 100,000 PPH Wellons waste-fired boiler burning hogged fuel. The waste-fired boiler exhaust contains particulate matter (PM). The applicant claims a Wellons two-field modular electrostatic precipitator (ESP) that filters out 99.9 percent of PM emissions from the waste-fired boiler. With the boiler is running at full capacity, the ESP removes 16,783 tons of PM from the boiler exhaust each year. Without the use of the ESP, these air pollutants would release into the atmosphere.

The primary and most important purpose of the ESP is to control air pollution in compliance with the applicant's Air Contaminant Discharge Permit number 10-0012.

The applicant accurately subtracted the net present value of the Business Energy Tax Credit before claiming the eligible facility cost. The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3). The State of Oregon has not issued any Pollution Control Facilities Tax Credit Certificates to the applicant. The maximum tax credit is 35 percent because the facility is located within Douglas County, a distressed area at the time of certification.

**Applicant Address**  
 P O Box 848  
 Winchester, OR 97495

**Facility Address**  
 398 Del Rio Road  
 Winchester, OR 97495

<b>7523</b>	Facility Cost		<b>\$1,044,966</b>
<b>Roseburg Forest Products Company</b>	Percentage Allocable	X	<b>100%</b>
C Corp 93-1240670	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$365,738</b>

**Description**

One - PPC Industries Boiler Dry ESP, Model # 11R-1330-3712S

Roseburg Forest Products Company, Riddle Plywood # 4, is a plywood manufacturing facility. The company debarks whole logs then cuts and steams the wood. After steaming, the process cuts the logs into veneer which is dried, assembled and pressed into plywood. Further finishing of the rough cut plywood includes repairing face imperfections, sanding and cutting into final dimensions.

The company burns the hogged fuel and residual sander dust in two boilers to generate steam for the veneer dryers and presses. The claimed facility is a PPC Industries boiler dry electrostatic precipitator (ESP) installed on hogged fuel boiler # 1. The dry ESP controls particulate matter (PM) emissions produced in the boiler's combustion process. The ESP applies electrical charges to particles moving through the field. The charged particles move toward an oppositely charged collection surface, where they accumulate. At periodic intervals, the system raps the collection plates causing the particles to fall into the collection hopper.

The primary and most important purpose of the ESP is to destroy 55 tons of particulate matter per year in compliance with the applicant's Title V permit number 10-0078 and in order to meet the boiler Maximum Achievable Technology standards. Prior to installing the dry ESP, 30-year old multi-clones controlled the boiler particulate emissions. The dry ESP has a rated efficiency of 90 percent.

The State of Oregon has issued 42 certificates to the applicant and 3 to this location. The claimed facility is not a replacement of these previously certified facilities, specifically, the 40-year old multi-clones. The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3). The maximum tax credit is 35 percent because the facility is located within south Douglas County, a designated enterprise zone at the time of certification.

**Applicant Address**  
 PO Box 1088  
 Roseburg, OR 97470

**Facility Address**  
 3064 Riddle By-Pass Road  
 Riddle, OR 97469

<b>7525</b>	Facility Cost		<b>\$468,035</b>
<b>Roseburg Forest Products Company</b>	Percentage Allocable	X	<b>100%</b>
C Corp 93-1240670	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$163,812</b>

**Description**

One - New York Blower model 407RST-2006 booster fan, exterior ductwork and supports connecting new dryer to Boiler #1

Roseburg Forest Products Company, Riddle Plywood # 4, is a plywood manufacturing facility. The company debarks whole logs then cuts and steams the wood. After steaming, the process cuts the logs into veneer which is dried, assembled and pressed into plywood. Further finishing of the rough cut plywood includes repairing face imperfections, sanding and cutting into final dimensions.

The applicant replaced a veneer dryer in Plywood Plant # 4 with a new Raute Wood LTD VTS6 4800 Jet Dryer. Drying green veneers produces particulate matter (PM) and volatile organic compounds (VOCs).

The company claims structural support towers and approximately 320 feet of 30- to 40-inch insulated steel ducts, with connectors, expansion joints, dampers and stiffeners. The applicant also claims a booster fan installed in the ductwork to move the emissions from the dryer to hogged fuel boiler #1.

The primary and most important purpose of the ductwork is to aid in the reduction of PM and VOCs in compliance with the applicant's Title V permit number 10-0078. The calculated capture efficiency achieved by routing PM and VOCs to the hogged fuel boilers for destruction is 99.9 percent with 0.1 percent of the emissions released as fugitives. This is a reduction of approximately 9.1 tons PM and 19.7 tons VOCs per year.

The State of Oregon has issued 42 certificates to the applicant and 3 to this location. The claimed facility is not a replacement of these previously certified facilities, specifically, the 40-year old multi-clones. The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3). The maximum tax credit is 35 percent because the facility is located within south Douglas County, a designated enterprise zone at the time of certification.

**Applicant Address**  
 PO Box 1088  
 Roseburg, OR 97470

**Facility Address**  
 3064 Riddle By-Pass Road  
 Riddle, OR 97469

<b>7527</b> <b>Intel Corporation and Subsidiaries</b> C Corp 94-1672743	Facility Cost Percentage Allocable X Maximum Percentage X Tax Credit	\$2,373,073 100% 35% <hr style="width: 100%;"/> \$830,576
---	---	--

**Description**

One - Cascade Air/Harrington Plastics 50,000 cfm corrosive exhaust scrubber, tag # SC-133-5-100

The Intel, Ronler Acres D1D, researches semiconductor processes and manufactures semiconductor products on silicon wafers. The applicant uses various chemical and mechanical processes to develop semiconductor features. The semiconductor manufacturing process uses a number of corrosive liquids and gases that generate corrosive vapors.

Intel claims a new scrubber system installed to coincide with expanded factory operations at D1D. In the scrubber, air contaminants transfer from the exhaust to a liquid phase maintained within the scrubber. The captured contaminants are neutralized to form an inert salt.

The system includes a 50,000 cubic feet per minute (cfm) vertical corrosive exhaust scrubber, a 50,000 cfm/125 hp (horsepower) fan, fan inverters, bearings and two 50 hp recirculation pumps. In addition, there are numerous ancillary devices such as electrical panels, valves, drives, mechanical piping, exhaust ductwork and support structures.

The system exhausts to the atmosphere through the claimed 89 feet exhaust stack. Wastewater from the scrubber routes to the D1D acid waste neutralization facility (not claimed).

The primary and most important purpose of the scrubber is to control hazardous air pollutants (HAPs) in compliance with the applicant's DEQ Air Contaminant Discharge permit number 34-2809. The scrubber, an air-cleaning device, reduces the hydrogen chloride (HCl), chlorine (Cl) and hydrofluoric acid/hydrogen fluoride waste.

The applicant accurately excluded costs for internal tool connection to the scrubber exhaust and repairs to existing fans used in the project. Additionally, the applicant excluded Intel employee project expense from indirect costs. The State of Oregon has issued 13 certificates to the applicant and 9 to the Hillsboro location. The claimed facility is not a replacement of these previously certified facilities. The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3). The applicant qualifies for the 35 percent maximum tax credit by using an environmental management system developed to standards established by the International Organization for Standardization ISO 14001.

**Applicant Address**  
 2200 Mission College Drive, SC4-26  
 Santa Clara, CA 95052

**Facility Address**  
 2501 NW 229th Avenue  
 Hillsboro, OR 97124

Attachment B:

Background and References for Final Certifications  
 Air Pollution Controls  
 Page 10

## References

### ORS 468.155<sup>2</sup>

(1)(a) As used in ORS 468.155 to 468.190 and 468.962, unless the context requires otherwise, "pollution control facility" or "facility" means any land, structure, building, installation, excavation, machinery, equipment or device, or any addition to, reconstruction of or improvement of, land or an existing structure, building, installation, excavation, machinery, equipment or device reasonably used, erected, constructed or installed by any person if:

(A) The principal purpose of such use, erection, construction or installation is to comply with a requirement imposed by the Department of Environmental Quality, the federal Environmental Protection Agency or regional air pollution authority to prevent, control or reduce air...pollution...; or

(B) The sole purpose of such use, erection, construction or installation is to prevent, control or reduce a substantial quantity of air...pollution...

(1)(b) Such prevention, control or reduction required by this subsection shall be accomplished by:...(B) The disposal or elimination of or redesign to eliminate air contaminants or air pollution or air contamination sources and the use of air cleaning devices as defined in ORS 468A.005;...

ORS 468A.005 provides the following definitions.

Air contamination is dust, fume, gas, mist, odor, smoke, vapor, pollen, soot, carbon, acid or particulate matter or any combination thereof.

Air pollution is the presence in the outdoor atmosphere of one or more air contaminants, or any combination thereof, in sufficient quantities and of such characteristics and of a duration as are or are likely to be injurious to public welfare, to the health of human, plant or animal life or to property or to interfere unreasonably with enjoyment of life and property throughout such areas of the state as shall be affected thereby.

Air contamination source is any source at, from, or by reason of which there is emitted into the atmosphere any air contaminant, regardless of who the person may be who owns or operates the building, premises or other property in, at or on which such source is located, or the facility, equipment or other property by which the emission is caused or from which the emission comes.

---

<sup>2</sup> Definitions for ORS 468.155 to 468.190 and 468.962

An air cleaning device is any method, process or equipment that removes, reduces or renders less noxious air contaminants prior to their discharge in the atmosphere.

**OAR 340-016-0060<sup>3</sup>**

- (4) Eligible Activities. The facility shall prevent, reduce, control, or eliminate:...(a) Air contamination by use of air cleaning devices as defined in ORS 468A.005 or through equipment designed to prevent, reduce or eliminate air contaminants prior to discharge to the outdoor atmosphere;...

---

<sup>3</sup> Eligibility

## Alternatives to Open Field Burning

### Recommendations and Eligibility Criteria

DEQ recommends the Commission approve \$285,924 in tax credits to **eight** grass-seed growers who invested in equipment and drainage tile (facility) as an alternative to burning their grass seed acreage. Each facility is eligible for a tax credit because it meets the criteria in:

- ☑ ORS 468.155 (1)(a)(A) and OAR 340-016-0060 (2)(a) - The principal purpose of each facility is to reduce the maximum acreage to be open burned in compliance with OAR 340-266-0060 - Acreage Limitations, Allocations.
- ☑ ORS 468.150 and OAR 340-016-0060 (4)(b) – Each grower invested in an eligible method for reducing the number of grass seed acres requiring open field burning. Three growers purchased equipment, three growers installed drainage tile and two built straw storage buildings.
- ☑ ORS.468.170 (4)(a) - Each facility satisfies the intents and purposes of ORS chapter 468A - Air Pollution.
- ☑ ORS 468.155(3), ORS 468.170(1) and OAR 340-016-0070 - The facility cost recommended for certification represents the actual pollution control cost of the installation and does not exceed the taxpayer's (applicant) own cash investment in the facility.
- ☑ ORS 468.190 (3) for facilities that cost less than \$50,001, ORS 468.170(1) and ORS 468.190(1) for facilities that cost over \$50,000 - Each applicant accurately determined and DEQ verified the percentage of the facility cost allocable to air pollution control.
- ☑ ORS 468.173(3)(f) - The maximum tax credit is 35 percent because the applicants submitted their applications between January 1, 2002, and December 31, 2008, inclusively, and the certified facility cost does not exceed \$200,000 or the facility is located in an economically distressed area.



## Reviews

7497	Facility Cost		\$57,841
Lucas & Son, Inc.	Percentage Allocable	X	100%
S Corp 93-0646258	Maximum Percentage	X	35%
	Tax Credit		<u>\$20,244</u>

## Description

Drainage tile installation:

57,975'	4" drainage tile
1,241'	6" drainage tile
385"	8" drainage tile
1,000	10" drainage tile
340'	12" drainage tile

Lucas & Sons, Inc. owns 191 acres and leases 219 acres. The farm cultivates 91 acres in perennial grass seed and raises cane berries and hazelnuts. In the last three years, the farm has not open burned any acres.

The applicant claims drainage tile installed on 56.4 acres located in portion Section 33 of Township 5 South, Range 02 West in Marion County. The installation allows the applicant to plant an alternative crop and phase out grass seed production over the next three years as the farm plants berries on the tiled acres.

Lois Schweinfurth owns the tiled acreage leased to the applicant. Both parties signed an affidavit stating the property owner has not and will not compensate the applicant for the tile installation.

The EQC has not issued any certificates to Lucas & Sons, Inc. or its principals. The drainage tile is not a replacement of a previously certified facility. The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3).

**Applicant Address**  
13761 River Road NE  
Gervais, OR 97026

**Facility Address**  
5521 Concomly Road NE  
Gervais, OR 97026

<b>7503</b>	Facility Cost		<b>\$62,000</b>
<b>Tydan Farms, Inc.</b>	Percentage Allocable	X	<b>25%</b>
C Corp 93-1246351	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$5,425</b>

**Description**

One - John Deere 8110 Tractor, Serial # RW811OPO14713

Tydan Farms owns 53 acres and leases 1,045 acres. The farm cultivates 85 acres in perennial grass seed and 875 acres in annual grass seed. The acreage is located about one and one-half miles east of Interstate 5 on Priceboro Drive in Township 15S, Range 3W. In the last three years, the farm has open burned an average of 355 acres per year. With the certification of the claimed tractor and disc, the farm has sufficient tractor power and implements to sanitize 1,550 acres for growing grass seed.

The farm claims a tractor as an alternative to open field burning. The applicant accurately reduced the percentage of the cost allocable to pollution control to 25 percent based on the University of Oregon table for tractor/implement hours.

The EQC has issued one certificate to the farm for a tractor used on 440 acres of the farms grass-seed acreage. The claimed tractor is not a replacement of a previously certified facility. The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3).

**Applicant Address**  
21929 Powerline Road  
Harrisburg, OR 97446

**Facility Address**  
Same as applicant address

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
December 13-14, 2007 EQC Meeting

<b>7535</b>	Facility Cost		<b>\$169,000</b>
<b>Leroy &amp; Lowell Kropf</b>	Percentage Allocable	X	<b>98%</b>
Partnership 93-01812235	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$57,967</b>

**Description**

One - Used Case model IH STX 450-horsepower tractor, Vehicle Identification Number number JEE0100466

Leroy and Lowell Kropf are grass seed farmers that own 60 acres and lease 1,090 acres with 880 acres cultivated in perennial grass-seed and 270 acres cultivated in annual grass seed.

The farm burned an average of 84 acres per year over the last three years.

The co-applicants claim a used truck on grass seed acres identified as Township 14SO Range 4W: Section 13, lots 00200 and 00400; Section 23 lot, 00500; Section 24, lot 00100; Section 26, lots 00903 and 00905; Section 34, lots 00500, 00502 and 00501; Section 35, lots 00100, 00400 and 001700; and Section 36, lot 00700; and Township 15SO Range 4W; Section 23, lot 00500.

The EQC has issued nine certificates to the co-applicants, two for tractors. The claimed tractor is not a replacement. The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3).

**Applicant Address**  
24305 Powerline Road  
Harrisburg, OR 97446

**Facility Address**  
Same as applicant address

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
 December 13-14, 2007 EQC Meeting

<b>7583</b> <b>Bashaw Land &amp; Seed, Inc.</b> C Corp 93-1208082	Facility Cost Percentage Allocable X Maximum Percentage X Tax Credit	\$130,600 <b>100%</b> <b>35%</b> <hr/> \$45,710
---	---	--

**Description**

One - Case IH model STX425 Quad Tractor, serial # JEE0100887  
 One - 28' x 30" Flat Roller

Bashaw Land & Seed, Inc. owns 530 acres and leases 3,300 acres. The farm cultivates 1,300 acres in perennial grass seed and 2,530 acres in annual grass seed. The acreage is located in Township 19, Range 3 West, Section 2 and identified as tax lot 19-03-02-00-00201. In the last three years, the farm has open burned an average of 1,300 acres per year.

The farm claims a tractor and a roller as an alternative to open field burning.

The EQC has issued one certificate to Bashaw Land & Seed, Inc. and one to Eric and Vicki Bowers, the principals of Bashaw Land & Seed, Inc. The tractor works 500 acres of the farm's grass-seed acreage. The claimed tractor is not a replacement of a previously certified facility. The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3).

**Applicant Address**  
 31950 Bowers Drive  
 Harrisbug, OR 97446

**Facility Address**  
 Same as applicant address

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
 December 13-14, 2007 EQC Meeting

<b>7592</b> <b>Tydan Farms, Inc</b> C Corp 93-1246351	Facility Cost Percentage Allocable X Maximum Percentage X Tax Credit	\$26,394 100% 35% \$9,238
---	---	------------------------------------

**Description**

Drainage tile installation:

- 27,550' 4" drainage tile
- 1,000' 6" drainage tile
- 840' 8" drainage tile
- 20' 6" pipe
- 10' 8" pipe
- 10' 6" pipe

Tydan Farms, Inc. owns 53 acres and leases 1,045 acres. The farm cultivates 85 acres in perennial grass seed and 875 acres in annual grass seed. In the last three years, the farm has open burned an average of 355 acres per year.

The applicant claims drainage tile installed on 20 acres owned by Nick and Donna Bowers. The Bowers have not and will not compensate Tydan Farms for the tile installation. The acreage is identified as Township 15 South, Range 04 West, Section 25, Tax Lot 00502 in Linn County. The installation allows the applicant to plant a rotational crop to promote healthier grass seed cultivation aiding in diseases and weed control.

The EQC has issued one certificate to Tydan Farms, Inc. The drainage tile is not a replacement of a previously certified facility. The applicant provided an affidavit stating the owners of the acreage did not and will not provide any payment or compensation for installing the tile such as a lease payment reduction.

**Applicant Address**  
 21929 Powerline Road  
 Harrisburg, OR 97446

**Facility Address**  
 SE Corner of Dale Drive & Powerline

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
 December 13-14, 2007 EQC Meeting

<b>7593</b> <b>Eric and Vickie Bower</b> Individual	Facility Cost Percentage Allocable X Maximum Percentage X Tax Credit	\$172,982 <b>100%</b> <b>35%</b> ----- \$60,544
---	---	---

**Description**

Drainage tile installation:

- 213,650' 4" drainage tile
- 310' 6" drainage tile
- 860' 8" drainage tile
- 2,100' 10" drainage tile
- 1,750' 12" drainage tile
- 20' 12" pipe
- 20' 15" pipe
- 20' 36" pipe

Eric and Vicki Bowers own 530 acres and lease 3,300 acres. The co-applicants cultivate 1,300 acres in perennial grass seed and 2,530 acres in annual grass seed. In the last three years, the farm has open burned an average of 1,300 acres per year.

The co-applicants claim drainage tile on 198 acres identified as Tax Lot 103 in Linn County, Township 15 South, Range 04 West, Section 14. They installed the drainage tile on acres they own. The installation allows the co-applicants to plant a rotational crop to promote healthier grass seed cultivation, aiding in diseases and weed control.

The EQC has issued one certificate to Eric and Vicki Bowers and one to Bashaw Land & Seed, Inc., of which the Bowers are the principals. The drainage tile is not a replacement of a previously certified facility. The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3).

**Applicant Address**  
 31950 Bowers Drive  
 Harrisburg, OR 97446

**Facility Address**  
 NW corner of Powerline and Priceboro Rd

<b>7601</b> <b>T &amp; P Farms, LLC</b> LLC 93-6084519	Facility Cost Percentage Allocable X Maximum Percentage X Tax Credit	\$174,578 28% 35% \$16,974
--	---	-------------------------------------

**Description**

One - 75-feet by 150-feet by 33-feet steel clear-span building

T & P Farms, LLC is a grass seed grower in Marion County. The applicant owns 275 acres cultivating 250 acres in ryegrass and tall fescue. The applicant claims a 75' x 150' x 33' steel clear-span building with gravel floor to provide dry storage of baled straw. The storage capacity of the building is 900 tons of straw.

The principal purpose of the facility is to reduce the maximum acreage to be open field burned; thereby, reducing air pollution.

Paid invoices document the \$174,578 cost of the building. The percentage of the facility cost allocable to pollution control is 28 percent. The applicant accurately subtracted 55 percent of the new building cost to represent the 500 tons of straw stored in a replaced building that the EQC had certified. Additionally, the applicant accurately subtracted 17 percent for the building's excess capacity (150 tons). The State of Oregon has issued three Pollution Control Facilities Tax Credit Certificates to the applicant at this location. The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3).

The claimed facility replaces a certified 50' x 150' x 22' steel building destroyed by an April 2007 fire before the end of its useful life. The applicant notified the Department the building was no longer being used for its pollution control purpose, and the EQC revoked certificate number 10867 on June 22, 2007. According to ORS 468.155(3), the applicant is eligible for the remaining tax credit for the original building that has a 500-ton capacity. The reinstatement of the certificate can be found in Attachment D.

**Applicant Address**  
 PO Box 9068  
 Brooks, OR 97305

**Facility Address**  
 Same as applicant address

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
 December 13-14, 2007 EQC Meeting

<b>7630</b>	Facility Cost		<b>\$199,492</b>
<b>Matt Roth Farms LLC</b>	Percentage Allocable	X	<b>100%</b>
LLC 20-8443928	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$69,822</b>

**Description**

One – 124-feet long by 80-feet wide by 22-feet tall all steel, clear span straw storage building with a 124-feet by 40-feet lean-to

Matt Roth Farms, LLC owns 455 acres and leases 793 acres. The farm cultivates 1,248 acres in perennial grass seed. The acreage is identified as Township 7 South, Range 1 West, Section 6 and Township 7 South, Range 2 West, Sections 1C, 3, 12, 13, 16, 23, 23A, 33D, 34B and 110.

In the last three years, the farm has not open burned any acreage.

The farm claims a grass seed straw storage building capable of storing 2,000 tons (800 acres) of straw as an alternative to open field burning.

The EQC has not issued any certificates to the applicant. The claimed building is not a replacement of a previously certified facility. The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3).

**Applicant Address**  
 4551 Howell Prairie Road NE  
 Silverton, OR 97381

**Facility Address**  
 2122 Howell Prairie Road NE  
 Salem, OR 97305



## References

### ORS 468.150<sup>4</sup>

After alternative methods for field sanitation and straw utilization and disposal are approved by the Department of Environmental Quality, "pollution control facility," as defined in ORS 468.155, shall include such approved alternative methods and persons purchasing and utilizing such methods shall be eligible for the benefits allowed by ORS 468.155 to 468.190 and 468.962. [1975 c.559 §15; 1999 c.59 §136]

Note: 468.150 was enacted into law by the Legislative Assembly but was not added to or made a part of ORS chapter 468 or any series therein by legislative action. See Preface to Oregon Revised Statutes for further explanation.

### OAR 340-016-0060<sup>5</sup>

- (4) Eligible Activities... (b) Alternatives to Open Field Burning. The facility shall reduce or eliminate:
- (A) Open field burning and may include equipment, facilities, and land for gathering, densifying, handling, storing, transporting and incorporating grass straw or straw based products;
  - (B) Air quality impacts from open field burning and may include propane burners or mobile field sanitizers; or
  - (C) Grass seed acreage that requires open field burning. The facility may include:
    - (i) Production of alternative crops that do not require open field burning;
    - (ii) Production of rotation crops that support grass seed production without open field burning; or
    - (iii) Drainage tile installations and new crop processing facilities.

---

<sup>4</sup> Field sanitation, and straw utilization and disposal methods as "pollution control facilities"

<sup>5</sup> Eligibility

## Hazardous Waste Controls

### Recommendations and Eligibility Criteria

DEQ recommends the Commission approve a **\$15,482** tax credit to **four** applicants claiming parts washers that changed from using solvents to water-based cleaning products. Each facility is eligible for a tax credit because it meets the criteria in:

- ☑ ORS 468.155 (1)(a)(B) and OAR 340-016-0060 (2)(a) – The sole purpose of changing from a solvent- to water-based parts washer is to reduce a substantial quantity of hazardous waste.
- ☑ ORS 468.155 (1)(b)(E) – The aqueous parts washer eliminates the use of hazardous waste and its hazardous waste stream.
- ☑ ORS.468.170 (4)(a) - The facility satisfies the intents and purposes of ORS chapter 466 - Hazardous Waste and Hazardous Materials.
- ☑ ORS 468.155(3), ORS 468.170(1) and OAR 340-016-0070 - The facility cost recommended for certification represents the actual pollution control cost of the installation and does not exceed the taxpayer's (applicant) own cash investment in the facility.
- ☑ ORS 468.190 (3) for facilities that cost less than \$50,001 – The applicant accurately determined and DEQ verified the percentage of the facility cost allocable to hazardous waste pollution control.
- ☑ ORS 468.173(3)(f) - The maximum tax credit is 35 percent because the applicant submitted the application between January 1, 2002, and December 31, 2008, inclusively, and the certified facility cost does not exceed \$200,000.

## Reviews

<b>7507</b>	Facility Cost		<b>\$1,669</b>
<b>Franklin Waterman</b>	Percentage Allocable	X	<b>100%</b>
S Corp 80-0021442	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$ 584</b>

## Description

One – Renegade Solvent Free Parts Washer, Model TMB4000, serial number TMB6590

Franklin Waterman Automotive Repair, located in Coos County.

The applicant claims a Renegade Solvent Free Parts Washer that uses water and a special non-polluting detergent rather than solvents to clean auto parts. The system traps oil in absorbent pads and uses 50-micron cartridge filtration to remove particles from the wash water.

The sole purpose of the parts washer is to reduce the shops use of solvents containing Toluene and Benzene. Toluene is known to cause birth defects or other reproductive harm. Benzene is known to cause cancer. The aqueous parts washer has reduced the applicant's hazardous waste stream by 50 to 80 percent.

The Environmental Quality Commission has not issued any certificates to the applicant or to this location; the parts washer does not replace a previously certified washer.

**Applicant Address**  
P O Box 799  
Bandon, OR 97411

**Facility Address**  
Same as applicant address

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
December 13-14, 2007 EQC Meeting

<b>7560</b>	Facility Cost		<b>\$1,300</b>
<b>William R Clemens</b>	Percentage Allocable	X	<b>100%</b>
S Corp 91-1823853	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$ 455</b>

**Description**

One - Smart Washer model SW-23

William R. Clemens operates an automotive repair business.

The applicant claims a Parts and brake washer that uses water and a special non-polluting detergent rather than solvents to clean auto parts. The system traps oil in absorbent pads and uses 50-micron cartridge filtration to remove particles from the wash water.

The sole purpose of the parts washer is to reduce the shops use of solvents containing Toluene and Benzene. Toluene is known to cause birth defects or other reproductive harm. Benzene is known to cause cancer. The aqueous parts washer has reduced the applicant's hazardous waste stream by 50 to 80 percent.

The Environmental Quality Commission has not issued any certificates to the applicant or to this location; the parts washer does not replace a previously certified washer.

**Applicant Address**  
3401 N Lombard Street  
Portland, OR 97217

**Facility Address**  
Same as applicant address

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
 December 13-14, 2007 EQC Meeting

<b>7564</b> <b>Halton Company</b> C Corp 93-0454453	Facility Cost Percentage Allocable    X Maximum Percentage    X Tax Credit	\$39,487 100% 35% <hr style="width: 100%;"/> \$13,820
---	---	--

**Description**

- One - Cuda model H20-2518 aqueous parts washer, serial number CO407-64417
- One - Hotsy model 7873 aqueous parts washer, serial number C0207-64019
- One - 9'2" X 13' secondary containment pan made of 3/16" steel plate with 4" sides

The applicant operates a truck repair shop and recently moved to a larger area to increase the number of service bays from nine to twenty-three. To handle the increase in cleaning capabilities, the company purchased two non-solvent parts washers.

The applicant claims two parts washers. The first is a Cuda washer that has a 25-inch turntable and handles parts that are less than 18-inches tall for small engine components and nuts and bolts. The second is a Hotsy washer that has a 48 inch turntable and washes parts up to 60-inches tall, typically used to clean engine blocks or cylinder heads. The larger washer sits on a metal pan to contain any spillage.

The sole purpose of the claimed facility is to reduce the use of solvents containing Toluene and Benzene. Toluene is known to cause birth defects or other reproductive harm. Benzene is known to cause cancer. The new parts washer reduces the company's hazardous waste stream by 50 to 80 percent.

The state has issued six certificates to the applicant. The claimed facility is not a replacement of the previously certified facilities.

**Applicant Address**  
 PO Box 3377  
 Portland, OR 97208

**Facility Address**  
 Same as applicant address

<b>7566</b>	Facility Cost		<b>\$1,778</b>
<b>Bandon Crossing, LLC</b>	Percentage Allocable	X	<b>100%</b>
LLC 56-2570074	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$ 622</b>

**Description**

One - Renegade Parts Washer, model TMB4000, serial number 6378

Bandon Crossings, LLC is a new golf course operating in Coos County. The applicant's maintenance shop cleans parts while repairing golf carts and course equipment.

The applicant claims a Renegade Solvent Free Parts Washer that uses water and a special non-polluting detergent rather than solvents to clean parts. The system traps oil in absorbent pads and uses 50-micron cartridge filtration to remove particles from the wash water.

The sole purpose of the claimed facility is to avoid using solvents containing Toluene and Benzene. Toluene is known to cause birth defects or other reproductive harm. Benzene is known to cause cancer.

The Environmental Quality Commission has not issued any certificates to the applicant or to this location; the parts washer does not replace a previously certified washer.

**Applicant Address**  
87530 Dew Valley Lane  
Bandon, OR 97411

**Facility Address**  
Same as applicant address

## References

### ORS 468.155<sup>6</sup>

(1)(a) As used in ORS 468.155 to 468.190 and 468.962, unless the context requires otherwise, "pollution control facility" or "facility" means any land, structure, building, installation, excavation, machinery, equipment or device, or any addition to, reconstruction of or improvement of, land or an existing structure, building, installation, excavation, machinery, equipment or device reasonably used, erected, constructed or installed by any person if:

- (A) The principal purpose of such use, erection, construction or installation is to comply with a requirement imposed by the Department of Environmental Quality, the federal Environmental Protection Agency ... to prevent, control or reduce ... hazardous waste ...; or
- (B) The sole purpose of such use, erection, construction or installation is to prevent, control or reduce a substantial quantity of ... hazardous waste....

(b) Such prevention, control or reduction required by this subsection shall be accomplished by:

- (E) The treatment, substantial reduction or elimination of or redesign to treat, substantially reduce or eliminate hazardous waste as defined in ORS 466.005.

ORS 466.005 provides or references the following definition

Hazardous Waste Pollution is the presence of residues resulting from any process of industry, manufacturing, trade or business or government or from the development or recovery of any natural resources, if such residues cause or contribute to an increase in mortality or an increase in serious irreversible illness; or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported or disposed of.

---

<sup>6</sup> Definitions for ORS 468.155 to 468.190 and 468.962

Hazardous waste does not include radioactive material or the radioactively contaminated containers and receptacles used in the transportation, storage, use or application of radioactive waste, unless the material, container or receptacle is classified as hazardous waste under paragraph (a), (b) or (c) of this subsection on some basis other than the radioactivity of the material, container or receptacle. Hazardous waste does include all of the following which are not declassified by the commission under ORS 466.015 (3):

(a) Discarded, useless or unwanted materials or residues resulting from any substance or combination of substances intended for the purpose of defoliating plants or for the preventing, destroying, repelling or mitigating of insects, fungi, weeds, rodents or predatory animals, including but not limited to defoliant, desiccants, fungicides, herbicides, insecticides, nematocides and rodenticides.

(b) Residues resulting from any process of industry, manufacturing, trade or business or government or from the development or recovery of any natural resources, if such residues are classified as hazardous by order of the commission, after notice and public hearing. For purposes of classification, the commission must find that the residue, because of its quantity, concentration, or physical, chemical or infectious characteristics may:

(A) Cause or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness; or

(B) Pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.

(c) Discarded, useless or unwanted containers and receptacles used in the transportation, storage, use or application of the substances described in paragraphs (a) and (b) of this subsection.

---

**OAR 340-016-0060**<sup>7</sup>

(4) Eligible Activities. The facility shall prevent, reduce, control, or eliminate: ... (c) Hazardous Waste. The facility shall treat, substantially reduce or eliminate hazardous waste as defined in ORS 466.005... .

---

<sup>7</sup> Eligibility



## Material Recovery

### Recommendations and Eligibility Criteria

DEQ recommends the Commission approve \$ 1,821,251 in tax credits to 54 applicants who invested in recycling containers, trucks and balers (facility) used in a material recovery process. Each facility is eligible for a tax credit because it meets the criteria in:

- ORS 468.155 (1)(a) and OAR 340-016-0060 (2)(a) - The sole purpose of the facility is to prevent, control, or reduce a substantial quantity of solid waste.
- ORS 468.155 (1)(b)(D), OAR 340-016-0010(7) and OAR 340-016-0060(4)(e) – The facility prevents, controls, or reduces waste material by using a material recovery process. The process obtains useful material from material that would otherwise be solid waste.
- ORS.468.170 (4)(a) - Each facility satisfies the intents and purposes of ORS chapter 459A - Refuse and Recycling.
- ORS 468.155(3), ORS 468.170(1) and OAR 340-016-0070 - The facility cost recommended for certification represents the actual material recovery cost and does not exceed the taxpayer's (applicant) own cash investment in the facility.
- ORS 468.190 (3) for facilities that cost less than \$50,001, ORS 468.170(1) and ORS 468.190(1) for facilities that cost over \$50,000 - Each applicant accurately determined and DEQ verified the percentage of the facility cost allocable to material recovery.
- ORS 468.173(3)(d) - The maximum tax credit is 35 percent because the applicants submitted their applications between January 1, 2002, and December 31, 2008, inclusively, and the applicant uses the certified facility for material recovery or recycling.

## Reviews

<b>7496</b>	Facility Cost		<b>\$181,540</b>
<b>American Rag &amp; Metal, LLC</b>	Percentage Allocable	X	<b>100%</b>
LLC 20-0427280	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$63,539</b>

## Description

One – International Baler model DHW-9-T, serial number 0303-016 with an integrated model ICBC-48303 conveyor, serial number 0303-032

American Rag and Metal, LLC is a recycler. In the manufacture of rags and wiping cloths, the company uses recycled clothing. The company purchased a building on October 6, 2005, and claims 3 percent of its cost calculated by multiplying the baler system footprint by the total building square footage, 1,800 and 65,000, respectively. After space upgrades, the company completed the installation of the baler system on June 20, 2006. The applicant collects and sorts used clothing and fabrics from area suppliers such as Goodwill Industries. The applicant cleans and cuts materials suitable for cleaning cloths and separates clothing into like items. The applicant bales the cleaning cloths for sale to Pacific Northwest businesses and bales the clothing for shipment to third world countries.

The sole purpose of the claimed facility is to process over 5 million pounds of used cloth per year or approximately 20,000 pounds per day using a material recovery process.

PCI Waste and Recycling provided and installed the system. The paid invoice documented the total cost of the system. DEQ and the applicant considered the prorated income attributable to the baler installation in its return on investment calculation.

The EQC has not issued any certificates to the applicant or to the location. The claimed facility is not a replacement of these previously certified facilities. The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3).

**Applicant Address**  
10707 N.Lombard Street  
Portland, OR 97203

**Facility Address**  
Same as applicant address

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
 December 13-14, 2007 EQC Meeting

<b>7420</b>	Facility Cost		<b>\$43,282</b>
<b>Metro Metals Northwest, Inc</b>	Percentage Allocable	X	<b>100%</b>
C Corp 93-1270871	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$15,149</b>

**Description**

- Eight 1 ½-yard hoppers
- One 1-yard hopper
- Ten 4' X 4' X 4' boxes
- Ten 4' X 4' boxes
- Five 4' X 6' boxes with lids
- Two 50" X 74" X 98" scrap bins
- Two 23-cubic yard drop box with lid
- One Drop box tarp

Metro Metal Northwest, Inc collects and recycles scrap metal, both ferrous and nonferrous, from 500 customers within 300 miles of Portland. The applicant provided the claimed structural steel drop boxes to their commercial customers for collecting scrap metal.

The sole purpose of the claimed facility is to collect 9,984 tons of recyclable metal each year as part of a material recovery process that recovers 233,000 tons of scrap metal each year.

The applicant sells the recovered metals to industries that manufacture new metal products. The applicant states the claimed facility does not replace any EQC approved component on any of the 27 Pollution Control Facilities Certificates issued to the applicant. The applicant also states the claimed facility is used 100 percent of the time in Oregon.

**Applicant Address**  
 5611 NE Columbia Blvd  
 Portland, OR 97218

**Facility Address**  
 Same as applicant address

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
 December 13-14, 2007 EQC Meeting

<b>7422</b>	Facility Cost		<b>\$36,320</b>
<b>Metro Metals Northwest, Inc</b>	Percentage Allocable	X	<b>100%</b>
C Corp 93-1270871	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$12,712</b>

**Description**

- 20 4' X 4' X 4' boxes
- 4 20-yard drop boxes

Metro Metal Northwest, Inc collects and recycles scrap metal, both ferrous and nonferrous, from 500 customers within 300 miles of Portland. The applicant provided the claimed structural steel drop boxes to their commercial customers for collecting scrap metal.

The sole purpose of the claimed facility is to collect 6,240 tons of recyclable metal each year as part of a material recovery process that recovers 233,000 tons of scrap metal each year.

The applicant sells the recovered metals to industries that manufacture new metal products.

The applicant states the claimed facility does not replace any EQC approved component on any of the 27 Pollution Control Facilities Certificates issued to the applicant. The applicant also states the claimed facility is used 100 percent of the time in Oregon.

**Applicant Address**  
 5611 NE Columbia Blvd  
 Portland, OR 97218

**Facility Address**  
 Same as applicant address

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
December 13-14, 2007 EQC Meeting

<b>7423</b>	Facility Cost		<b>\$44,972</b>
<b>Metro Metals Northwest, Inc</b>	Percentage Allocable	X	<b>100%</b>
C Corp 93-1270871	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$15,740</b>

**Description**

- 6 Steel containers
- 7 4' X 4' X 6' boxes
- 8 20-yard drop boxes
- 6 40-yard drop boxes
- 3 ½ -yard dumpers
- 2 Custom Self-Dump Hop

Metro Metal Northwest, Inc collects and recycles scrap metal, both ferrous and nonferrous, from 500 customers within 300 miles of Portland. The applicant provided the claimed structural steel drop boxes to their commercial customers for collecting scrap metal.

The sole purpose of the claimed facility is to collect 21,718 tons of recyclable metal each year as part of a material recovery process that recovers 233,000 tons of scrap metal each year.

The applicant sells the recovered metals to industries that manufacture new metal products.

The applicant states the claimed facility does not replace any EQC approved component on any of the 27 Pollution Control Facilities Certificates issued to the applicant. The applicant also states the claimed facility is used 100 percent of the time in Oregon.

**Applicant Address**  
5611 NE Columbia Blvd  
Portland, OR 97218

**Facility Address**  
Same as applicant address

<b>7424</b>	Facility Cost		<b>\$38,105</b>
<b>Metro Metals Northwest, Inc</b>	Percentage Allocable	X	<b>100%</b>
C Corp 93-1270871	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$13,337</b>

**Description**

One Cason 24' model CCPT-240 Pull Trailer, Vehicle Identification Number 1C9R24456R992015

Metro Metal Northwest, Inc collects and recycles scrap metal, both ferrous and nonferrous, from 500 customers within 300 miles of Portland. The applicant claims a trailer for delivering empty drop boxes and collecting them after commercial customers fill the boxes with scrap metal.

The sole purpose of the claimed facility is to collect 10,000 tons of recyclable metal each year as part of a material recovery process that recovers 233,000 tons of scrap metal each year.

The applicant sells the recovered metals to industries that manufacture new metal products.

The applicant states the trailer does not replace any EQC approved component on any of the 27 Pollution Control Facilities Certificates issued to the applicant. The applicant also states that all previously certified trucks are still in service and that the claimed truck is used 100 percent of the time in Oregon.

**Applicant Address**  
5611 NE Columbia Blvd  
Portland, OR 97218

**Facility Address**  
Same as applicant address

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
December 13-14, 2007 EQC Meeting

<b>7425</b>	Facility Cost		<b>\$19,010</b>
<b>Metro Metals Northwest, Inc</b>	Percentage Allocable	X	<b>100%</b>
C Corp 93-1270871	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$6,654</b>

**Description**

One 2007 International Truck, model 4300, Vehicle Identification Number 1HTMMAL67-370887

Metro Metal Northwest, Inc collects and recycles scrap metal, both ferrous and nonferrous, from 500 customers within 300 miles of Portland. The applicant claims a truck for delivering empty drop boxes and collecting them after commercial customers fill the boxes with scrap metal.

The sole purpose of the claimed facility is to collect 14,000 tons of recyclable metal each year as part of a material recovery process that recovers 233,000 tons of scrap metal each year.

The applicant sells the recovered metals to industries that manufacture new metal products. The applicant states the truck does not replace any EQC approved component on any of the 27 Pollution Control Facilities Certificates issued to the applicant. The applicant accurately reduced the claimed truck cost to 35 percent of the total cost, which represents the percentage of miles driven in Oregon.

**Applicant Address**  
5611 NE Columbia Blvd  
Portland, OR 97218

**Facility Address**  
Same as applicant address

<b>7426</b>	Facility Cost		<b>\$24,417</b>
<b>Metro Metals Northwest, Inc</b>	Percentage Allocable	X	<b>100%</b>
C Corp 93-1270871	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$8,546</b>

**Description**

One 2007 Kenworth T300 Truck, Vehicle Identification Number 2NKMLD9X27M185325

Metro Metal Northwest, Inc collects and recycles scrap metal, both ferrous and nonferrous, from 500 customers within 300 miles of Portland. The applicant claims a truck for delivering empty drop boxes and collect them after commercial customers fill the boxes with scrap metal.

The sole purpose of the claimed facility is to collect 14,000 tons of recyclable metal each year as part of a material recovery process that recovers 233,000 tons of scrap metal each year.

The applicant sells the recovered metals to industries that manufacture new metal products. The applicant states all previously certified trucks are still in service and this truck does not replace any EQC approved component on any of the 27 Pollution Control Facilities Certificates issued to the applicant.

The applicant accurately reduced the claimed truck cost to 35 percent of the total cost, which represents the percentage of miles driven in Oregon.

**Applicant Address**  
 5611 NE Columbia Blvd  
 Portland, OR 97218

**Facility Address**  
 Same as applicant address



<b>7427</b>	Facility Cost		<b>\$24,417</b>
<b>Metro Metals Northwest, Inc</b>	Percentage Allocable	X	<b>100%</b>
C Corp 93-1270871	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$8,546</b>

**Description**

One 2007 Kenworth T300 Truck, Vehicle Identification Number 2NKMLD9X27M185326

Metro Metal Northwest, Inc collects and recycles scrap metal, both ferrous and nonferrous, from 500 customers within 300 miles of Portland. The applicant claims a truck for delivering empty drop boxes and collect them after commercial customers fill the boxes with scrap metal.

The sole purpose of the claimed facility is to collect 14,000 tons of recyclable metal each year as part of a material recovery process that recovers 233,000 tons of scrap metal each year.

The applicant sells the recovered metals to industries that manufacture new metal products. The applicant states the truck does not replace any EQC approved component on any of the 27 Pollution Control Facilities Certificates issued to the applicant.

The applicant accurately reduced the claimed truck cost to 35 percent of the total cost, which represents the percentage of miles driven in Oregon.

**Applicant Address**  
5611 NE Columbia Blvd  
Portland, OR 97218

**Facility Address**  
Same as applicant address

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
 December 13-14, 2007 EQC Meeting

<b>7443</b> <b>Umpqua Bank Leasing</b> C Corp 93-1261319	Facility Cost Percentage Allocable X Maximum Percentage X Tax Credit	\$421,573 100% 35% <hr style="width: 100%;"/> \$147,551
--	---	--

**Description**

- 1,500 14-gallon recycling bins
- 192 65-gallon recycling carts, serial numbers Y65 000998-001189
- 3,229 95-gallon recycling carts, serial numbers R95 002501- 005489, R95 005882-006178, R95 007789-007908
- One Krause Conveyer Belt
- One Autocar, model WXR42 truck, Vehicle Identification Number 5VCE36PE66H202436
- One PendPac 20-yard truck body, serial number AG20060961

Umpqua Bank Leasing (lessor) is a commercial bank that purchased the claimed facility and leased it to Kahut Waste Services, LLC (lessee.) Kahut Waste Services, LLC is a holding company for the following six separate entities: B & J Garbage Company, Canby Disposal, Canby Transfer & Recycling, Hoodview Disposal and Recycling, K. B. Recycling and West Linn Refuse & Recycling. These entities serve in different areas with no service overlap.

The lessor claims 14-gallon bins, 95-gallon carts and a truck outfitted with a recycling body. The lessee (B & J Garbage Company) expanded the curbside recycling program in Clackamas County to collect commingled newspaper, corrugated cardboard, plastic, steel and aluminum cans, junk mail and cereal boxes. The lessor also claims a conveyor that the lessee (K. B. Recycling) uses on a sort line to separate commingled materials.

The lessor also claims the 65-gallon carts that the lessee (B & J Garbage Company) uses in a new service area in Happy Valley's yard debris program.

The lessee experienced a seven percent customer growth rate from 2005 to 2006 and now serves 4,300 residential customers and 130 commercial customers.

The sole purpose of the claimed bins, carts, recycling truck and conveyor is to remove approximately 1,000 tons of recoverable materials and 100 tons of yard debris from the waste stream each year. B & J Garbage Company transports the materials to K. B. Recycling for additional sorting and subsequent sell to a domestic and international buyers and mills that incorporate the material into a useful product. The lessee ships the yard debris to Pacific Land Clearing for additional processing into compost.

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
December 13-14, 2007 EQC Meeting

The EQC issued seven certificates to Umpqua Bank Leasing and 10 certificates to the entities (five to K. B. Recycling and two to B & J Garbage Company) under the holding company Kahut Waste Services, LLC but none to the holding company itself. The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3). The maximum tax credit is 35 percent because the applicant uses the facility in a material recovery process.

**Applicant Address**

Dooling Lease Management Corp  
6400 SW Corbett Avenue  
Portland, OR 97239-3558

**Facility Address**

Kahut Waste Services LLC  
9602 SE Clackamas Rd  
Clackamas, OR 97015

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
 December 13-14, 2007 EQC Meeting

<b>7451</b> <b>Cottage Grove Garbage Service, Inc</b> S Corp 93-1192884	Facility Cost Percentage Allocable X Maximum Percentage X Tax Credit	\$98,069 100% 35% \$34,324
---	---	-------------------------------------

**Description**

- One - 2007 model M2106 Freightliner truck with right-hand drive, serial number FVACXCS87HX84106
- One - Amrep model AMOCSL-11 20-yard manual side loader with two Bayne Cart Tippers, serial number 06503
- One - On-board scale system for rear axles installed on side loader, serial number 65672

Cottage Grove Garbage Service, Inc collects garbage and recyclable materials from 3,000 residential and 500 commercial customers in the City of Cottage Grove and surrounding unincorporated areas of Lane County.

The applicant claims a truck with a side loader for collecting and hauling recyclable materials from residential and commercial generators in the Cottage Grove city limits.

The claimed facility is a truck with manual side loader and on-board scale system. The truck consolidates the recycling efforts previously performed by using three different trucks and drivers. The truck hauls the collected materials to EcoSort in Springfield before being transferred to an SP Recycling for sorting, baling and shipping to intended destinations.

The sole purpose of this facility is to prevent, control or reduce 771 tons of solid waste being diverted into landfills each year. The purpose of the rear axel scale is to avoid overweighing the axles not for ineligible billing or reporting purposes.

The EQC has issued two certificates to the applicant, both for trucks. The claimed truck does not replace the older trucks, which are still in service. The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3).

**Applicant Address**  
 PO Box 442  
 2055 Getty Circle  
 Cottage Grove, OR 97424

**Facility Address**  
 Same as applicant address

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
 December 13-14, 2007 EQC Meeting

<b>7495</b> <b>Far West Fibers, Inc.</b> S Corp 93-0788493	Facility Cost Percentage Allocable X Maximum Percentage X Tax Credit	<b>\$710,973</b> <b>100%</b> <b>35%</b> <hr style="width: 100%;"/> <b>\$248,841</b>
--	---	--

**Description**

One – V-screen, an Eddy current, a Silo, an air system and conveyors

Far West Fibers, Inc. (FWF) is an intermediate processor of commingled household and commercial recyclable materials that includes fiber from newsprint, old corrugated cardboard and junk mail; plastic, glass and metal containers; and film plastics. FWF separates the materials into separate commodities using mechanical and human sorting techniques to produce purer feed stock resulting in a higher acceptance rate at the mills. The applicant ships the resulting feed stock to end-producer mills such as Norpac, Weyerhaeuser, Georgia Pacific or to Asian-rim countries.

The applicant claims a V-screen that separates containers from paper and conveyors to move fiber away from the V-screen. FWF also claims an Eddie Current to electronically separate aluminum cans from steel cans and an air system to blow the aluminum cans from the Eddie Current to the claimed silo to accumulate for baling.

The sole purpose of the claimed facility is to remove approximately 70,362 tons of recyclable materials from the solid waste stream each year.

The EQC has issued 13 certificates to the applicant and 1 to this location. The claimed facility does not replace a previously certified facility. The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3). The maximum tax credit is 35 percent because the applicant uses the facility in a material recovery process.

**Applicant Address**  
 6440 SE Alexander Street  
 Hillsboro, OR 97123

**Facility Address**  
 Same as applicant address

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
December 13-14, 2007 EQC Meeting

<b>7500</b>	Facility Cost		<b>\$7,068</b>
<b>Waste Connections of Oregon, Inc.</b>	Percentage Allocable	X	<b>100%</b>
C Corp 93-0599115	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$2,474</b>

**Description**

1,200 14-Gallon Rehrig Pacific model RB003BL64HO058 recycling bins

Waste Connections of Oregon, Inc. provides solid waste collection and disposal services to residential and commercial customers throughout Wasco County.

The applicant claims 1,200 recycling bins provided to residential customers for accumulating recyclable materials such as paper fiber, metal and glass. The company collects and delivers the recyclable materials to a recovery facility for additional processing and eventual incorporation into viable resalable products.

The sole purpose of the bins is to remove approximately 312 tons of recyclable materials from landfill disposal each year.

Paid invoices document the claimed cost of the carts. The EQC has issued 17 certificates to the applicant and 2 to The Dalles Disposal; however, the bins do not replace a previously certified facility.

**Applicant Address**  
35 Iron Point Circle Suite 200  
Suite 200  
Folsom, CA 95630

**Facility Address**  
The Dalles Disposal  
1317 West 1st  
The Dalles, OR 97058

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
December 13-14, 2007 EQC Meeting

<b>7501</b>	Facility Cost		<b>\$11,780</b>
<b>Waste Connections of Oregon, Inc.</b>	Percentage Allocable	X	<b>100%</b>
C Corp 93-0599115	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$4,123</b>

**Description**

2,000 14-Gallon Rehrig Pacific, model recycling bins model RB003BL64DA031

Waste Connections of Oregon, Inc. provides solid waste collection and disposal services to its residential and commercial customers throughout Hood River County.

The applicant claims 2,000 recycling bins provided to residential customers for accumulating recyclable materials such as paper fiber, metal and glass. The company collects the materials and delivers it to a material recovery facility or mill recovery center for additional processing and incorporation into viable resalable products.

The sole purpose of the bins is to remove approximately 519 tons of recyclable materials from landfill disposal each year.

Paid invoices document the claimed cost of the carts. The EQC has issued 17 certificates to the applicant and one to Hood River Garbage Service, Inc. but the bins do not replace a previously certified facility.

**Applicant Address**  
35 Iron Point Circle  
Suite 200  
Folsom, CA 95630

**Facility Address**  
Hood River Garbage Service, Inc.  
3440 Guignard Drive  
Hood River, OR 97031

<b>7513</b>	Facility Cost		<b>\$10,129</b>
<b>Waste Connections of Oregon, Inc.</b>	Percentage Allocable	X	<b>100%</b>
C Corp 93-0599115	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<u>\$3,545</u>

**Description**

- 110 95-gallon Schaefer model USD-95B yard debris carts
- 95 65-gallon Schaefer model USD-65B recycling carts

Waste Connections of Oregon, Inc. provides solid waste collection and disposal services to residential and commercial customers throughout Columbia County.

The applicant claims yard debris and recycling carts provided to residential customers. The applicant collects and delivers the yard debris to a third-party composting facility for additional processing. The recycling carts accumulate recyclable materials such as paper fiber, metal and glass, which the company collects and delivers to a material recovery facility or mill recovery center for additional processing and incorporation into viable resalable products. T

he sole purpose of the carts is to remove approximately 42 tons of yard debris and 15.5 tons of recyclable materials from landfill disposal each year.

The EQC has issued 17 certificates to the applicant and 2 to Environmental Waste Systems; however, the carts do not replace a previously certified facility.

**Applicant Address**  
 35 Iron Point Circle  
 Suite 200  
 Folsom, CA 95630

**Facility Address**  
 Environmental Waste Systems  
 58597 Old Portland Road  
 St. Helens, OR 97051



<b>7514</b>	Facility Cost		<b>\$15,187</b>
<b>Waste Connections of Oregon, Inc.</b>	Percentage Allocable	X	<b>100%</b>
C Corp 93-0599115	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$5,315</b>

**Description**

- 109 95-gallon Schaefer model USD-95B recycling carts
- 84 95-gallon Schaefer model USD-95B yard debris carts
- 110 65-gallon Schaefer model USD-65B recycling carts

Waste Connections of Oregon, Inc. provides solid waste collection and disposal services to residential and commercial customers throughout Columbia County.

The applicant claims yard debris and recycling carts provided to residential customers for accumulating yard debris. The company collects and delivers the yard debris to a third-party composting facility for additional processing. The recycling carts accumulate recyclable materials such as paper fiber, metal and glass, which the company collects and delivers to a material recovery facility or mill recovery center for additional processing and incorporation into viable resalable products.

The sole purpose of the carts is to remove approximately 42 tons of yard debris and 15.5 tons of recyclable materials from landfill disposal each year.

The EQC has issued 17 certificates to the applicant and 2 to Environmental Waste Systems; however, the carts do not replace a previously certified facility.

**Applicant Address**  
35 Iron Point Circle  
Suite 200  
Folsom, CA 95630

**Facility Address**  
Environmental Waste Systems  
58597 Old Portland Road  
St. Helens, OR 97051

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
December 13-14, 2007 EQC Meeting

<b>7515</b>	Facility Cost		<b>\$10,850</b>
<b>Waste Connections of Oregon, Inc.</b>	Percentage Allocable	X	<b>100%</b>
C Corp 93-0599115	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$3,798</b>

**Description**

2500 14-gallon model SCLA A-1 recycling boxes

Waste Connections of Oregon, Inc. provides solid waste collection and disposal services to residential and commercial customers throughout Wasco County.

The applicant claims recycling boxes placed with residential customers to accumulate recyclable material such as paper fiber, metal and glass. The company collects and delivers the recyclable materials to a recovery facility for additional processing and incorporation into viable resalable products.

The sole purpose of the boxes is to remove approximately 649 tons of recyclable materials from landfill disposal each year. Paid invoices document the claimed cost of the boxes.

The EQC issued 17 certificates to the applicant and 2 certificates to The Dalles Disposal; however, the boxes do not replace a previously certified facility.

**Applicant Address**

35 Iron Point Circle Suite 200  
Suite 200  
Folsom, CA 95630

**Facility Address**

The Dalles Disposal  
1317 West 1st  
The Dalles, OR 97058

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
December 13-14, 2007 EQC Meeting

<b>7516</b>	Facility Cost		<b>\$8,274</b>
<b>Waste Connections of Oregon, Inc.</b>	Percentage Allocable	X	<b>100%</b>
C Corp 93-0599115	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$2,896</b>

**Description**

8 8-yard model SCPK8 containers for recycling cardboard, serial numbered 194374 and 194383 thru 194389

Waste Connections of Oregon, Inc. provides solid waste collection and disposal services to residential and commercial customers throughout Coos County.

The applicant claims recycling containers placed with commercial customers to accumulate cardboard. The company collects and delivers the cardboard to a mill for use as secondary fiber in the manufacture of wood products.

The sole purpose of the containers is to remove approximately 26 tons of cardboard from landfill disposal each year.

The EQC issued 17 certificates to the applicant and 2 certificates to Les' Sanitary Service; however, the containers do not replace a previously certified facility.

**Applicant Address**  
35 Iron Point Circle  
Suite 200  
Folsom, CA 95630

**Facility Address**  
Les' Sanitary Service  
3432 Cedar  
North Bend, OR 97459

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
December 13-14, 2007 EQC Meeting

<b>7517</b>	Facility Cost		<b>\$8,274</b>
<b>Waste Connections of Oregon, Inc.</b>	Percentage Allocable	X	<b>100%</b>
C Corp 93-0599115	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$2,896</b>

**Description**

8 8-yard model SCPK8 containers for recycling cardboard, serial number 1194375-194382

Waste Connections of Oregon, Inc. provides solid waste collection and disposal services to residential and commercial customers throughout Coos County.

The applicant claims recycling containers placed with commercial customers to accumulate cardboard. The company collects and delivers the cardboard to a mill for use as secondary fiber in the manufacture of wood products.

The sole purpose of the containers is to remove approximately 26 tons of cardboard from landfill disposal each year.

The EQC issued 17 certificates to the applicant and 2 certificates to Les' Sanitary Service; however, the containers do not replace a previously certified facility.

**Applicant Address**  
35 Iron Point Circle  
Suite 200  
Folsom, CA 95630

**Facility Address**  
Les' Sanitary Service  
3432 Cedar  
North Bend, OR 97459

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
December 13-14, 2007 EQC Meeting

<b>7518</b>	Facility Cost		<b>\$2,950</b>
<b>Waste Connections of Oregon, Inc.</b>	Percentage Allocable	X	<b>100%</b>
C Corp 93-0599115	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$1,033</b>

**Description**

374 18-gallon recycling bins

Waste Connections of Oregon, Inc. provides solid waste collection and disposal services to residential and commercial customers throughout Coos County.

The applicant claims recycling bins placed with residential customers to accumulate recyclable materials such as fiber, metal, glass and cardboard to a material recovery facility for additional processing and eventual use as secondary fiber or base materials in the manufacture of new products.

The sole purpose of the bins is to remove approximately 111 tons of recyclable materials from landfill disposal each year. Paid invoices document the claimed cost. The EQC issued 17 certificates to the applicant and 2 certificates to Les' Sanitary Service; however, the bins do not replace a previously certified facility.

**Applicant Address**  
35 Iron Point Circle  
Suite 200  
Folsom, CA 95630

**Facility Address**  
Les' Sanitary Service  
3432 Cedar  
North Bend, OR 97459

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
December 13-14, 2007 EQC Meeting

<b>7519</b>	Facility Cost		<b>\$16,457</b>
<b>Waste Connections of Oregon, Inc.</b>	Percentage Allocable	X	<b>100%</b>
C Corp 93-0599115	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$5,760</b>

**Description**

26 4-yard front load bins for recycling cardboard

Waste Connections of Oregon, Inc. provides solid waste collection and disposal services to residential and commercial customers throughout Multnomah County.

The applicant claims recycling bins placed with commercial customers to accumulate fiber and cardboard. The company delivers the recyclable materials to a recovery facility or an area mill for use as secondary fiber in the manufacture of new products.

The sole purpose of the bins is to remove approximately 338 tons of recyclable materials from landfill disposal or from burning each year.

The EQC issued 17 certificates to the applicant and 4 certificates to Oregon Paper Fiber; however, the containers do not replace a previously certified facility.

**Applicant Address**  
35 Iron Point Circle  
Suite 200  
Folsom, CA 95630

**Facility Address**  
Oregon Paper Fiber  
12820 NE Marx  
Portland, OR 97230

<b>7520</b>	Facility Cost		<b>\$2,420</b>
<b>Waste Connections of Oregon, Inc.</b>	Percentage Allocable	X	<b>100%</b>
C Corp 93-0599115	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$ 847</b>

**Description**

200 18-gallon recycling bins

Waste Connections of Oregon, Inc. provides solid waste collection and disposal services to residential and commercial customers throughout Curry County.

The applicant claims recycling bins placed with residential customers to accumulate recyclable materials. The company delivers the recyclable materials to a recovery facility for additional processing and subsequent use in the manufacture of new products.

The sole purpose of the bins is to remove approximately 89 tons of recyclable materials from landfill disposal each year.

The EQC issued 17 certificates to the applicant and 3 certificates to Oregon Paper Fiber; however, the bins do not replace a previously certified facility.

**Applicant Address**  
35 Iron Point Circle  
Suite 200  
Folsom, CA 95630

**Facility Address**  
Curry Transfer & Recycling  
17498 Carpenterville Road  
Brookings, OR 97415

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
December 13-14, 2007 EQC Meeting

<b>7521</b>	Facility Cost		<b>\$3,041</b>
<b>Waste Connections of Oregon, Inc.</b>	Percentage Allocable	X	<b>100%</b>
C Corp 93-0599115	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$1,064</b>

**Description**

374 18-gallon recycling bins

Waste Connections of Oregon, Inc. provides solid waste collection and disposal services to residential and commercial customers throughout Curry County.

The applicant claims recycling bins placed with residential customers to accumulate recyclable materials such as fiber, metal, glass and cardboard to a material recovery facility for a additional processing and eventual use as secondary fiber or base materials in the manufacture of new products.

The sole purpose of the bins is to remove approximately 111 tons of recyclable materials from landfill disposal each year.

The EQC issued 17 certificates to the applicant and 3 certificates to Curry Transfer; however, the bins do not replace a previously certified facility.

**Applicant Address**  
35 Iron Point Circle  
Suite 200  
Folsom, CA 95630

**Facility Address**  
Curry Transfer & Recycling  
17498 Carpenterville Road  
Brookings, OR 97415



Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
December 13-14, 2007 EQC Meeting

<b>7522</b>	Facility Cost		<b>\$7,082</b>
<b>Waste Connections of Oregon, Inc.</b>	Percentage Allocable	X	<b>100%</b>
C Corp 93-0599115	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$2,479</b>

**Description**

168 65-gallon model USD-65B carts

Waste Connections of Oregon, Inc. provides solid waste collection and disposal services to residential and commercial customers throughout Wasco County.

The applicant claims carts placed with residential customers to accumulate yard debris. The company collects and delivers the debris to a third party for composting or use as landscape products.

The sole purpose of the carts is to remove approximately 27 tons of yard debris from landfill disposal or burning each year.

The EQC issued 17 certificates to the applicant and 2 certificates to The Dalles Disposal; however, the carts do not replace a previously certified facility.

**Applicant Address**  
35 Iron Point Circle  
Suite 200  
Folsom, CA 95630

**Facility Address**  
The Dalles Disposal  
1317 West 1st  
The Dalles, OR 97058

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
December 13-14, 2007 EQC Meeting

<b>7524</b>	Facility Cost		<b>\$372,458</b>
<b>Waste Connections of Oregon, Inc.</b>	Percentage Allocable	X	<b>100%</b>
C Corp 93-0599115	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$130,360</b>

**Description**

One 2006 Autocar (Pendpac) Automated Sideload Recycling Truck, VIN  
EVCEC6MF16H202373  
3,843 95-gallon Schaefer recycling carts, model USD-95B carts

Waste Connections of Oregon, Inc. provides solid waste collection and disposal services to residential and commercial customers throughout Linn County.

The company uses the claimed truck to collect and deliver the material to an area material recovery facility or to mills for additional processing and eventual incorporation into a salable product. The applicant claims carts placed with residential customers to accumulate commingled materials in the new commingled recycling program.

The sole purpose of the truck and carts is to remove approximately 1,502 tons of yard debris from landfill disposal or county incineration each year.

The EQC issued 17 certificates to the applicant and 2 certificates to Sweet Home Sanitation; however, the truck and carts do not replace a previously certified facility. The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3).

**Applicant Address**  
35 Iron Point Circle  
Suite 200  
Folsom, CA 95630

**Facility Address**  
Sweet Home Sanitation  
1001 Long Street  
Sweethome, OR 97386

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
December 13-14, 2007 EQC Meeting

<b>7533</b>	Facility Cost		<b>\$16,151</b>
<b>Global Leasing, Inc</b>	Percentage Allocable	X	<b>100%</b>
S Corp 93-1097105610	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$5,653</b>

**Description**

Two - 20-yard Super Clean drop boxes, serial numbers 14388 - 14389  
Two - 30-yard Super Clean drop boxes, serial numbers 14390 – 14391

Global Leasing, Inc (lessor) is an equipment leasing company.

The lessor claims recycling four drop boxes leased to Garbarino Disposal & Recycling Service, Inc. (lessee). The lessee uses the boxes to collect commingled recycling from commercial customers. The lessee experienced a 7 percent customer growth rate in the last year and now serves 5,000 residential and 500 commercial customers in the cities of Hillsboro, Beaverton, Portland and unincorporated Washington County. The lessee transports the materials to Far West Fibers, SP Recycling and Smurfit for additional sorting and sale as feedstock in manufacturing new products.

The sole purpose of the claimed facility is to remove approximately 242 tons of solid waste from landfill disposal each year.

The EQC has issued 26 certificates to the lessor and 4 to the lessee, approving 6 similar boxes. The claimed facility is not a replacement to any previously certified facility.

**Applicant Address**  
PO Box 250  
North Plains, OR 97133

**Facility Address**  
30966 NW Hillcrest St  
North Plains, OR 97133

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
December 13-14, 2007 EQC Meeting

<b>7536</b>	Facility Cost		<b>\$10,197</b>
<b>Global Leasing, Inc</b>	Percentage Allocable	X	<b>100%</b>
S Corp 93-1097105610	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$3,569</b>

**Description**

One - 20-yard Holt model 18548HS roll-off box, serial number 15027  
One - 30-yard Holt model 2065HS roll-off box, serial number 15043

Global Leasing, Inc (lessor) is an equipment leasing company.

The lessor claims recycling two boxes leased to Garbarino Disposal & Recycling Service, Inc. (lessee). The lessee uses the boxes to collect commingled recycling from commercial customers.

The lessee experienced a 7 percent customer growth rate in the last year and now serves 5,000 residential and 500 commercial customers in the cities of Hillsboro, Beaverton, Portland and unincorporated Washington County. The lessee transports the materials to Far West Fibers, SP Recycling and Smurfit for additional sorting and sale as feedstock in manufacturing new products.

The sole purpose of the claimed facility is to remove approximately 242 tons of solid waste from landfill disposal each year.

The EQC has issued 26 certificates to the lessor and 4 to the lessee, approving 8 similar boxes. The claimed facility is not a replacement to any previously certified facility.

**Applicant Address**  
PO Box 250  
North Plains, OR 97133

**Facility Address**  
30966 NW Hillcrest St  
North Plains, OR 97133

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
December 13-14, 2007 EQC Meeting

<b>7537</b>	Facility Cost		<b>\$157,167</b>
<b>Global Leasing, Inc</b>	Percentage Allocable	X	<b>40%</b>
S Corp 93-1097105610	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$22,003</b>

**Description**

One - 2007 Autocar WX54 model PA3, serial number 5VCD6MF27H204386 with a Pacific packer-front loader

Global Leasing, Inc (lessor) is an equipment leasing company. The lessor claims recycling truck leased to Garbarino Disposal & Recycling Service, Inc. (lessee).

The lessee uses the truck 40 percent of the time to collect commingled recycling from commercial customers, accurately excluding truck use associated with collecting garbage containers. The lessee experienced a 7 percent customer growth rate in the last year and now serves 5,000 residential and 500 commercial customers in the cities of Hillsboro, Beaverton, Portland and unincorporated Washington County. The lessee transports the materials to Far West Fibers, SP Recycling and Smurfit for additional sorting and sale as feedstock in manufacturing new products.

The sole purpose of the claimed facility is to remove approximately 160 tons of solid waste from landfill disposal each year.

The applicant agreed with the Department's subtraction of \$20,855 for federal excise.

The EQC has issued 26 certificates to the lessor and 4 to the lessee, approving 6 recycling trucks. The claimed facility is not a replacement to any previously certified facility. The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3).

**Applicant Address**

PO Box 250  
North Plains, OR 97133

**Facility Address**

30966 NW Hillcrest St  
North Plains, OR 97133

<b>7543</b>	Facility Cost		<b>\$6,500</b>
<b>Innovative Cereal Systems, LLC</b>	Percentage Allocable	X	<b>100%</b>
	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$2,275</b>

**Description**

One - Used JV Manufacturing model DBR60LU 60" Downstroke Baler, serial number BD-0126901

Innovative Cereal Systems (ICS) manufactures baking ingredients, blending flour, calcium sulfate and other food ingredients with natural enzymes at its Wilsonville, Oregon site. Products include enzyme-based softener and oxidation systems sold to industrial bakeries in 50-pound bags. The company ships pallets of the dry mix throughout North America.

The applicant claims a baler to recycle cardboard, paper, plastics and other recyclable materials generated through the process. The baler has a 10 horse power motor with 56,550 pounds of normal baling force. A recycling company collects the bound bales and sells them to the appropriate markets for eventual use in the manufacture of a useful product.

The sole purpose of the baler is to recycle approximately 249 tons of cardboard, paper, plastics and other materials annually. This represents a 78 percent decrease in solid waste disposed in the landfill.

The EQC has not issued any certificates to the applicant, therefore, the baler is not a replacement to a previously certified facility.

**Applicant Address**  
26994 SW 95th Avenue  
Wilsonville, OR 97070

**Facility Address**  
Same as applicant address

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
December 13-14, 2007 EQC Meeting

<b>7544</b>	Facility Cost		<b>\$27,918</b>
<b>Newberg Garbage Service, Inc</b>	Percentage Allocable	X	<b>100%</b>
S Corp 93-0625804	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$9,771</b>

**Description**

325-- 95-gallon roll carts for yard debris, serial number 9013557-9013706 and 9013941-9014115  
275-- 95-gallon roll carts for commingled recycling, serial number 9013707-9013856 and 9014116-9014240

Newberg Garbage Service is the garbage and recycling provider for the cities of Newberg, Dundee, and Sherwood, East Yamhill County and portions of Washington County.

The applicant claims 600 roll carts placed with the City of Newburg's growing residential customer base and customers recently annexed into the Urban Growth Boundary.

The sole purpose of the yard debris carts is to reduce 287 tons of yard debris per year and 108 tons annually of commingled recycling that includes scrap paper, telephone books, corrugated cardboard, plastic, aluminum and yard debris collection services. The company transports the recyclable materials to SP or KB Recycling for additional sorting, and transports yard debris to NW Greenlands for composting.

The company currently serves 5,248 residential customers (6.6 percent increase from 2005) and 511 commercial customers in the City of Newberg. In 2006, the company collected 1,195 tons of recyclable materials (11 percent increase from 2005) and 1,696 tons of yard debris (4 percent increase from 2005).

The EQC issued 19 certificates to the applicant, however, the claimed facility is not a replacement of previously certified carts.

---

**Applicant Address**  
PO Box 1000  
Newberg, OR 97132

**Facility Address**  
Same as applicant address

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
December 13-14, 2007 EQC Meeting

<b>7545</b>	Facility Cost		<b>\$21,688</b>
<b>Newberg Garbage Service, Inc</b>	Percentage Allocable	X	<b>100%</b>
S Corp 93-0625804	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$7,591</b>

**Description**

Six – Wastequip-Oregon model 1654SC 20-yard Super-Clean Roll-Off boxes, serial number 14536-14541

Newberg Garbage Service is the garbage and recycling provider for the cities of Newberg, Dundee, and Sherwood, east Yamhill County and portions of Washington County.

The company's commercial customer base is 594 including 24 wineries and 13 processing plants. An growth in the number of area wineries has increased the applicant's customer base and grape pulp disposal by 57 percent from the 2005 to the 2006 harvest season. The applicant claims six boxes placed with wineries to collect grape pulp.

The sole purpose of the boxes is to collect approximately 1,165 tons of grape pulp annually for transportation to NW Greenlands in McMinnville for composting. Without the boxes, the pulp would have been disposed of in the landfill.

The EQC issued 19 certificates to the applicant, however, the pulp collection boxes do not replace previously certified boxes.

**Applicant Address**  
PO Box 1000  
Newberg, OR 97132

**Facility Address**  
Same as applicant address



Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
December 13-14, 2007 EQC Meeting

<b>7546</b>	Facility Cost		<b>\$19,411</b>
<b>Global Leasing, Inc</b>	Percentage Allocable	X	<b>100%</b>
S Corp 93-1097105610	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$6,794</b>

**Description**

378 - 65-gallon Rehrig Pacific Company model RC 684GR59GA006A recycling carts

Global Leasing, Inc (lessor) is an equipment leasing company. The lessor claims recycling carts leased to Garbarino Disposal & Recycling Service, Inc. (lessee).

The lessee uses the carts to collect commingled recycling from residential customers. The lessee experienced a 7 percent customer growth rate in the last year and now serves about 5,000 residential and 500 commercial customers in the cities of Hillsboro, Beaverton, Portland and unincorporated Washington County. The lessee transports the materials to Far West Fibers, SP Recycling and Smurfit for additional sorting and sale as feedstock in manufacturing new products.

The sole purpose of the carts is to divert an additional 685 tons of solid waste from landfill disposal annually.

The EQC has issued 26 certificates to the lessor and 4 to the lessee, approving 715 similar carts. The claimed facility is not a replacement to any previously certified facility.

**Applicant Address**  
PO Box 250  
North Plains, OR 97133

**Facility Address**  
30966 NW Hillcrest St  
North Plains, OR 97133

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
December 13-14, 2007 EQC Meeting

<b>7547</b>	Facility Cost		<b>\$132,500</b>
<b>The Penguin Group, LLC</b>	Percentage Allocable	X	<b>100%</b>
LLC 41-92216303	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$46,375</b>

**Description**

One - 2002 Crane Carrier recycling truck, Vehicle Identification Number 1CYCCK4892T045535, equipped with a Labrie Expert 2000 body, serial number CL02102SAG

The Penguin Group, LLC is a recycling equipment leasing company (lessor). The company provides recycling trucks and equipment to Rockwood Solid Waste, Inc. (lessee). The lessee serves 3,366 residential and 245 multi-family homes and commercial customers in areas of Gresham, Portland and unincorporated Multnomah County.

The applicant claims a truck for collecting yard debris from residential customers and transporting it to a local processor for additional processing.

The sole purpose of the new truck is to remove approximately 216 tons of wood debris from landfill disposal or burning.

The EQC has not issued any certificates to the applicant and one to Rockwood Solid Waste, Inc. for a 1999 Peterbilt truck (Vehicle Identification Number 1NPZHD7X6Y0712147) equipped with a Labrie recycling body, which is still in service. The claimed facility is not a replacement. The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3).

**Applicant Address**  
7220 SW Northvale Way  
Portland, OR 97225

**Facility Address**  
Rockwood Solid Waste, Inc.  
2550 NW Burnside Court  
Gresham, OR 97030

<b>7554</b>	Facility Cost		<b>\$2,150</b>
<b>Kiser Enterprises, Inc.</b>	Percentage Allocable	X	<b>100%</b>
S Corp 93-0801438	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$ 753</b>

**Description**

250 - 14-gallon model RB503OR02WI000H recycling bins

Kaiser Enterprises, Inc., dba Wichita Sanitary Services, is a refuse and recycling company that serves 1547 residential, 25 commercial customers in the City of Milwaukie, Clackamas County. The company places two recycling bins with each customer.

The applicant claims bins placed with residential single and commercial customers for curbside commingled recycling. The company collects the recyclable materials (newspaper, magazines, scrap paper, paper board, cardboard, tin, plastic, and glass) and delivers it to K. B. Recycling for additional processing. K. B. Recycling sells the material to the appropriate market for incorporation into a useful product. The applicant also collects motor oil and delivers it to the Metro South Transfer Station.

The sole purpose of these bins is to remove approximately 351 tons of waste materials from the solid waste stream each year.

The EQC has issued six certificates to the applicant certifying three trucks, yard debris carts and recycling bins. The claimed drop bins do not replace a previously certified facility.

**Applicant Address**  
PO Box 338  
Gladstone, OR 97027

**Facility Address**  
Milwaukie, OR 97222

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
December 13-14, 2007 EQC Meeting

<b>7555</b>	Facility Cost		<b>\$2,407</b>
<b>Kiser Enterprises, Inc.</b>	Percentage Allocable	X	<b>100%</b>
C Corp 93-0801438	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$ 842</b>

**Description**

50 - 14-gallon model RB503OR02WI000H recycling bins

Kaiser Enterprises, Inc., dba Wichita Sanitary Services, is a refuse and recycling company that serves 1,547 residential and 25 commercial customers in the City of Milwaukie, Clackamas County.

The applicant claims yard debris collection carts. The company collects the woody debris and delivers it to McFarlane's Bark, Inc in Milwaukie for manufacturing soil amendments, compost or bark dust.

The sole purpose of these carts is to remove approximately 25 tons of woody debris from the solid waste stream each year.

The EQC has issued six certificates to the applicant certifying three trucks, yard debris carts and recycling bins. The claimed drop bins do not replace a previously certified facility.

**Applicant Address**  
PO Box 338  
Gladstone, OR 97027

**Facility Address**  
Milwaukie, OR 97222

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
December 13-14, 2007 EQC Meeting

<b>7558</b>	Facility Cost		<b>\$43,300</b>
<b>Sunset Refuse &amp; Recycling</b>	Percentage Allocable	X	<b>100%</b>
C Corp 93-1131527	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$15,155</b>

**Description**

One - 2001 CAT model 308BSR excavator, serial number 3YS3873

Sunset Refuse and Recycling operates in Clatsop County.

The applicant claims an excavator at their Coast Recovery Zone recycling center in Astoria to move cardboard from the tip floor to a baler. The company sends the baled cardboard to area paper mills for use as secondary fiber.

The sole purpose of the excavator is to process approximately 2,326 tons of cardboard each year thus diverting it from the landfill.

The EQC has issued two certificates to the applicant and three to KE Enterprises, the applicant's parent company. The claimed excavator is not a replacement to a previously certified facility.

**Applicant Address**  
PO Box 509  
McMinnville, OR 97128

**Facility Address**  
2320 SE 12th Place  
Warrenton, OR 97146

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
 December 13-14, 2007 EQC Meeting

<b>7565</b> <b>L &amp; M K Enterprises, LLC</b> LLC 20-0215126	Facility Cost Percentage Allocable X Maximum Percentage X Tax Credit	<b>\$43,704</b> <b>100%</b> <b>35%</b> ----- <b>\$15,296</b>
--	---	--

**Description**

- Nine 2-yard Dewald Northwest recycling containers, serial numbers 198156-198164
- Thirty 3-yard Dewald Northwest recycling containers, serial numbers 197093-197112, 198156-198164
- Thirteen 4-yard Dewald Northwest recycling containers, serial number 197113-197121, 198131-198135
- Thirteen 6-yard Dewald Northwest recycling containers, serial number 197122-197134

L & M K Enterprises (lessor, applicant) leases commercial machinery and equipment primarily to recycling and garbage collection companies. The applicant leases the containers to Pacific Sanitation, Inc (lessee, operator). The lessee serves 9,645 residential and 819 commercial customers in Marion County and placed the containers with commercial customers for accumulating corrugated cardboard.

The sole purpose of the containers is to prevent approximately 480 tons solid waste from entering the waste stream each year. The operator sells the material to Marion Resource Recovery Facility or Garten Services, Inc. for a nominal amount and for eventual use as feed stock and secondary fiber.

The EQC issued three certificates to the applicant for equipment leased to the operator and eight certificates to the lessee. The claimed facility is not a replacement of these previously certified facilities.

**Applicant Address**  
 PO Box 17669  
 Salem, OR 97305-7669

**Facility Address**  
 Pacific Sanitation, Inc.  
 3475 Blossom Drive NE  
 Salem, OR 97305

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
 December 13-14, 2007 EQC Meeting

<b>7568</b> <b>Newberg Garbage Service, Inc</b> S Corp 93-0625804	Facility Cost Percentage Allocable X Maximum Percentage X Tax Credit	\$132,002 100% 35% <hr/> \$46,201
---	---	--

**Description**

One - 2007 Peterbilt automated truck, Vehicle Identification Number 1NPZL00X77D717194  
 with a Labrie 31-yard Automizer Split Body, serial number SF006106DRS

Newberg Garbage Service is the garbage and recycling provider for the cities of Newberg, Dundee, Sherwood, east Yamhill County and portions of Washington County.

The applicant claims 56.5 percent of a new split body truck to collect recyclable materials and yard debris from residential customers in the City of Newberg. The company serves 5,248 residential and 511 commercial customers.

The sole purpose of the eligible portion of the truck is to collect approximately 398 tons of recyclable materials and 565 tons of yard debris each year. The company transports the commingled materials to SP or KB Recycling for additional sorting and transports yard debris to NW Greenlands for composting.

The company accurately subtracted 43.5 percent from the total truck cost for the percentage of time they use the truck to collect and haul residual waste to the landfill. DEQ verified the percentage of the facility allocable to pollution control provided with the application.

The EQC issued 19 certificates to the applicant that included 3 trucks. The claimed truck reflects the growth in the service area. It is not a replacement of a previously certified truck. The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3).

**Applicant Address**  
 PO Box 1000  
 Newberg, OR 97132

**Facility Address**  
 2904 Wynooski Road  
 Newberg, OR 97132

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
December 13-14, 2007 EQC Meeting

<b>7571</b>	Facility Cost		<b>\$80,688</b>
<b>Deschutes Transfer Company, Inc</b>	Percentage Allocable	X	<b>100%</b>
S Corp 93-101703	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$28,241</b>

**Description**

One - 2007 Star Trailer, VIN 1S9H5340X7S0A26661, with a Keith Uploading Floor System, serial number 070379

Deschutes Transfer Company, Inc transports garbage and recyclable materials from transfer stations in Deschutes County to disposal sites or recycling facilities. The applicant claims a transfer trailer (unit number 185) used to collect commingled materials from commercial haulers. The trailer resides at the Negus Transfer Station. When it is full, the company transports the commingled materials to Mid Oregon Recycling located in Bend, Oregon where the material is baled and shipped to a sorting facility in the Portland area. The sorting facility separates the commingled recyclable materials and ships it to various mills for remanufacture into new products.

The sole purpose of the new trailer is to remove approximately 2,200 tons of recoverable materials from landfill disposal. The new trailer is part of a process that increased recycling at the transfer station by about 18 percent from 2006 to 2007.

The EQC issued three certificates to the applicant, three certificates to Deschutes Transfer Company, Inc. and two certificates to Bend Garbage Company, Inc. at the same address. The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3).

**Applicant Address**  
PO Box 504  
Bend, OR 97709

**Facility Address**  
20835 NE Montana Way  
Bend, OR 97701



Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
 December 13-14, 2007 EQC Meeting

<b>7572</b>	Facility Cost		<b>\$80,688</b>
<b>Deschutes Transfer Company, Inc</b>	Percentage Allocable	X	<b>100%</b>
S Corp	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$28,241</b>

**Description**

One - 2007 Star Trailer, Vehicle Identification Number 1S9H5340X7S0A26662, with a Keith Uploading Floor System, serial number 070380

Deschutes Transfer Company, Inc transports garbage and recyclable materials from transfer stations in Deschutes County to disposal sites or recycling facilities.

The applicant claims a transfer trailer (unit number 185) used to collect commingled materials from commercial haulers. The trailer resides at the Negus Transfer Station. When full, the company transports the commingled materials to Mid Oregon Recycling located in Bend, Oregon, where the material is baled and shipped to a sorting facility in the Portland area. The sorting facility separates the commingled recyclable materials and ships it to various mills for remanufacture into new products.

The sole purpose of the new trailer is to remove approximately 2,200 tons of recoverable materials from landfill disposal. The new trailer is part of a process that increased recycling at the transfer station by about 18 percent from 2006 to 2007.

The EQC issued three certificates to the applicant, three certificates to Deschutes Transfer Company, Inc and two certificates to Bend Garbage Company, Inc at the same address. The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3).

**Applicant Address**  
 PO Box 504  
 Bend, OR 97709

**Facility Address**  
 20835 NE Montana Way  
 Bend, OR 97701

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
December 13-14, 2007 EQC Meeting

<b>7574</b>	Facility Cost		<b>\$50,850</b>
<b>Newberg Garbage Service, Inc</b>	Percentage Allocable	X	<b>100%</b>
S Corp 93-0625804	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$17,798</b>

**Description**

One - 2001 Volvo Truck, Vehicle Identification Number 4V2DC6HEXIN314767 with a Labrie 31-yard Split Body, serial number 904636

Newberg Garbage Service is the garbage and recycling provider for the cities of Newberg, Dundee, Sherwood, east Yamhill County and portions of Washington County.

The applicant claims 56.5 percent of a used split-body truck to collect recyclable materials and yard debris from residential customers in the City of Newberg and in the Urban Growth Boundary. The company serves 5,248 residential and 511 commercial customers with a growth rate of about 3 percent a year.

The sole purpose of the eligible portion of the truck is to collect approximately 398 tons of recyclable materials and 565 tons of yard debris each year. The company transports the commingled materials to SP or KB Recycling for additional sorting and transports the yard debris to NW Greenlands for composting.

The company accurately subtracted 43.5 percent from the total truck cost for the percentage of time they use the truck to collect and haul residual waste to the landfill. The EQC issued 19 certificates to the applicant that included 3 trucks. These trucks are still in service and the EQC did not certify the used truck to the previous owner; therefore, it is not a replacement of a previously certified truck. The claimed truck reflects the growth in the service area. The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3).

**Applicant Address**  
PO Box 1000  
Newberg, OR 97132

**Facility Address**  
2904 Wyooski Road  
Newberg, OR 97132

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
December 13-14, 2007 EQC Meeting

<b>7575</b>	Facility Cost		<b>\$175,602</b>
<b>Umpqua Bank Leasing</b>	Percentage Allocable	X	<b>100%</b>
C Corp 93-1261319	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$61,461</b>

**Description**

3,250 95-gallon recycling carts, serial numbers 4501-7750

Umpqua Bank Leasing (lessor) is a commercial bank that purchased the claimed facility and leased it to B & B Leasing Co., Inc. (lessee.) The lessee also operates as Gladstone Disposal Company, Inc., Molalla Sanitary Service, Inc., and Oregon City Garbage Co.

The lessor claims recycling carts that the lessee uses to collect commingled recyclable materials (plastic, metal, cardboard and paper) from residential and commercial customers. The lessee experienced a 4 percent customer growth rate in the last year and now serves 21,179 residential and 627 commercial customers in the City of Molalla, Gladstone, Oregon City, and unincorporated Clackamas County.

The sole purpose of the claimed carts is to remove approximately 32.1 tons of recoverable materials from the waste stream. By replacing older 14-gallon bins with the carts, the recycling rate increased by 50 percent. The company transports the materials to SP Recycling Company for additional sorting prior to selling the material to a mill that incorporates the material into a useful product.

The EQC issued 21 certificates to the lessor and 1 to the lessee. The EQC did not certify the replaced 14-gallon bins. The claimed facility is not a replacement of any previously certified recycling containers. The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3).

**Applicant Address**

Dooling Lease Management Corp  
6400 SW Corbett Avenue  
Portland, OR 97239

**Facility Address**

B & B Leasing Co., Inc. et al  
332 Morton Road  
Oregon City, OR 97045

<b>7585</b>	Facility Cost		<b>\$76,623</b>
<b>Southern Oregon Sanitation</b>	Percentage Allocable	X	<b>100%</b>
S Corp 93-0630917	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<u><b>\$26,818</b></u>

**Description**

1,596 – 65-gallon recycling carts

Southern Oregon Sanitation is a waste hauler that provides recycling services to 20,951 residential and 1,933 commercial customers in Grants Pass, Eagle Point, Gold Hill, Rogue River, Shady Cove, Cave Junction, Prospect, Glendale, Jackson County and parts of Douglas County.

The applicant claims recycling carts provided to residential customers inside the urban growth boundary of Grants Pass to accumulate commingled recyclable materials. The carts replaced smaller bins.

The sole purpose of the new carts is to remove approximately 835 tons of cardboard, tin cans, plastic containers and paper from landfill disposal each year. The new carts are part of a process that increased recycling in this service area by about 30 percent from 2006 to 2007.

The EQC has not issued any certificates to the applicant or to the applicant's location; therefore, the carts are not replacements to previously certified recycling containers. The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3).

**Applicant Address**  
 1381 Redwood Avenue  
 Grants Pass, OR 97527

**Facility Address**  
 Same as applicant address

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
December 13-14, 2007 EQC Meeting

<b>7587</b>	Facility Cost		<b>\$87,697</b>
<b>Southern Oregon Sanitation</b>	Percentage Allocable	X	<b>100%</b>
S Corp 93-0630917	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$30,694</b>

**Description**

- One - 20-yard model 2043SC Super-Clean Roll-Off Boxes
- Five - 40-yard model 2278SC Super-Clean Roll-Off Boxes
- One - 12' x 48' six-inch thick pad on a 6'4" high ramp with railing

Southern Oregon Sanitation is a waste hauler that provides recycling services to 20,951 residential and 1,933 commercial customers in Grants Pass, Eagle Point, Gold Hill, Rogue River, Shady Cove, Cave Junction, Prospect, Glendale, Jackson County and parts of Douglas County.

The applicant claims six boxes for collecting recyclable materials at the Kerby Transfer Center and a recycling ramp area used for bin transfer and loading.

The sole purpose of the boxes and recycling ramp is to remove approximately 75 tons of recyclable materials such as cardboard, tin cans, plastic containers and paper from landfill disposal each year.

The EQC has not issued any certificates to the applicant or to the applicant's location; therefore, the carts are not replacements to previously certified recycling containers. The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3).

**Applicant Address**  
1381 Redwood Avenue  
Grants Pass, OR 97527

**Facility Address**  
Kerby Transfer Center  
905 Kerby Mainline Road  
Kerby, OR 97531

<b>7597</b>	Facility Cost		<b>\$12,000</b>
<b>High Country Enterprises, LLC</b>	Percentage Allocable	X	<b>100%</b>
LLC 93-1257933	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$4,200</b>

**Description**

One – 1992 Lodal Recycling Truck, Vehicle Identification Number 1L9CG47B4NK006722

High Country Enterprises, LLC is a garbage and recycling hauler that serves 12,987 residential and 1,082 commercial customers.

The company claims a side-load truck to collect commingled recyclable materials and deliver the materials to Mid Oregon Recycling, LLC. Mid Oregon Recycling bales the materials and ships it to KB Recycling in Clackamas for additional sorting and shipment to the appropriate markets for incorporation into new products.

The sole purpose of the claimed truck is to reduce approximately 1,207 tons of recyclable materials from landfill disposal each year. Commingled collection increased by 16 percent with the use of the claimed truck.

The Environmental Quality Commission issued four certificates to the applicant at this location. The claimed truck was not previously certified and it does not a replacement a previously certified truck.

**Applicant Address**

PO Box 504  
Bend, OR 97709

**Facility Address**

1090 NE Hemlock Ave  
Redmond, OR 97756

<b>7604</b>	Facility Cost		<b>\$169,480</b>
<b>Bend Garbage Company, Inc</b>	Percentage Allocable	X	<b>100%</b>
C Corp 93-0890916	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$59,318</b>

**Description**

3,840 - 95-gallon roll carts

Bend Garbage Company, Inc. collects garbage and recyclable materials from its 13,052 residential and 1,276 commercial customers, and numerous construction sites located in Deschutes County.

The applicant claims carts placed with residential customers to accumulate yard debris in a new voluntary program in the City of Bend. The company collects and delivers the material to Deschutes Recycling for additional processing into compost, landscape cover and soil amendments.

The sole purpose of the carts is to remove approximately 2,458 tons of yard debris per year from the solid waste stream or from backyard burning.

The EQC has issued eleven certificates to the applicant certifying a recycling depot, recycling containers and five trucks. The claimed carts do not replace 3,454 previously certified for the commingled recycling carts. The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3).

**Applicant Address**

PO Box 504  
Bend, OR 97709

**Facility Address**

Bend Garbage & Recycling Company  
20835 NE Montana Way  
Bend, OR 97701

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
December 13-14, 2007 EQC Meeting

<b>7605</b>	Facility Cost		<b>\$10,305</b>
<b>Global Leasing, Inc</b>	Percentage Allocable	X	<b>100%</b>
S Corp 93-1097105610	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$3,607</b>

**Description**

Two - 40-yard Super Clean drop boxes, serial numbers 15631 and 15632

Global Leasing, Inc (lessor) is an equipment leasing company. The lessor claims recycling two drop boxes leased to Garbarino Disposal & Recycling Service, Inc. (lessee). The lessee uses the boxes to collect commingled recycling from residential and commercial customers.

The lessee experienced a 7 percent customer growth rate in the last year and now serves 5,000 residential and 500 commercial customers in the cities of Hillsboro, Beaverton, Portland and unincorporated Washington County. The lessee transports the materials to Far West Fibers, SP Recycling and Smurfit for additional sorting and sale as feedstock in manufacturing new products.

The sole purpose of the claimed facility is to remove approximately 1,222 tons of solid waste from landfill disposal each year.

The EQC has issued 26 certificates to the lessor and 4 to the lessee, approving 6 similar boxes. The claimed facility is not a replacement to any previously certified facility.

**Applicant Address**  
PO Box 250  
North Plains, OR 97133

**Facility Address**  
30966 NW Hillcrest St  
North Plains, OR 97133



Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
December 13-14, 2007 EQC Meeting

<b>7606</b>	Facility Cost		<b>\$18,468</b>
<b>Global Leasing, Inc</b>	Percentage Allocable	X	<b>100%</b>
S Corp 93-1097105610	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$6,464</b>

**Description**

378 - 65-gallon recycling carts

Global Leasing, Inc (lessor) is an equipment leasing company. The lessor claims recycling four drop boxes leased to Garbarino Disposal & Recycling Service, Inc. (lessee). The lessee uses the carts to collect commingled recycling from Hillsboro residential customers.

The lessee experienced a 7 percent customer growth rate in the last year and now serves 5,000 residential and 500 commercial customers in the cities of Hillsboro, Beaverton, Portland and unincorporated Washington County. The lessee transports the materials to Far West Fibers, SP Recycling and Smurfit for additional sorting and sale as feedstock in manufacturing new products.

The sole purpose of the claimed facility is to remove approximately 685 tons of solid waste from landfill disposal each year.

**Applicant Address**  
PO Box 250  
North Plains, OR 97133

**Facility Address**  
30966 NW Hillcrest St  
North Plains, OR 97133

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
December 13-14, 2007 EQC Meeting

<b>7632</b>	Facility Cost		<b>\$144,384</b>
<b>High Country Enterprises, LLC</b>	Percentage Allocable	X	<b>100%</b>
LLC 93-1257933	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$50,534</b>

**Description**

3,072 – 95-gallon roll carts

High Country Enterprises, LLC is a garbage and recycling hauler that serves 12,987 residential and 1,082 commercial customers.

The company claims roll carts to accumulate yard debris from residential customers in the City of Redmond. The company collects and delivers the yard debris to Deschutes Recycling for composting into soil amendments.

The sole purpose of the claimed carts is to reduce approximately 2,500 tons of recyclable materials from landfill disposal each year.

The Environmental Quality Commission issued four certificates to the applicant at this location. The claimed carts do not replace previously certified carts. The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3).

**Applicant Address**  
PO Box 504  
Bend, OR 97709

**Facility Address**  
1090 NE Hemlock Ave  
Redmond, OR 97756

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
 December 13-14, 2007 EQC Meeting

<b>7642</b>	Facility Cost		<b>\$117,279</b>
<b>Miller Associated Enterprises Inc</b>	Percentage Allocable	X	<b>100%</b>
S Corp 93-0941217	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$41,048</b>

**Description**

- 1,444 65-gallon yard-debris roll carts, serial numbers Y 005251 – 006314 and Y 005101 – 005480
- 975 65-gallon recycling roll carts, serial numbers LAR 004697 – 004821, LAR 004840 – 005219, and LAR 004822 – 005291

Miller Associated Enterprises Inc. collects and transports residential refuse, recycling and yard debris from over 8,000 customers in the City of Eugene. The applicant claims carts placed with residential customers to accumulate yard debris and commingled recyclable materials.

The sole purpose of the carts is to reduce solid waste by 557 tons per year using the yard debris carts and 81 tons per year using the recycling carts. In the commingled recycling program, the company collects plastic, cardboard, newspaper, tin, aluminum, glass, junk mail, magazines and used oil.

The carts are used to pre-segregate recyclable materials from refuse as part of a material recovery process. The company delivers the commingled materials to an area Material Recovery Facility (MRF) for sorting and processing. The MRF sells the material to the appropriate markets or mills for use in the manufacture of new products. The applicant delivers the yard debris to a local processor that grinds and/or composts the yard debris to make soil amendments and landscapes products.

The EQC has issued seven certificates to the applicant certifying yard debris and recycling carts and a truck. Some serial numbers duplicate carts certified on December 14, 2006. The manufacturer provided an affidavit verifying an error in assigning duplicative serial numbers. The claimed carts do not replace previously certified carts. The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3).

**Applicant Address**  
 PO Box 40097  
 Eugene, OR 97404

**Facility Address**  
 2399 Hwy 99N  
 Eugene, OR 97402

<b>7645</b> <b>L &amp; M K Enterprises, LLC</b> LLC 20-0215126	Facility Cost Percentage Allocable X Maximum Percentage X Tax Credit	\$30,656 <b>100%</b> <b>35%</b> <hr/> \$10,730
--	---	---

**Description**

- 100 95-gallon recycling carts, serial numbers 7251-7350
- 100 95-gallon yard debris carts, serial numbers 4941-4050
- 500 14-gallon recycling bins
- 10 3-yard recycling containers, serial numbers 199348-199352 and 200922-200926
- 5 4-yard recycling containers, serial numbers 199353-199357
- 8 6-yard recycling containers, serial numbers 200689-200693 and 200927-200929

L & M K Enterprises (lessor, applicant) leases commercial machinery and equipment primarily to recycling and garbage collection companies. The applicant leases the claimed containers to Pacific Sanitation, Inc (lessee, operator). The lessee serves 9,645 residential and 819 commercial customers in Marion County. The operator placed the carts and bins with residential customers for accumulating recyclable materials and containers with commercial customers for accumulating corrugated cardboard.

The sole purpose of the claimed facility is to prevent approximately 18 tons of recyclable materials, 197 tons of cardboard and 40 tons of yard debris from entering the solid waste stream each year. The operator sells the material to Marion Resource Recovery Facility or Garten Services, Inc. for a nominal amount and for eventual use as feed stock and secondary fiber.

The EQC issued three certificates to the applicant for equipment leased to the operator and eight certificates to the lessee. The claimed facility is not a replacement of these previously certified facilities.

**Applicant Address**

PO Box 17669  
 Salem, OR 97305-7669

**Facility Address**

Pacific Sanitation, Inc.  
 3475 Blossom Drive NE  
 Salem, OR 97305

<b>7647</b>	Facility Cost		<b>\$10,305</b>
<b>Global Leasing, Inc</b>	Percentage Allocable	X	<b>100%</b>
S Corp 93-1097105610	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$3,607</b>

**Description**

Two 40-yard drop boxes, serial number 15763 & 15764

Global Leasing, Inc (lessor) is an equipment leasing company. The lessor claims recycling two drop boxes leased to Garbarino Disposal & Recycling Service, Inc. (lessee). The lessee uses the carts to collect commingled recycling from Hillsboro residential customers.

The lessee experienced a 7 percent customer growth rate in the last year and now serves 5,000 residential and 500 commercial customers in the cities of Hillsboro, Beaverton, Portland and unincorporated Washington County. The lessee transports the materials to Far West Fibers, SP Recycling and Smurfit for additional sorting and sale as feedstock in manufacturing new products.

The sole purpose of the claimed facility is to remove approximately 1,222 tons of solid waste from landfill disposal each year.

The EQC has issued 26 certificates to the lessor and 4 to the lessee, approving 6 similar boxes. The claimed facility is not a replacement to any previously certified facility.

**Applicant Address**  
PO Box 250  
North Plains, OR 97133

**Facility Address**  
30966 NW Hillcrest St  
North Plains, OR 97133

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
 December 13-14, 2007 EQC Meeting

<b>7648</b>	Facility Cost		<b>\$586,932</b>
<b>High Country Enterprises, LLC</b>	Percentage Allocable	X	<b>100%</b>
LLC 93-1257933	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$205,426</b>

**Description**

8,064 95-gallon roll carts  
 One Autocar truck, Vehicle Identification Number 5VCDC6ME67H203684 customized with an Amrep model AMHASLTPO-19 automated truck body, serial number 203684

High Country Enterprises, LLC is a garbage and recycling hauler that serves 12,987 residential and 1,082 commercial customers.

The company claims roll carts to accumulate commingled recyclable materials from residential customers in the City of Redmond. The company collects and delivers the materials to Mid Oregon Recycling using the claimed recycling truck.

The sole purpose of the claimed carts and truck is to reduce approximately 1,550 tons of recyclable materials from landfill disposal each year.

The Environmental Quality Commission issued four certificates to the applicant at this location. The claimed truck and carts do not replace facilities previously certified although the applicant placed the carts with customers that have previously certified bins now used exclusively to accumulate glass. The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3).

**Applicant Address**

PO Box 504  
 Bend, OR 97709

**Facility Address**

High Country Disposal  
 1090 NE Hemlock Ave  
 Redmond, OR 97756

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
 December 13-14, 2007 EQC Meeting

<b>7649</b> <b>Bend Garbage Company, Inc</b> C Corp 93-0890916	Facility Cost Percentage Allocable X Maximum Percentage X Tax Credit	\$900,824 <b>100%</b> <b>35%</b> <hr/> \$315,288
--	---	---

**Description**

10,716 - 95-gallon roll carts

- One Autocar truck, Vehicle Identification Number 5VCDC6ME27H203682, customized with an Amrep model AMHASLTPO-19 automated truck body, serial number 07294
- One Autocar truck, Vehicle Identification Number 5VCDC6ME47H203683, customized with an Amrep model AMHASLTPO-19 automated truck body, serial number 07305

Bend Garbage Company, Inc. collects garbage and recyclable materials from its 13,052 residential and 1,276 commercial customers, and numerous construction sites located in Deschutes County.

The applicant claims carts placed with residential customers to accumulate recyclable materials. The company collects and delivers the material to Mid Oregon Recycling for additional processing.

The sole purpose of the carts and two trucks is to remove approximately 3,600 tons of recyclable materials each year from the solid waste stream.

The EQC has issued eleven certificates to the applicant certifying a recycling depot, recycling containers and five trucks. The claimed carts and trucks do not replace the previously certified bins or 2003 International Truck that are now used exclusively to accumulate and collect glass. The second truck does not replace a previously certified truck; it is used for the expanded service. The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3).

**Applicant Address**

PO Box 504  
 Bend, OR 97709

**Facility Address**

Bend Garbage & Recycling Company  
 20835 NE Montana Way  
 Bend, OR 97701

<b>7655</b>	Facility Cost		<b>\$11,351</b>
<b>Deschutes Recycling, LLC</b>	Percentage Allocable	X	<b>100%</b>
S Corp 93-1307244	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$3,973</b>

**Description**

One JRB 4.0 cubic yard grapple bucket, unit number 5790

Deschutes Recycling, LLC is a recycling center located at Knott Landfill in Bend, Oregon.

The applicant claims a grapple bucket used to process yard debris into compost.

The sole purpose of the grapple bucket is to produce approximately 18,756 cubic yards of compost each year in a material recovery process.

The applicant accurately subtracted 27 percent of the cost equal to the tonnage of recyclable material sold as hog fuel. The EQC issued two certificates to the applicant. The claimed facility does not replace any previously certified facility. The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3).

**Applicant Address**  
PO Box 504  
Bend, OR 97709

**Facility Address**  
6120 SE 27th Street  
Bend, OR 97702



## References

### ORS 468.155<sup>8</sup>

Such prevention, control or reduction required by this subsection shall be accomplished by the use of a material recovery process which obtains useful material from material that would otherwise be, hazardous waste as defined in ORS 466.005, or used oil as defined in ORS 459A.555. ORS 459.005 provides the following definition of solid waste.

Solid Waste: All useless or discarded putrescible and non-putrescible materials, including but not limited to garbage, rubbish, refuse, ashes, paper and cardboard, sewage sludge, septic tank and cesspool pumpings or other sludge, useless or discarded commercial, industrial, demolition and construction materials, discarded or abandoned vehicles or parts thereof, discarded home and industrial appliances, manure, vegetable or animal solid and semisolid materials, dead animals and infectious waste as defined in ORS 459.386.  
ORS 459.005(24).

### OAR 340-016-0060<sup>9</sup>

(4) Eligible Activities. The facility shall prevent, reduce, control, or eliminate hazardous waste, solid waste and used oil. The facility shall eliminate or obtain useful material from material that would otherwise be solid waste as defined in ORS 459.005, hazardous waste as defined in ORS 466.005, or used oil as defined in ORS 468.850. The facility shall produce an end product of utilization that is an item of real economic value and is competitive with an end product produced in another state. The facility shall produce the end product by mechanical processing, chemical processing; or through the production, processing, pre-segregation, or use of materials which:

- 
- (A) Have useful chemical or physical properties which may be used for the same or other purposes; or
  - (B) May be used in the same kind of application as its prior use without change in identity.

---

<sup>8</sup> Definitions for ORS 468.155 to 468.190 and 468.962

<sup>9</sup> Eligibility

## Nonpoint Source Pollution Controls

### Recommendations and Eligibility Criteria

DEQ recommends the Commission approve \$187,126 in tax credit for two applicants that claim no-till drills for certification as nonpoint source (NPS) pollution controls. Each facility is eligible for a tax credit because it meets the criteria in:

- ORS 468.155 (1)(a)(B), OAR 340-016-0060 (2)(a) and OA041-0006(17) - The sole purpose of each facility is to reduce a substantial quantity of NPS.
- ORS 468.155 (2)(b), OAR 340-016-0060 (4)(h)(B)(i) - Each invested in a method the EQC determined to reduce significant amounts of nonpoint source pollution supported by United States Department of Agriculture or Oregon State University research.
- ORS 468.170 (4)(a) - Each facility satisfies the intents and purposes of ORS chapters 468A and 468B - Air and Water Pollution.
- ORS 468.155(3), ORS 468.170(1) and OAR 340-016-0070 - Facility cost recommended for certification represents the actual pollution control cost of installation and does not exceed the taxpayer's (applicant) own cash investment in the facility.
- ORS 468.190 (3) for facilities that cost less than \$50,001, ORS 468.170(1) and ORS 468.190(1) for facilities that cost over \$50,000 - Each applicant accurately identified and DEQ verified the percentage of the facility cost allocable to air pollution controls.
- ORS 468.173(3)(c) - The maximum tax credit is 35 percent of the applicants submitted their applications between January 1, 2002, and December 31, 2007, and the certified facility is a nonpoint source pollution control.

## Nonpoint Source Pollution Controls

### Recommendations and Eligibility Criteria

DEQ recommends the Commission approve \$187,126 in tax credits to **two** applicants that claim no-till drills for certification as nonpoint source (NPS) pollution control facilities. Each facility is eligible for a tax credit because it meets the criteria in:

- ORS 468.155 (1)(a)(B), OAR 340-016-0060 (2)(a) and OAR 340-041-0006(17) - The sole purpose of each facility is to reduce a substantial quantity of NPS.
- ORS 468.155 (2)(b), OAR 340-016-0060 (4)(h)(B)(i) – Each farm invested in a method the EQC determined to reduce significant amounts of nonpoint source pollution supported by United States Department of Agriculture or Oregon State University research.
- ORS 468.170 (4)(a) - Each facility satisfies the intents and purposes of ORS chapters 468A and 468B - Air and Water Pollution.
- ORS 468.155(3), ORS 468.170(1) and OAR 340-016-0070 - The facility cost recommended for certification represents the actual pollution control cost of the installation and does not exceed the taxpayer's (applicant) own cash investment in the facility.
- ORS 468.190 (3) for facilities that cost less than \$50,001, ORS 468.170(1) and ORS 468.190(1) for facilities that cost over \$50,000 - Each applicant accurately determined and DEQ verified the percentage of the facility cost allocable to air pollution control.
- ORS 468.173(3)(c) - The maximum tax credit is 35 percent because the applicants submitted their applications between January 1, 2002, and December 31, 2008, inclusively, and the certified facility is a nonpoint source pollution control.

## Reviews

<b>7379</b>	Facility Cost		<b>\$489,000</b>
<b>McFarlane's Bark, Inc</b>	Percentage Allocable	X	<b>100%</b>
S Corp 93-0716917	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$171,150</b>

## Description

One – Portable Morbark model 6600 Wood Hog Grinder, serial number BDT03490

McFarlane's Bark, Inc is a processing and retail seller of barkdust, compost and soil amendments.

The company claims a grinder moved to various job sites for clearing land of woody debris. The applicant uses an excavator to load the material into the claimed grinder and to move the ground material to stockpiles and into trucks.

The sole purpose of the grinder is to prevent the open burning of approximately 12,560 tons of woody debris each year. The company either land applies the material or sells it for hog fuel.

The applicant originally applied for a material recovery tax credit claiming the grinder and an excavator. The company did not use the equipment in an eligible material recovery activity. The Department reviewed the application as a wood chipper after the applicant amended the application removing the excavator and its \$173,050 cost.

The EQC has issued one certificate to the applicant but the grinder does not replace a previously certified facility. The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3). The maximum tax credit is 35 percent because the facility is a nonpoint source pollution control.

**Applicant Address**  
13345 SE Johnson Rd  
Milwaukie, OR 97222

**Facility Address**  
Variable job sites

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
December 13-14, 2007 EQC Meeting

<b>7476</b>	Facility Cost		<b>\$45,645</b>
<b>Christensen Farms LLC</b>	Percentage Allocable	X	<b>100%</b>
LLC 205114226	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$15,976</b>

**Description**

One – John Deere, model 1590 No-Till Drill, serial number N0159X720150

The farm grows annual and a three-to-five year perennial grass crop and hazelnuts. The farm grows legumes as a rotational crop to replenish the soil. The no-till drill allows the farm to direct seed and fertilize without any tillage to minimize soil erosion, a source of nonpoint source pollution.

The Yamhill Agricultural Water Quality Area Management Plan (Senate Bill 1010) identified voluntary objectives to reduce erosion and sediment delivery from agricultural land (page 21) and recommended practices such as switching from conventional tillage to no-till (page 28) to achieve this objective. The United States Department of Agriculture’s Natural Resource Conservation Service (USDA NRCS) provided in the letter presented on behalf of Christensen Farms, “NRCS has recognized no-till as a critical management tool in reducing the identified NPS pollution from cropland (sediment and attached nutrients and pesticides) in Oregon (and locally in the Yamhill Basin). The sole purpose of the no-till drill is to reduce a substantial amount of nonpoint source pollution as determined by the USDA NRCS and their conservation partners.

The farm uses the no-till drill 100 percent of the time to reduce nonpoint source pollution. The EQC has not issued any Pollution Control Facilities Tax Credit certificates to the applicant.

**Applicant Address**  
17215 SW Christensen Rd  
McMinnville, OR 97128

**Facility Address**  
Same as applicant address

## References

### ORS 468.155<sup>10</sup>

- (2)(a) As used in ORS 468.155 to 468.190, “pollution control facility” or “facility” includes a nonpoint source pollution control facility.
- (b) As used in this subsection, “nonpoint source pollution control facility” means a facility that the Environmental Quality Commission has identified by rule as reducing or controlling significant amounts of nonpoint source pollution.

### OAR 340-016-0010<sup>11</sup>

Nonpoint Source Pollution means pollution that comes from numerous, diverse, or widely scattered sources of pollution that together have an adverse effect on the environment. The meaning includes:

- (a) The definition provided in OAR 340-041-0006(17); or
- (b) Any sources of air pollution that are:
- (A) Mobile sources that can move on or off roads; or
  - (B) Area sources.

---

<sup>10</sup> Definitions for ORS 468.155 to 468.190 and 468.962

<sup>11</sup> Definitions

**OAR 340-016-0060<sup>12</sup>**

- (4) Eligible Activities. The facility shall prevent, reduce, control, or eliminate: ... (h) Nonpoint Source Pollution. Pursuant to ORS 468.155(2)(b), the EQC has determined that the following facilities reduce or control significant amounts of nonpoint source pollution:
- (A) Any facility that implements a plan, project, or strategy to reduce or control nonpoint source pollution as documented:
    - (i) By one or more partners listed in the Oregon Nonpoint Source Control Program Plan; or
    - (ii) In a federal Clean Air Act State Implementation Plan for Oregon; or
  - (B) Any facility effective in reducing nonpoint source pollution as documented in supporting research by:
    - (i) Oregon State University, Agricultural Experiment Station; or
    - (ii) The United States Department of Agriculture, Agriculture Research Service; or
    - (iii) The Oregon Department of Agriculture; or
  - (C) Wood chippers used to reduce openly burned woody debris; or
  - (D) The retrofit of diesel engines with a diesel emission control device, certified by the U.S. Environmental Protection Agency.

---

<sup>12</sup> Eligibility

## Water Pollution Controls

### Recommendations and Eligibility Criteria

DEQ recommends the Commission approve **\$2,584.380** in tax credits to **twelve** applicants that claim systems (facilities) that reduce water pollution from industrial waste. One review is in short review format and four are in long review format. Each facility is eligible for a tax credit because it meets the criteria in:

- ORS 468.155 (1)(a) and OAR 340-016-0060 (2)(a) - The principal purpose of the facility is to reduce water pollution in response to a DEQ or federal EPA imposed condition or the sole purpose of the facility is to reduce a substantial quantity of water pollution.
- ORS 468.155 (1)(b)(B) – The facility accomplishes the prevention, control or reduction by disposal or elimination of industrial wastewater and the use of a treatment works for industrial waste defined in ORS 468B.005.
- ORS.468.170 (4)(a) - The facility satisfies the intents and purposes of ORS chapter 468B - Water Pollution.
- ORS 468.155(3), ORS 468.170(1) and OAR 340-016-0070 - The facility cost recommended for certification represents the actual pollution control cost of the installation and does not exceed the taxpayer's (applicant) own cash investment in the facility.
- ORS 468.190 (3) for facilities that cost less than \$50,001, ORS 468.170(1) and ORS 468.190(1) for facilities that cost over \$50,000 - The applicant accurately determined and DEQ verified the percentage of the facility cost allocable to water pollution control.
- ORS 468.173(3) - The maximum tax credit is 35 percent because the applicant submitted their applications between January 1, 2002, and December 31, 2008, inclusively, and the facility or the applicant met one of the conditions in the law as identified in the review.



## Reviews

<b>7433</b>	Facility Cost		<b>\$16,674</b>
<b>TDY Industries, Inc</b>	Percentage Allocable	X	<b>100%</b>
C Corp 952316679	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$5,836</b>

## Description

Secondary containment for a hydrofluoric acid tank

TDY produces, refines and forms zirconium and other non-ferrous metals. The company cleans and surface treats strips of zirconium metal with hydrofluoric acid (HF), which is a highly hazardous acid. The storage tank holding the HF requires secondary containment to protect the environment if the tank were to leak.

The company replaced an old containment berm around the HF tank with a 550-gallon containment area. The containment has an interior dimension of five feet six inches by ten feet six inches by 18 inches. The floor is eight inches thick and the walls are six inches thick made with 5000 pounds per square inch concrete and #5 rebar placed 12 inches on center. The company adhered 3/8-inch Anchor Lock to the interior of the containment. Anchor Lock is a weldable poly propylene rated for HF. The containment area has a drainage system to remove any storm water and any HF from a leakage event. The principal purpose of the containment area is to prevent surfacewater and groundwater pollution.

The applicant accurately excluded the cost for demolishing the failing berm. The State of Oregon has issued 141 Pollution Control Facilities Tax Credit Certificates to the applicant and 133 to this location. The state did not certify the replaced containment berm. The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3).

**Applicant Address**  
PO Box 460  
Albany, OR 97321

**Facility Address**  
1600 NE Old Salem Rd.  
Albany, OR 97321

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
December 13-14, 2007 EQC Meeting

<b>7526</b>	Facility Cost		<b>\$5,251,558</b>
<b>Interfor Pacific, Inc.</b>	Percentage Allocable	X	<b>100%</b>
C Corp 20-1470301	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$1,838,045</b>

**Description** Excavation, paving and drainage for the log scaling and storage areas, 3 sedimentation basins and 5 oil/water separators

Interfor Pacific, Inc. operates a sawmill in Mollala. The mill purchases, stores, debarks and dimensions logs into lumber. By-products from these operations are hogged bark, sawdust and wood chips. The mill kiln dries the lumber using natural gas fired steam boilers.

At the time Interfor Pacific acquired the site in May 2005, the log yard was unpaved and underlain by approximately 5-10 feet of log yard debris and rock. Runoff contaminated with woody debris in various stages of decomposition flowed to drainage ditches. Total suspended solids in the runoff from the unpaved log yard significantly exceeded the company's storm water permit benchmark.

The claimed facility includes excavation and recycling of approximately 110,000 cubic yards of log-yard debris and rock, installation of sub grade drainage and rock, and paving approximately 12 acres of the log yard. The drainage flows to three sedimentation basins, through five oil/water separators and into two bioswales (not claimed) constructed along the northern and eastern sides of the site. From the northern bioswale, discharge flows east in a drainage ditch (not claimed) and to the Molalla River. From the eastern bioswale, storm water flows east across a grass covered field (owned by Interfor Pacific) prior to discharge from the property.

The primary and most important purpose of the log deck, storage area, sedimentation basins and oil/water separators is to maintain compliance with the applicant's NPDES (National Pollutant Discharge Elimination System) General 1200-Z permit issued by the DEQ. Industrial waste water includes phosphorus, total suspended solids, tannin and lignin, oils and greases, low pH and settleable solids.

Discharge samples taken prior to installing the claimed facility contained average concentrations of 2401 mg/L (milligrams per liter) suspended solids and 16 mg/L oil and grease. Samples taken after construction contained an average of 44 mg/L suspended solids and <2 mg/L oil and grease. The DEQ benchmark concentration for suspended solids is 130 mg/L and 10 mg/L for oil and grease.

Interfor Pacific, Inc. continued...

The State of Oregon has issued three Pollution Control Facilities Tax Credit Certificates to previous owners at this location. The claimed facility is not a replacement of these previously certified facilities. The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3). The maximum tax credit is 35 percent because the applicant submitted the application on June 28, 2007, and the facility is located in Molalla, a designated enterprise zone at the time of certification.

**Applicant Address**  
15555 S Highway 211  
Molalla, OR 97038

**Facility Address**  
Same as applicant address

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
December 13-14, 2007 EQC Meeting

<b>7532</b>	Facility Cost		<b>\$530,083</b>
<b>Carlton Company</b>	Percentage Allocable	X	<b>100%</b>
C Corp 93-12632-17	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$185,529</b>

**Description** Beckart Wastewater Pretreatment System that includes a PLC (Programmable Logic Controller) Batch Filter Press, serial number SN-06015

Carlton Company is located in Milwaukie, Oregon, a designated enterprise zone. The company manufactures metal saw chain parts such as tie straps, rivets, cutters, and drive links. Industrial wastes produced at the site are oils, coolants, solvents, fine metal waste, alkaline detergents, dry acid descalers, and low pH waters.

The company claims a wastewater pretreatment system that includes an equalization tank, a chemical treatment tank, a PLC batch filter press, serial number SN-06015, a filtrate tank, associated plumbing and electrical and a 51 feet by 32 feet building to house the system.

The new system replaces a membrane wastewater treatment system that produced an oily sludge disposed at Arlington landfill as hazardous waste.

Each year, the new system treats approximately 1,386,000 gallons industrial waste. The filter press separates the wastewater from the solids producing a filter cake. The company discharges to the City of Oak Grove sanitary sewer system and reuses 2,000 gallons in the plant. The company disposes of approximately 36 tons of filter cake per year under Special Waste Permit #10425 at the Hillsboro landfill as a non-hazardous material. The system separates and recycles the oil through Onyx Environmental; thereby, reducing 100 percent of total petroleum hydrocarbons (THP) in the filter cake.

The primary and most important purpose of the pretreatment system is to comply with the applicant's Industrial Wastewater Discharge permit #2006-00001. Discharge from the new system consistently achieves pH compliance and 100 percent reduction in sulfuric acid.

The applicant agreed with the Department's subtraction of \$12,091 for cost of the clean-water holding tank and associated building costs. The State of Oregon has not issued any Pollution Control Facilities Tax Credit certificates to the applicant or to this location; therefore the claimed facility is not a replacement facility. The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3).

**Applicant Address**  
3901 SE Naef Road  
Milwaukie, OR 97267

**Facility Address**  
Same as applicant address

Attachment B:

Background and References for Final Certifications  
Water Pollution Controls  
Page 5

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
 December 13-14, 2007 EQC Meeting

<b>7552</b>	Facility Cost		<b>\$67,056</b>
<b>Conrad Forest Products</b>	Percentage Allocable	X	<b>100%</b>
S Corp 93-0747636	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$23,470</b>

**Description** Conrad Forest Products is located in Coos County, an economically distressed area that treats lumber and plywood to prevent infestation, decay and fire. The treatment process involves loading material onto trams or carts to transport it to one of three pressure vessels of aqueous solutions containing copper, chromium, arsenic and zinc. After treating the material, the applicant moves it to a drip pad. Once dry, the applicant moves the material to a packaging area where the applicant wraps the treated material and moves it to a covered storage area.

The applicant claims a wall for an existing dry storage shed. The wall construction is 2"x 6" framing on a metal base between metal columns for structural support. Plywood sheaths the wall, and a sliding door provides access to the product.

The primary and most important purpose of the wall is to prevent leaching of toxic metals (copper, chromium, arsenic and zinc) into storm water discharged to North Slough through the site's storm water outfall, a tributary of Coos Bay. By installing the wall, the applicant has protected about 70 percent of the product at this site from rain water exposure to comply with Schedule A of NPDES (National Pollutant Discharge Elimination System) permit number 101910. The schedule requires the company to complete construction of product storage areas by January 1, 2009.

The State of Oregon has issued four Pollution Control Facilities Tax Credit Certificates to the applicant, two to this location. The claimed facility is not a replacement of these previously certified facilities. The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3).

**Applicant Address**  
 68765 Wildwood Road  
 North Bend, OR 97459

**Facility Address**  
 Same as applicant address

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
December 13-14, 2007 EQC Meeting

<b>7631</b>	Facility Cost		<b>\$1,787</b>
<b>O. L. Contreras, DMD, PC</b>	Percentage Allocable	X	<b>100%</b>
S Corp 93-1098627	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$ 625</b>

**Description** One - REBEC model CatchHg 1000 Amalgam Separator,

O. L. Contreras, DMD, PC operates a dental practice with five chairs that generate amalgam waste particles. The applicant installed a separator to remove the particles.

The sole purpose of the separator is to control a substantial quantity of water pollution from discharge to sanitary sewer. Amalgam contains mercury, an alloy of silver, tin and copper. If the separator did not remove amalgam waste, it could contaminate rivers and streams where fish absorb it. The primary environmental route of human exposure to mercury is from eating contaminated fish.

The EQC has not issued any tax credits to the applicant; therefore, the facility is not a replacement facility.

**Applicant Address**  
36840 Industrial Way, Suite B  
Sandy, OR 97055

**Facility Address**  
Same as applicant address

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
December 13-14, 2007 EQC Meeting

<b>7633</b>	Facility Cost		<b>\$97,529</b>
<b>Truax Corporation</b>	Percentage Allocable	X	<b>100%</b>
S Corp 93-0730691	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$34,135</b>

**Description** EPA Upgrades to Facility Identification Number 4450

Truax Corporation operates retail gasoline stations.

The applicant claims upgrades to station #65 by installing 550 feet of double wall fiberglass product piping, a spill containment basin, line and turbine leak detectors, sumps and monitoring wells.

The principal purpose of the upgrades to meet EPA requirements to detect, deter or prevent spills or unauthorized releases of petroleum products.

The applicant agreed with the Department's subtraction of \$951 from the claimed cost of the piping to represent the equivalent cost of bare steel piping.

The EQC has issued 53 certificates to the applicant and one for installing protected tanks at this location. The claimed facility does not replace a previously certified facility. The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3).

**Applicant Address**  
PO Box 3002  
Corvallis, OR 97339

**Facility Address**  
#65 Roseburg Stephens Shell  
565 NE Stephens  
Roseburg, OR 97470

<b>7646</b>	Facility Cost		<b>\$2,526,189</b>
<b>Tidewater Barge Lines Inc</b>	Percentage Allocable	X	<b>56%</b>
C Corp 93-0278300	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$495,133</b>

**Description**

Double hull and vapor recovery on the The New Vision

Tidewater Holdings, Inc. and Subsidiaries provide tug, barge and marine transportation services on the Columbia and Snake rivers. The company's operations include terminal storage and handling services, marine vessel repair and construction services.

Tidewater Barge Lines, Inc. converted Barge 703, a dual-use petroleum and grain hauling barge, into a double hulled barge (The New Vision) for exclusive hauling of petroleum products according to Elliott Bay Design Group's engineering plans. Sundial Marine Construction and Repair provided labor, material and equipment to convert the single hull to a double hull. Tidewater Barge Lines, Inc. provided labor to weld the new metal bottom, steel framing and new structural bulkheads. The company also installed vapor recovery equipment, high-level alarms and spill response equipment.

The New Vision transports approximately 25,000 barrels of petroleum products. The company installed plate steel and steel beams to create a void between the cargo tanks and water. The barge is 282 feet long, 42 feet at the beam with a depth of 16 feet, 6 inches, to the main deck and 21 feet, 2 inches, to the cargo tank. In the event of a collision or grounding, the double hull provides a buffer to protect the cargo tanks. If the cargo tank were to fail, the secondary hull would contain the petroleum product and prevent it from entering the waterway.

On September 13, 1999, the EQC determined that double hulls on barges have a sole purpose of reducing a substantial quantity of water pollution, and the vapor recovery equipment has the sole purpose of reducing a substantial quantity of air pollution.

The State of Oregon has issued seven certificates to the applicant. The claimed facility is not a replacement of these previously certified facilities. The applicant and Department calculated the percentage of the facility cost allocable to pollution control according to the standard method in OAR 340-016-0075(3). The applicant accurately claimed the percentage of the facility cost allocable to pollution control as 56 percent to represent the portion of tonnage hauled to Oregon ports.



**Tidewater Holdings, Inc continued...**

The maximum tax credit is 35 percent because the applicant voluntarily installed the claimed facility. The Oil Pollution Act of 1990 provides timetables for double-hulling barges that carry petroleum based on tonnage and construction dates. The Act does not require the double hull of Barge 703 until January 1, 2015. OPA-90 (46 U.S.C. 3703a(c)), item 2(a)(3)(b) of Appendix G to Part 157.

**Applicant Address**  
PO Box 1210  
Vancouver, WA 98666

**Facility Address**  
Lower Hayden Island  
6305 NW Old Lower River Road  
Vancouver, WA 98660

<b>7652</b>	Facility Cost		<b>\$ 880</b>
<b>Robert Darke, DDS</b>	Percentage Allocable	X	<b>100%</b>
S Corp 93-1281675	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$ 308</b>

**Description**

One REBEC model Catch 400 amalgam separator, serial number J402292-J30016030-07

Robert Darke, DDS operates a dental practice with three chairs that generate amalgam waste particles. The applicant installed a separator to remove the particles.

The sole purpose of the separator is to prevent a substantial quantity of water pollution from discharge to sanitary sewer. Amalgam contains mercury, an alloy of silver, tin and copper. If the separator did not remove amalgam waste, it could contaminate rivers and streams where fish absorb it. The primary environmental route of human exposure to mercury is from eating contaminated fish.

The EQC has not issued any tax credits to the applicant; therefore, the facility is not a replacement facility.

**Applicant Address**  
19353 Willamette Drive  
West Linn, OR 97068

**Facility Address**  
Same as the applicant's address.

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
December 13-14, 2007 EQC Meeting

<b>7653</b>	Facility Cost		<b>\$1,087</b>
<b>Stacy A. Geisler, DDS, PhD, PC</b>	Percentage Allocable	X	<b>100%</b>
S Corp 20-1391929	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$ 380</b>

**Description**

One – SolmeteX HG5 amalgam separator, serial number 071008719810

Stacy A. Geisler, DDS, PhD, PC operates a dental practice with five chairs that generate amalgam waste particles. The applicant installed a separator to remove the particles.

The sole purpose of the separator is to control a substantial quantity of water pollution from discharge to sanitary sewer. Amalgam contains mercury, an alloy of silver, tin and copper. If the separator did not remove amalgam waste, it could contaminate rivers and streams where fish absorb it. The primary environmental route of human exposure to mercury is from eating contaminated fish.

The EQC has not issued any tax credits to the applicant; therefore, the facility is not a replacement facility.

**Applicant Address**  
16699 Boones Ferry Road, Suite 100  
Lake Oswego, OR 97035

**Facility Address**  
Same as the applicant's address.

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
December 13-14, 2007 EQC Meeting

<b>7654</b>	Facility Cost		<b>\$ 695</b>
<b>Michael C. Gerhards, DDS</b>	Percentage Allocable	X	<b>100%</b>
Sole Proprietor	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$ 243</b>

**Description**

One Ramvac HG5 amalgam separator, serial number RVK-17059

Michael C. Gerhards, DDS operates a dental practice that generates amalgam waste particles. The applicant installed a separator to remove the particles.

The sole purpose of the separator is to control a substantial quantity of water pollution from discharge to sanitary sewer. Amalgam contains mercury, an alloy of silver, tin and copper. If the separator did not remove amalgam waste, it could contaminate rivers and streams where fish absorb it. The primary environmental route of human exposure to mercury is from eating contaminated fish.

The EQC has not issued any tax credits to the applicant; therefore, the facility is not a replacement facility.

**Applicant Address**  
4414 NE Fremont Street  
Portland, OR 97213

**Facility Address**  
Same as the applicant's address.

<b>7658</b>	Facility Cost		<b>\$ 900</b>
<b>Michael VanGordon</b>	Percentage Allocable	X	<b>100%</b>
S Corp 93-1308622	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$ 315</b>

**Description**

One - SolmeteX HG5 amalgam separator, serial number HG5-K-17466

Michael VanGordon, DMD operates a dental practice that generates amalgam waste particles. The applicant installed a separator to remove the particles.

The sole purpose of the separator is to control a substantial quantity of water pollution from discharge to sanitary sewer. Amalgam contains mercury, an alloy of silver, tin and copper. If the separator did not remove amalgam waste, it could contaminate rivers and streams where fish absorb it. The primary environmental route of human exposure to mercury is from eating contaminated fish.

The EQC has not issued any tax credits to the applicant; therefore, the facility is not a replacement facility.

**Applicant Address**  
36200 Pittsburg Road  
St. Helens, OR 97051

**Facility Address**  
Same as the applicant's address.

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
December 13-14, 2007 EQC Meeting

<b>7659</b>	Facility Cost		<b>\$1,029</b>
<b>Eugene K. Robins</b>	Percentage Allocable	X	<b>100%</b>
Sole Proprietor 93-1041202	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$ 360</b>

**Description**

One – SolmeteX HG5 amalgam separator, serial number SC-MBX-6M43855

Eugene K. Robbins, DDS operates a two-chair dental practice that generates amalgam waste particles. The applicant installed a separator to remove the particles.

The sole purpose of the separator is to control a substantial quantity of water pollution from discharge to sanitary sewer. Amalgam contains mercury, an alloy of silver, tin and copper. If the separator did not remove amalgam waste, it could contaminate rivers and streams where fish absorb it. The primary environmental route of human exposure to mercury is from eating contaminated fish.

The EQC has not issued any tax credits to the applicant; therefore, the facility is not a replacement facility.

**Applicant Address**  
635 Wrights Creek  
Ashland, OR 97520

**Facility Address**  
Same as the applicant's address.

## References

### ORS 468.155<sup>13</sup>

(1)(a) As used in ORS 468.155 to 468.190 and 468.962, unless the context requires otherwise, "pollution control facility" or "facility" means any land, structure, building, installation, excavation, machinery, equipment or device, or any addition to, reconstruction of or improvement of, land or an existing structure, building, installation, excavation, machinery, equipment or device reasonably used, erected, constructed or installed by any person if:

(A) The principal purpose of such use, erection, construction or installation is to comply with a requirement imposed by the Department of Environmental Quality, the federal Environmental Protection Agency or regional air pollution authority to prevent, control or reduce...water...pollution...; or

(B) The sole purpose of such use, erection, construction or installation is to prevent, control or reduce a substantial quantity of...water...pollution...

(1)(b) Such prevention, control or reduction required by this subsection shall be accomplished by:... (B) The disposal or elimination of or redesign to eliminate industrial waste and the use of treatment works for industrial waste as defined in ORS 468B.005 ...

ORS 468B.005 provides the following pertinent definitions.

Industrial waste means any liquid, gaseous, radioactive or solid waste substance or a combination thereof resulting from any process of industry, manufacturing, trade or business, or from the development or recovery of any natural resources.

Treatment works means any plant or other works used for the purpose of treating, stabilizing or holding wastes.

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

---

<sup>13</sup> Definitions for ORS 468.155 to 468.190 and 468.962

Water pollution means such alteration of the physical, chemical or biological properties of any waters of the state, including change in temperature, taste, color, turbidity, silt or odor of the waters, or such discharge of any liquid, gaseous, solid, radioactive or other substance into any waters of the state, which will or tends to, either by itself or in connection with any other substance, create a public nuisance or which will or tends to render such waters harmful, detrimental or injurious to public health, safety or welfare, or to domestic, commercial, industrial, agricultural, recreational or other legitimate beneficial uses or to livestock, wildlife, fish or other aquatic life or the habitat thereof.

**OAR 340-016-0060(4)<sup>14</sup>**

Eligible Activities. The facility shall prevent, reduce, control, or eliminate industrial waste. The facility shall dispose of, eliminate or be redesigned to eliminate industrial waste and the use of treatment works for industrial wastewater as defined in ORS 468B.005.

For underground storage tank systems,

(g) Spills or Unauthorized Releases. The facility shall be used to detect, defer or prevent spills or unauthorized releases. This does not include any facility installed, constructed or used for cleanup after a spill or unauthorized release has occurred ...

---

<sup>14</sup> Eligibility



## Attachment C

### Background and Reviews for Wood Chippers

Three taxpayers submitted equipment for certification on the wood chipper tax credit application. The Department asks the Environmental Quality Commission (EQC, Commission) to concur with the analysis that these pieces of equipment qualify as wood chippers. The Commission's concurrence would result in **\$212,020** in tax credits. The Department of Justice Memorandum dated August 14, 2007, Exhibit A to this attachment, outlines the Commission's authority.

All wood chippers certified to date have a feed opening where the operator manually or mechanically inserts the woody debris. Intake drums pull the material into the chipping knives, prior to propelling the chips away from the equipment. Wood chippers usually operate on an integral diesel engine or a power take-off (PTO) from a tractor engine.



### EQC Record

The EQC adopted administrative rules implementing Oregon Revised Statutes 468.155(2) on January 12, 2001. The Commission did not define the term "wood chipper" in rule. In deliberation, the Commission recognized wood chippers:



- Have the goal of reducing open burning.
- Come in all shapes and sizes.
- Would help reduce forest fuel especially in urban/forest interface areas of the state.

On December 14, 2006, the EQC, after no discussion, approved a wood grinder for certification as a wood chipper.

Grinder operators move the equipment to work locations such as construction sites, log yards and forest maintenance areas. The operator feeds woody debris into the grinder and disposes of the ground material as hogged fuel or leaves it at the job site. The Department recommends the approval of another grinder on application number 7379, which can be found in Attachment B, behind the NPS tab.

## DEQ Analysis

The claimed equipment includes two Gyro-Tracs and one RockHound boom cutter/mulcher. Department analysis found the following.

- The main purpose of the equipment is to reduce open burning of woody debris and to help reduce forest fuel.
- Material processed through the claimed equipment looks similar to chips (mulch) processed through previously certified wood chippers except it may contain more grass and leaf debris.
- The claimed equipment processes material externally and previously certified wood chippers process the material internally.
- Material cannot be manually fed into the claimed equipment.
- The claimed equipment requires less manual labor.
- The claimed equipment is very effective in mulching vines, weeds and grasses dissimilar to previously certified wood chippers.

The **Gyro-Trac** model GT-25 uses a 260-horsepower tier III compliant diesel engine, hydraulic pumps and front drum-mounted cutters to chip away at hardwoods and softwoods of almost any size.



The **RockHound** Model 30EX attaches to the boom of an excavator or backhoe. A 90 horse power hydraulic motor direct-drives eighteen knives spiral-mounted on a 30-inch reversible rotation drum. It is capable of cutting and mulching small trees, grass and brush.

### **Recommendations and Eligibility Criteria**

If the Commission concurs with DEQ that the three pieces of equipment qualify as wood chippers, DEQ recommends the Commission certify the qualifying wood chippers as nonpoint source (NPS) pollution control facilities. The equipment is then eligible for the tax credit for meeting the criteria in:

- ORS 468.155 (1)(a)(B), OAR 340-016-0060 (2)(a) and OAR 340-041-0006(17) - The sole purpose of each facility is to reduce a substantial quantity of NPS.
- ORS 468.155 (2)(b), OAR 340-016-0060 (4)(h)(B)(i) – Each applicant invested in a wood chipper the EQC determined to reduce significant amounts of nonpoint source pollution.
- ORS.468.170 (4)(a) - Each facility satisfies the intents and purposes of ORS chapters 468A and 468B - Air and Water Pollution.
- ORS 468.155(3), ORS 468.170(1) and OAR 340-016-0070 - The facility cost on each application represents the actual cost of the installation and does not exceed the taxpayer's (applicant) own cash investment in the facility.
- ORS 468.190 (3) for facilities that cost over \$50,000 - Each applicant accurately determined and DEQ verified the percentage of the facility cost allocable to reducing NPS pollution.
- ORS 468.173(3)(c) - The maximum tax credit is 35 percent because the applicants submitted their applications between January 1, 2002, and December 31, 2008, inclusively, and the certified facilities are nonpoint source pollution control.

**Reviews**

<b>7454</b>	Facility Cost		<b>\$299,750</b>
<b>Brink Bros, Inc</b>	Percentage Allocable	X	<b>100%</b>
C Corp 93-0785037	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$104,913</b>

**Description**

One - Gyro-Trak model GT-25, serial number BCT2506TBA with Toma-AX cutter head, serial number BCT2506TBA

Brink Brothers Inc. provides land clearing and fire suppression services.

The applicant claims a brush cutter to clear land and underbrush. The equipment uses a planar fixed tooth head that rotates at 2,350 RPM and cuts through brush and trees up to 48 inches. The rotating head is mounted on a mulching machine that rides on 6 nylon/polyester tracks. This track system has only 3.5 psi (pounds per square inch) of ground pressure thus the GT-25 does not leave ruts or compress the ground. The company leaves the processed material on the ground.

The applicant accurately subtracted ineligible add-on components. EQC has not issued any certificates to the applicant; therefore, it is not a replacement facility. The percentage of the facility cost allocable to pollution control is 100 percent calculated according to the standard method in OAR 340-016-0075(3). If the equipment qualifies as a wood chipper, Brink Brothers Inc. qualifies for the 35 percent tax credit because the claimed facility is a nonpoint source pollution control.

**Applicant Address**  
83938 Enterprise Rd  
Pleasant Hill, OR 97455

**Facility Address**  
Same as applicant address

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
December 13-14, 2007 EQC Meeting

<b>7567</b>	Facility Cost		<b>\$6,020</b>
<b>Flavis E Johnson Jr</b>	Percentage Allocable	X	<b>100%</b>
Individual	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$2,107</b>

**Description**

One - Rock Hound model 30EX mower, serial number VT073EX-05

Flavis E Johnson Jr. claims a brush cutting attachment for an excavator.

The purpose of the grinder is to cut and mulch under brush on the applicant's 30-acre property. The applicant leaves the material on the ground

The EQC has not issued any tax credits to the applicant; therefore, the equipment is not a replacement to previously certified equipment.

**Applicant Address**  
36669 Camp Creek Road  
Springfield, OR 97478

**Facility Address**  
Same as applicant address

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
 December 13-14, 2007 EQC Meeting

<b>7608</b>	Facility Cost		<b>\$300,000</b>
<b>ECO Clear Inc</b>	Percentage Allocable	X	<b>100%</b>
S Corp 20-8571975	Maximum Percentage	X	<b>35%</b>
	Tax Credit		<b>\$105,000</b>

**Description**

One - Gyro-Trak model GT-25, serial number BCT2506114C with Toma-AX cutter head, serial number 700HF06-2309

ECO Clear, Inc provides land clearing and fire suppression services.

The applicant claims a brush cutter to clear land and underbrush. The equipment uses a planar fixed tooth head that rotates at 2,350 RPM and cuts through brush and trees up to 48 inches. The rotating head is mounted on a mulching machine that rides on 6 nylon/polyester tracks. This track system has only 3.5 psi (pounds per square inch) of ground pressure thus the GT-25 does not leave ruts or compress the ground. The company leaves the processed material on the ground.

EQC has not issued any certificates to the applicant; therefore, the claimed facility is not a replacement facility. The percentage of the facility cost allocable to pollution control is 100 percent calculated according to the standard method in OAR 340-016-0075(3). If the equipment qualifies as a wood chipper, ECO Clear, Inc qualifies for the 35 percent maximum tax credit because the claimed facility is a nonpoint source pollution control.

**Applicant Address**  
 13790 McCaleb Road  
 Monmouth, OR 97361

**Facility Address**  
 Same as applicant address

## References

### **ORS 468.155 Definitions for ORS 468.155 to 468.190.**

(2)(a) As used in ORS 468.155 to 468.190, "pollution control facility" or "facility" includes a nonpoint source pollution control facility.

(b) As used in this subsection, "nonpoint source pollution control facility" means a facility that the Environmental Quality Commission has identified by rule as reducing or controlling significant amounts of nonpoint source pollution.

### **OAR 340-016-0010 Definitions**

The definitions in this rule give meaning to the term or phrase as used in OAR 340-016-0005 through OAR 340-016-0080. ... (8) "Nonpoint Source Pollution" means pollution that comes from numerous, diverse, or widely scattered sources of pollution that together have an adverse effect on the environment. The meaning includes:

- (a) The definition provided in OAR 340-041-0006(17); or
- (b) Any sources of air pollution that are:
  - (A) Mobile sources that can move on or off roads; or
  - (B) Area sources.

### **340-016-0060 Eligibility**

(4) Eligible Activities. The facility shall prevent, reduce, control, or eliminate:

(h) Nonpoint Source Pollution. Pursuant to ORS 468.155(2)(b), the EQC has determined that the following facilities reduce, or control significant amounts of nonpoint source pollution:

(A) Any facility that implements a plan, project, or strategy to reduce or control nonpoint source pollution as documented:

(i) By one or more partners listed in the Oregon Nonpoint Source Control Program Plan; or

(ii) In a Federal Clean Air Act State Implementation Plan for Oregon; or

(B) Any facility effective in reducing nonpoint source pollution as documented in supporting research by:

(i) Oregon State University, Agricultural Experiment Station; or

(ii) The United States Department of Agriculture, Agriculture Research Service; or

(iii) The Oregon Department of Agriculture; or

(C) Wood chippers used to reduce openly burned woody debris; or

(D) The retrofit of diesel engines with a diesel emission control device, certified by the U.S. Environmental Protection Agency.

ARDY MYERS  
Attorney General




PETER D. SHEPHERD  
Deputy Attorney General

DEPARTMENT OF JUSTICE  
GENERAL COUNSEL DIVISION

MEMORANDUM

DATE: August 14, 2007

TO: Maggie Vandehey, Tax Credit Coordinator  
Department of Environmental Quality

FROM: Larry Knudsen, Assistant Attorney General  
Natural Resources Section 

SUBJECT: Heavy Duty Mulchers

You have asked whether certain heavy duty mulching equipment qualifies as a "non-point source pollution control facility" for purposes of ORS 468.155(2). That provision of the pollution control facilities tax credit laws allows the Environmental Quality Commission to identify by rule facilities that reduce or control significant amounts of nonpoint source pollution and thus qualify for certification. The EQC has implemented this provision by adopting OAR-340-016-0060(4)(h)(C) which identifies "wood chippers used to reduce openly burned woody debris."

The heavy duty mulchers at issue are large, typically track-driven pieces of equipment that mulch and spread brush, trees, slash and stumps in one operation. The heavy duty mulchers at issue use a large (over five feet long) rotating cutting or planer head attached to the front of the equipment to chip and grind trees, brush and wood waste in the path of the equipment. To date, DEQ has received inquiries relating to heavy duty mulchers manufactured under the name GyroTrac. (Typical wood chippers use metal knives attached to an internal drum or disk and the woody debris is fed into the machine through some type of chute or conveyor.)

The Commission's pollution control tax credit rules define nonpoint source pollution<sup>1</sup>, but not the term wood chipper. It is likely, however, that the Commission did not envision the heavy duty mulchers at issue when the rule was adopted but the Department's staff report

<sup>1</sup> OAR 340-016-0010(8) states: "Nonpoint Source Pollution" means pollution that comes from numerous, diverse, or widely scattered sources of pollution that together have an adverse effect on the environment. The meaning includes: ...

(b) Any sources of air pollution that are:

(A) Mobile sources that can move on or off roads...."



Maggie Vandehey  
August 14, 2007  
Page 2

recommending rule adoption does not address this issue. These machines are mechanically different and appear to perform somewhat different functions than the machines that we commonly think of as wood chippers. The machines are also larger and more expensive, but I don't think the size or cost itself would be determinative. In a subsequent rule making the Commission delegated approval authority for chippers to the Department, but only if the cost of the equipment was less than \$50,000. OAR 340-016-0009(1)(b). There is some evidence that the Commission recognized that some qualified chippers would be larger and more expensive than those commonly observed.

Ultimately, it is up to the Commission to determine whether it thinks these machines are properly considered to be wood chippers. Further, a reviewing court is likely to give considerable weight to the Commission's reading of its own rule. In legal terms the word "wood chipper" is likely to be viewed as an "inexact term."<sup>2</sup> When reviewing the Commission's interpretation of an inexact term the courts will look to see whether the interpretation is consistent with legislative intent in authorizing tax credits for nonpoint source facilities. See generally, *Vickers/Nelson and Assoc. v. Env. Quality Comm.*, 209 Or. App 179, 184 (2006) (and authorities cited there). So long as the Commission's interpretation is not implausible or inconsistent with the wording, it should be upheld. *ONRC Action v. Columbia Plywood, Inc.*, 332 OR 216, 221 (2001).

In sum, I think reasonable arguments can be made to include or exclude this type of equipment from the definition of wood chipper and any reasoned decision by the Commission is likely to be upheld. In making a decision, however, the Commission needs to be mindful that it will be setting a precedent for other types of equipment that might have multiple functions including some that include or are quite similar to wood chippers. Once such a precedent is established, the Commission will need to follow it in future cases unless it both articulates a reason for changing course and provides the tax credit applicant with an opportunity to contest the new interpretations. ORS 183.484(5)(b).

GENU7316

---

<sup>2</sup> Generally, exact terms are limited to things like 21 years of age or 1 year.

## Attachment D Certificate Administration

Six taxpayers notified the Department of status changes involving their Pollution Control Tax Credit Certificates. The Department recommends the Commission take the following actions.

Action	Cert. #	Background
Reinstate	10867	T & P Farms, LLC PO Box 9068 Brooks, OR 97305

An April 2007 fire destroyed T & P Farms' 50'x 150' x 22' straw storage building before the end of its useful life. The building had a 500-ton storage capacity.

The applicant notified the Department the farm no longer used the building for its pollution control purpose. Accordingly, on June 22, 2007, the EQC revoked certificate number 10867 originally certified on December 10, 2004.

The farm completed constructing a larger building on August 14, 2007, and claimed a tax credit for additional storage capacity on application number 7601. The review for the building and allocation of building cost for storage above the original 500-ton capacity can be found in Attachment B, behind the Alt. FB tab. The applicant accurately subtracted the portion of the building cost associated with the original building's storage capacity.

According to ORS 468.155(3)(e)(B), the applicant is eligible for the remaining tax credit issued to the original facility. ORS 468.185(5) authorizes the EQC to reinstate the revoked certificate that provided a \$25,965 tax credit shown in the following calculation.

<u>Certified</u>	
Facility Cost	\$ 74,185
% Allocable	X 100%
	<u>\$ 74,185</u>
Maximum %	X 35%
Tax Credit	<u>\$ 25,965</u>

Revoke	4527	Weyerhaeuser Company 195 N Bertelson Road Eugene, OR 97402-5311
--------	------	---

On April 2, 2006, the company ceased using the Geoenergy GeoTherm RTO as certified.

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
 December 13-14, 2007 EQC Meeting

Action	Cert. #	Background
Revoke	10403	Weyerhaeuser Company
	10673	419 South 28th Street Springfield, OR 97477
		On October 23, 2007, the company sold the facility that included the certified GeoTherm Regenerative Thermal Oxidizer.
	10474	Weyerhaeuser Company 50 North Danebo Avenue Eugene, OR 97402
		On July 31, 2006, the company sold the facility that included the certified Regenerative Thermal Oxidizer/Regenerative Catalytic Oxidizer (RTO/RCO), a press enclosure and two baghouses.
	10495	Cottage Grove Garbage Service, Inc. 77932 Highway 99 South Cottage Grove, OR 97424
		On May 16, 2006, Cottage Grove Garbage Service, Inc. removed the truck and trailer from its material recovery purpose.

**Transfer** ORS 468.155(3)(e)(B) provides that the remainder of the tax credit certified to the original facility is available to a new facility if the certificate holder replaces all or part of a certified facility before the end of the facility's useful life.

10176 From: 50% Fessler Family LLC, 25% Thomas Fessler, 25% Debra Fessler  
 To: Fessler Family LLC

On November 21, 2006, Thomas Fessler and Debra Fessler sold their 50 percent share of the 100' x 330' straw storage building certified on December 13, 2002, to Fessler Family LLC.

4073 From: Pendleton Sanitary Service, Inc.  
 4588 To: William C McHenry 29.49%  
 4589 Susan E McHenry 25.49%  
 4590 Michael R McHenry 49.02%

11291  
 11292 The Internal Revenue Service approved Pendleton Sanitary Service, Inc.'s Subchapter S Corporation status on July 1, 2007. The company requests certificate transfers to the shareholders.

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
December 13-14, 2007 EQC Meeting

Action	Cert. #	Background
Transfer	4025	From: G-P Resins Inc. To: G-P Chemical Equity LLC
	4072	From: Georgia-Pacific Corporation
	4094	To: G-P Toledo LLC
	4095	
	4791	
	4792	
	4793	
	10361	From: G-P Resins Inc.
	10674	To: G-P Chemicals LLC
	10794	From: Georgia-Pacific Corporation To: G-P Chemicals LLC

On December 23, 2006, Koch Industries, Inc. acquired Georgia-Pacific Corporation and its subsidiaries and on December 31, 2006, reorganized the businesses by functional and product grouping.

## Certificate Administration References

### 315.304 Pollution control facilities.

(8) Upon any sale, exchange or other disposition of a facility, notice thereof shall be given to the Environmental Quality Commission who shall revoke the certification covering such facility as of the date of such disposition. Notwithstanding ORS 468.170 (4)(c), the transferee may apply for a new certificate under ORS 468.170, but the tax credit available to such transferee shall be limited to the amount of credit not claimed by the transferor. The sale, exchange or other disposition of shares in an S corporation as defined in section 1361 of the Internal Revenue Code or of a partner's interest in a partnership shall not be deemed a sale, exchange or other disposition of a facility for purposes of this subsection.

### ORS 468.155 (e)(B)

(e) Replacement or reconstruction of all or a part of any facility for which a pollution control facility certificate has previously been issued under ORS 468.170, except:

...

(B) If a facility is replaced or reconstructed before the end of its useful life then the facility may be eligible for the remainder of the tax credit certified to the original facility;

### 468.185 Procedure to revoke certification; reinstatement.

- (1) Pursuant to the procedures for a contested case under ORS chapter 183, the Environmental Quality Commission may order the revocation of the certification issued under ORS 468.170 of any pollution control or solid waste, hazardous wastes or used oil facility, if it finds that:
  - (a) The certification was obtained by fraud or misrepresentation; or
  - (b) The holder of the certificate has failed substantially to operate the facility for the purpose of, and to the extent necessary for, preventing, controlling or reducing air, water or noise pollution or solid waste, hazardous wastes or used oil as specified in such certificate.
- (2) As soon as the order of revocation under this section has become final, the commission shall notify the Department of Revenue and the county assessor of the county in which the facility is located of such order.
- (3) If the certification of a pollution control or solid waste, hazardous wastes or used oil facility is ordered revoked pursuant to subsection (1)(a) of this section, all prior tax relief provided to the holder of such certificate by virtue of such certificate shall be forfeited and the Department of Revenue or the proper county officers shall proceed to collect those taxes not paid by the certificate holder as a result of the tax relief provided to the holder under any provision of ORS 307.405 and 315.304.

- (4) Except as provided in subsection (5) of this section, if the certification of a pollution control or solid waste, hazardous wastes or used oil facility is ordered revoked pursuant to subsection (1)(b) of this section, the certificate holder shall be denied any further relief provided under ORS 307.405 or 315.304 in connection with such facility, as the case may be, from and after the date that the order of revocation becomes final.
  
- (5) The commission may reinstate a tax credit certification revoked under subsection (1)(b) of this section if the commission finds the facility has been brought into compliance. If the commission reinstates certification under this subsection, the commission shall notify the Department of Revenue or the county assessor of the county in which the facility is located that the tax credit certification is reinstated for the remaining period of the tax credit, less the period of revocation as determined by the commission. [Formerly 449.645; 1975 c.496 §7; 1977 c.795 §7; 1979 c.802 §7; 1987 c.596 §6]

## **Attachment E**

### **Tax Expenditure Liability Report**

When the Environmental Quality Commission issues a Pollution Control Facilities Tax Credit (PCTC) Certificate, the State of Oregon incurs a tax expenditure liability.

The Tax Expenditure Liability Report shows the maximum potential fiscal impact of the EQC's certification of:

- Facilities presented in this staff report,
- Facilities certified in the 2005-07 biennium and
- Wood chipper certifications sub-delegated to the Department.

The amount listed under each year is the maximum potential credit that taxpayers with certificates may use to reduce their Oregon taxes in any one year. This annual limitation is equal to the tax credit divided by the remaining useful life of the facility but no more than ten years. The remaining useful life is the useful life of the facility less the expired period between the date the applicant placed the facility into operation and the Commission approved certification.

# Attachment E

## Tax Expenditure Liability Report

App #	Tax Credit	Placed in Operation	Remaining		2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
			UL	UL										
7379	\$ 171,150	2006	10	9	\$ 19,017	\$ 19,017	\$ 19,017	\$ 19,017	\$ 19,017	\$ 19,017	\$ 19,017	\$ 19,017	\$ 19,014	0
7394	44,613	2006	10	9	4,957	4,957	4,957	4,957	4,957	4,957	4,957	4,957	4,957	0
7417	18,744	2006	15	10	1,874	1,874	1,874	1,874	1,874	1,874	1,874	1,874	1,874	1,878
7419	263,075	2006	10	9	29,231	29,231	29,231	29,231	29,231	29,231	29,231	29,231	29,227	0
7420	15,149	2006	15	10	1,515	1,515	1,515	1,515	1,515	1,515	1,515	1,515	1,515	1,514
7422	12,712	2006	15	10	1,271	1,271	1,271	1,271	1,271	1,271	1,271	1,271	1,271	1,273
7423	15,740	2006	15	10	1,574	1,574	1,574	1,574	1,574	1,574	1,574	1,574	1,574	1,574
7424	13,337	2006	15	10	1,334	1,334	1,334	1,334	1,334	1,334	1,334	1,334	1,334	1,331
7425	6,654	2006	15	10	665	665	665	665	665	665	665	665	665	669
7426	8,546	2006	15	10	855	855	855	855	855	855	855	855	855	851
7427	8,546	2006	15	10	855	855	855	855	855	855	855	855	855	851
7433	5,836	2006	10	9	648	648	648	648	648	648	648	648	652	0
7443	147,551	2006	5	4	36,888	36,888	36,888	36,887	0	0	0	0	0	0
7451	34,324	2007	5	5	6,865	6,865	6,865	6,865	6,864	0	0	0	0	0
7454	104,912	2007	5	5	20,982	20,982	20,982	20,982	20,984	0	0	0	0	0
7476	15,976	2006	7	6	2,663	2,663	2,663	2,663	2,663	2,661	0	0	0	0
7478	221,699	2006	20	10	22,170	22,170	22,170	22,170	22,170	22,170	22,170	22,170	22,170	22,169
7493	357,915	2006	10	9	39,768	39,768	39,768	39,768	39,768	39,768	39,768	39,768	39,771	0
7494	219,947	2006	10	9	24,439	24,439	24,439	24,439	24,439	24,439	24,439	24,439	24,435	0
7495	248,841	2006	10	9	27,649	27,649	27,649	27,649	27,649	27,649	27,649	27,649	27,649	0
7496	63,539	2006	7	6	10,590	10,590	10,590	10,590	10,590	10,589	0	0	0	0
7497	20,244	2005	15	10	2,024	2,024	2,024	2,024	2,024	2,024	2,024	2,024	2,024	2,028
7500	2,474	2006	7	6	412	412	412	412	412	414	0	0	0	0
7501	4,123	2006	7	6	687	687	687	687	687	688	0	0	0	0
7503	5,425	2006	7	6	904	904	904	904	904	905	0	0	0	0
7507	584	2007	1	1	584	0	0	0	0	0	0	0	0	0
7513	3,545	2006	7	6	591	591	591	591	591	590	0	0	0	0
7514	5,315	2007	7	7	759	759	759	759	759	759	761	0	0	0
7515	3,798	2007	7	7	543	543	543	543	543	543	540	0	0	0
7516	2,896	2006	7	6	483	483	483	483	483	481	0	0	0	0



# Attachment E

## Tax Expenditure Liability Report

App #	Tax Credit	Placed in Operation	UL	Remaining UL	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
7517	2,896	2006	7	6	483	483	483	483	483	481	0	0	0	0
7518	1,033	2006	7	6	172	172	172	172	172	172	0	0	0	0
7519	5,760	2006	7	6	960	960	960	960	960	960	0	0	0	0
7520	847	2007	7	7	121	121	121	121	121	121	121	0	0	0
7521	1,064	2006	7	6	177	177	177	177	177	179	0	0	0	0
7522	2,479	2007	7	7	354	354	354	354	354	354	355	0	0	0
7523	365,738	2006	10	9	40,638	40,638	40,638	40,638	40,638	40,638	40,638	40,638	40,634	0
7524	130,360	2006	7	6	21,727	21,727	21,727	21,727	21,727	21,725	0	0	0	0
7525	163,812	2006	10	9	18,201	18,201	18,201	18,201	18,201	18,201	18,201	18,201	18,204	0
7526	1,838,045	2006	10	9	204,227	204,227	204,227	204,227	204,227	204,227	204,227	204,227	204,227	0
7527	830,576	2006	10	10	83,085	83,085	83,085	83,085	83,085	83,085	83,085	83,085	83,085	83,085
7532	185,529	2006	10	9	20,614	20,614	20,614	20,614	20,614	20,614	20,614	20,614	20,614	0
7533	5,653	2006	7	6	942	942	942	942	942	943	0	0	0	0
7535	57,967	2007	10	10	5,797	5,797	5,797	5,797	5,797	5,797	5,797	5,797	5,797	5,794
7536	3,569	2007	7	7	510	510	510	510	510	510	509	0	0	0
7537	22,003	2007	7	7	3,143	3,143	3,143	3,143	3,143	3,143	3,145	0	0	0
7543	2,275	2007	2	2	1,138	1,137	0	0	0	0	0	0	0	0
7544	9,771	2007	5	5	1,954	1,954	1,954	1,954	1,955	0	0	0	0	0
7545	7,591	2007	5	5	1,518	1,518	1,518	1,518	1,519	0	0	0	0	0
7546	6,794	2007	7	7	971	971	971	971	971	971	968	0	0	0
7547	46,375	2007	5	5	9,275	9,275	9,275	9,275	9,275	0	0	0	0	0
7552	23,470	2007	10	10	2,347	2,347	2,347	2,347	2,347	2,347	2,347	2,347	2,347	2,347
7554	753	2007	5	5	150	150	150	150	152	0	0	0	0	0
7555	842	2007	5	5	168	168	168	168	170	0	0	0	0	0
7558	15,155	2006	7	6	2,526	2,526	2,526	2,526	2,526	2,525	0	0	0	0
7560	455	2007	1	1	455	0	0	0	0	0	0	0	0	0
7564	13,820	2007	5	5	2,764	2,764	2,764	2,764	2,764	0	0	0	0	0
7565	15,296	2007	7	7	2,185	2,185	2,185	2,185	2,185	2,185	2,186	0	0	0
7566	622	2007	1	1	622	0	0	0	0	0	0	0	0	0
7567	2,107	2007	3	3	702	702	703	0	0	0	0	0	0	0
7568	46,201	2006	5	4	11,550	11,550	11,550	11,551	0	0	0	0	0	0
7571	28,241	2007	5	5	5,648	5,648	5,648	5,648	5,649	0	0	0	0	0

# Attachment E

## Tax Expenditure Liability Report

App #	Tax Credit	Placed in Operation	Remaining		2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
			UL	UL										
7572	28,241	2005	5	3	9,414	9,414	9,413	0	0	0	0	0	0	0
7574	17,798	2007	5	5	3,560	3,560	3,560	3,560	3,558	0	0	0	0	0
7575	61,461	2006	5	4	15,365	15,365	15,365	15,366	0	0	0	0	0	0
7583	45,710	2007	10	10	4,571	4,571	4,571	4,571	4,571	4,571	4,571	4,571	4,571	4,571
7585	26,818	2007	5	5	5,364	5,364	5,364	5,364	5,362	0	0	0	0	0
7587	30,694	2007	25	10	3,069	3,069	3,069	3,069	3,069	3,069	3,069	3,069	3,069	3,073
7592	9,238	2007	20	10	924	924	924	924	924	924	924	924	924	922
7593	60,544	2007	20	10	6,054	6,054	6,054	6,054	6,054	6,054	6,054	6,054	6,054	6,058
7597	4,200	2006	5	4	1,050	1,050	1,050	1,050	0	0	0	0	0	0
7601	16,974	200	20	1	16,974	0	0	0	0	0	0	0	0	0
7604	59,318	2007	5	5	11,864	11,864	11,864	11,864	11,862	0	0	0	0	0
7605	3,607	2007	7	7	515	515	515	515	515	515	517	0	0	0
7606	6,464	2007	7	7	923	923	923	923	923	923	926	0	0	0
7608	105,000	2007	5	5	21,000	21,000	21,000	21,000	21,000	0	0	0	0	0
7630	69,822	2007	10	10	698	698	698	698	698	698	698	698	698	698
7631	625	2007	1	1	625	0	0	0	0	0	0	0	0	0
7632	50,534	2007	5	5	10,107	10,107	10,107	10,107	10,106	0	0	0	0	0
7633	34,135	2007	8	8	4,267	4,267	4,267	4,267	4,267	4,267	4,267	4,266	0	0
7642	41,048	2006	7	6	6,841	6,841	6,841	6,841	6,841	6,843	0	0	0	0
7645	10,730	2007	7	7	1,533	1,533	1,533	1,533	1,533	1,533	1,532	0	0	0
7646	495,133	2007	10	10	49,513	49,513	49,513	49,513	49,513	49,513	49,513	49,513	49,513	49,516
7647	3,607	2007	7	7	515	515	515	515	515	515	0	0	0	0
7648	205,426	2007	5	5	41,085	41,085	41,085	41,085	41,086	0	0	0	0	0
7649	315,288	2007	5	5	63,058	63,058	63,058	63,058	63,056	0	0	0	0	0
7652	308	2007	1	1	308	0	0	0	0	0	0	0	0	0
7653	380	2007	1	1	380	0	0	0	0	0	0	0	0	0
7654	243	2007	1	1	243	0	0	0	0	0	0	0	0	0
7655	3,973	2007	5	5	795	795	795	795	793	0	0	0	0	0
7658	315	2007	1	1	315	0	0	0	0	0	0	0	0	0
7659	360	2007	1	1	360	0	0	0	0	0	0	0	0	0
Dec '07	7,592,303				993,226	972,361	971,226	961,113	896,259	690,104	639,438	627,879	623,610	194,234
June '07	2,065,205				328,872	328,419	298,036	170,478	156,614	131,510	128,840	128,837	63,873	63,873
WC '07-09	222,070				95,200	62,071	51,212	8,105	5,482	0	0	0	0	0
<b>Total</b>	<b>\$9,879,578</b>					<b>\$1,362,851</b>		<b>\$1,139,696</b>		<b>\$821,614</b>		<b>\$756,716</b>		<b>\$258,107</b>
					<b>\$1,417,298</b>		<b>\$1,320,474</b>		<b>\$1,058,355</b>		<b>\$768,278</b>		<b>\$687,483</b>	

# **Attachment F**

## **Certified Wood Chipper Report**

### **June 4, 2007 – November 9, 2007**

On October 4, 2002, the Commission adopted OAR 340-016-0009 to delegate its wood chipper certification authority to the Department. The Commission requested that the Department periodically provide a listing of the wood chipper certifications.

The Department presented the last Certified Wood Chipper Report to the EQC on June 22, 2007. The Department certified **134** wood chippers from the date of the last report to November 9, 2007, for **\$276,680** in tax credits.

## **Reference**

### **OAR 340-016-0009<sup>1</sup>**

For the purpose of subdelegating authority to approve and issue final certification of pollution control facilities under OAR 340-016-0080(2):

- 1) The Environmental Quality Commission authorizes the Director of the Department of Environmental Quality or the Director's delegate to certify wood chippers as provided in OAR 340-016-0060(4)(h)(C) if:
  - a) The Department determines the facility is otherwise eligible under OAR 340-016-0060; and
  - b) The claimed facility cost does not exceed \$50,000 as set forth in OAR 340-016-0075(1).
- 2) The Department may elect to defer certification of any facility to the Environmental Quality Commission.
- 3) If the Department determines the facility cost, the percentage of the facility cost allocable to pollution control, or the applicable percentage under ORS 468.173 is less than the applicant claimed on the application then the Department shall:
  - a) Notify the applicant in writing; and
  - b) Include a concise statement of the reasons for the proposed certification of a lesser amount or percentage; and

---

<sup>1</sup> Certification of wood chippers

Agenda Item G, Action Item: Pollution Control Tax Credit Consideration  
December 13-14, 2007 EQC Meeting

- c) Include a statement advising the applicant of their rights under section (4).
- 4) Applicants that receive a notification under section (3) may elect to defer certification to the Environmental Quality Commission by notifying the Department within 30 days of the notification date.
- 5) The Department shall defer certification to the Environmental Quality Commission according to sections (2) and (4).
- 6) The Director or the Director's delegate shall certify facilities that otherwise qualify under this rule and have not been deferred according to sections (2) or (4).

Adopted 10-4-02; effective 11-01-02

# Attachment F

## Certified Wood Chipper Report

### June 4, 2007 through November 9, 2007

Action Date	App #	Applicant	Claimed	Certified	Difference	% Allocable	Maximum Percent	Tax Credit
04-Jun-07	7359	David C Schulz	5,500	5,000	-500	100%	35%	1,750
04-Jun-07	7411	Robert A Rhoades	1,650	1,650	0	100%	35%	578
04-Jun-07	7412	Phillip D Turcotte Jr	3,000	3,000	0	100%	35%	1,050
04-Jun-07	7413	Bradley L Brim	4,500	4,500	0	100%	35%	1,575
04-Jun-07	7414	Raymond J Rivelli	1,650	1,650	0	100%	35%	578
04-Jun-07	7415	Naomi Kelley	8,459	8,459	0	100%	35%	2,961
04-Jun-07	7416	Paul Matz	1,899	1,899	0	100%	35%	665
04-Jun-07	7421	Walter Lorence	1,750	1,750	0	100%	35%	613
04-Jun-07	7428	Jensen's Tree Service, Inc	37,500	37,500	0	100%	35%	13,125
04-Jun-07	7429	Jensen's Tree Service, Inc	37,500	37,500	0	100%	35%	13,125
04-Jun-07	7430	Dale Robert Barkdull	2,695	2,695	0	100%	35%	943
04-Jun-07	7431	Joan Moore	2,700	2,700	0	100%	35%	945
04-Jun-07	7432	Curtis W Grant	10,000	10,000	0	100%	35%	3,500
04-Jun-07	7436	C Frank McNatt	2,800	2,800	0	100%	35%	980
04-Jun-07	7437	Ken & Bennett Johnson	2,750	2,750	0	100%	35%	963
04-Jun-07	7438	David Bradburn	1,349	1,349	0	100%	35%	472
04-Jun-07	7439	Mt Vernon Ranch, LLC	24,375	24,375	0	100%	35%	8,531
04-Jun-07	7440	Robert M Harsany	2,999	2,999	0	100%	35%	1,050
04-Jun-07	7444	Jim Zottola	1,399	1,399	0	100%	35%	490
04-Jun-07	7445	Alexandra C Dilworth	2,640	2,640	0	100%	35%	924
04-Jun-07	7448	Melvin Milani, Lillian Milani	2,000	2,000	0	100%	35%	700
04-Jun-07	7449	Goshen, Inc	15,000	15,000	0	100%	35%	5,250
04-Jun-07	7450	Heidi Van Baalen	1,230	1,230	0	100%	35%	431
04-Jun-07	7455	Nikifer A Semerikov	3,950	3,950	0	100%	35%	1,383
04-Jun-07	7456	Gary L Baldrige	1,428	1,428	0	100%	35%	500
04-Jun-07	7457	Tom Guiney	1,756	1,756	0	100%	35%	615
04-Jun-07	7458	T K Adams	600	600	0	100%	35%	210
04-Jun-07	7459	Peter J Diamond	2,248	2,248	0	100%	35%	787
04-Jun-07	7461	Dennis L Davis	3,779	3,779	0	100%	35%	1,323
04-Jun-07	7462	John Baxter	2,600	2,600	0	100%	35%	910
04-Jun-07	7463	Timothy J Harrower	1,730	1,730	0	100%	35%	606

# Attachment F

## Certified Wood Chipper Report

### June 4, 2007 through November 9, 2007

Action Date	App #	Applicant	Claimed	Certified	Difference	% Allocable	Maximum Percent	Tax Credit
04-Jun-07	7464	Jay Fuston	1,720	1,720	0	100%	35%	602
04-Jun-07	7465	Richard Bolt	2,349	2,349	0	100%	35%	822
04-Jun-07	7466	Kathy Brewer	680	680	0	100%	35%	238
04-Jun-07	7467	Marsh Hoffman	1,359	1,359	0	100%	35%	476
04-Jun-07	7468	Ronald William Russell	5,006	5,006	0	100%	35%	1,752
04-Jun-07	7469	Harold E Wyman	2,259	2,259	0	100%	35%	791
04-Jun-07	7470	Harold Medler	1,889	1,889	0	100%	35%	661
04-Jun-07	7471	Bruce A Scharen	2,228	2,228	0	100%	35%	780
04-Jun-07	7472	David E Hogue	1,439	1,439	0	100%	35%	504
04-Jun-07	7473	Thomas S Johnson, Lois R Johnson	1,939	1,939	0	100%	35%	679
04-Jun-07	7474	Stanley A Schell	6,000	6,000	0	100%	35%	2,100
04-Jun-07	7475	Jay & Constance Tull	2,140	2,140	0	100%	35%	749
04-Jun-07	7479	Rick G Asche	2,500	2,500	0	100%	35%	875
04-Jun-07	7480	Irwin Hozman	3,779	3,779	0	100%	35%	1,323
04-Jun-07	7481	Gordon D Luther	1,848	1,848	0	100%	35%	647
04-Jun-07	7482	Carol Adams	4,950	4,950	0	100%	35%	1,733
04-Jun-07	7483	James Paul Brown	3,350	3,350	0	100%	35%	1,173
04-Jun-07	7484	Pat & Ken Nye	1,500	1,500	0	100%	35%	525
04-Jun-07	7485	Heather Westing	1,750	1,750	0	100%	35%	613
04-Jun-07	7486	Joseph E Oscilia	3,569	3,569	0	100%	35%	1,249
04-Jun-07	7487	Elvin Frank Mead	3,879	3,879	0	100%	35%	1,358
04-Jun-07	7488	Robert W Whipps	1,665	1,665	0	100%	35%	583
04-Jun-07	7489	Norman Rainwater	1,750	1,750	0	100%	35%	613
04-Jun-07	7490	Andrew G Hoffmann	1,500	1,500	0	100%	35%	525
04-Jun-07	7491	Chuck Thorsell	2,118	2,118	0	100%	35%	741
04-Jun-07	7492	Donald B Young	3,059	3,059	0	100%	35%	1,071
11-Sep-07	7460	Gerald T Fisher	9,000	9,000	0	100%	35%	3,150
11-Sep-07	7502	Treecology, Inc.	6,000	6,000	0	100%	35%	2,100
11-Sep-07	7504	Clifford E Leonard	3,737	3,737	0	100%	35%	1,308
11-Sep-07	7505	Matthew P Doherty	2,418	2,418	0	100%	35%	846
11-Sep-07	7506	Larry J Friar	2,328	2,328	0	100%	35%	815
11-Sep-07	7508	Alder Creek Tree Service	23,770	23,770	0	100%	35%	8,320

**Attachment F**  
**Certified Wood Chipper Report**  
**June 4, 2007 through November 9, 2007**

Action Date	App #	Applicant	Claimed	Certified	Difference	% Allocable	Maximum Percent	Tax Credit
11-Sep-07	7509	Douglas S Rosenberg	25,250	25,250	0	100%	35%	8,838
11-Sep-07	7510	Gingerich Farms Products, Inc.	10,125	10,125	0	100%	35%	3,544
11-Sep-07	7511	Matthew K Steele	10,650	10,650	0	100%	35%	3,728
11-Sep-07	7512	P & S Construction Company, Inc.	15,000	15,000	0	100%	35%	5,250
11-Sep-07	7528	Kenneth J Chamberlain	756	756	0	100%	35%	265
11-Sep-07	7529	Lynn Shanks	680	680	0	100%	35%	238
11-Sep-07	7531	William Leon Pyle	3,400	3,400	0	100%	35%	1,190
11-Sep-07	7534	Robert Stineman	30,000	30,000	0	100%	35%	10,500
11-Sep-07	7540	Allan Lowe	849	849	0	100%	35%	297
11-Sep-07	7541	Donald E Shefcheck	3,779	3,779	0	100%	35%	1,323
11-Sep-07	7542	Summitt Forests Inc.	43,864	43,864	0	100%	35%	15,352
11-Sep-07	7548	John D Gordon	2,256	2,256	0	100%	35%	790
11-Sep-07	7549	Chandler Family Ranch, LLC	2,206	2,187	-19	100%	35%	765
11-Sep-07	7550	Clayton Leigh Gillette	899	899	0	100%	35%	315
11-Sep-07	7551	Michael G Mondazze	1,550	1,550	0	100%	35%	543
11-Sep-07	7553	Richard Curwen	617	617	0	100%	35%	216
11-Sep-07	7556	Merlin J Litster	1,795	1,795	0	100%	35%	628
11-Sep-07	7557	Celia M Mueller	1,680	1,680	0	100%	35%	588
11-Sep-07	7559	Stefan Gala	27,000	26,268	-732	100%	35%	9,194
11-Sep-07	7561	Kathryn J Wallace	650	650	0	100%	35%	228
11-Sep-07	7562	Robert C Miller	2,735	2,735	0	100%	35%	957
11-Sep-07	7563	Tony V Feasel	25,375	25,375	0	100%	35%	8,881
11-Sep-07	7569	Timothy John & Tamara Jean Cooper	1,730	1,730	0	100%	35%	606
11-Sep-07	7576	Jonathan Bakke	16,000	16,000	0	100%	35%	5,600
11-Sep-07	7577	Gary P Gardner	1,750	1,750	0	100%	35%	613
11-Sep-07	7578	Keith W Barnes	1,959	1,959	0	100%	35%	686
11-Sep-07	7579	Michael Walter McGinn	1,699	1,699	0	100%	35%	595
11-Sep-07	7580	Steven Richard Jones	1,750	1,750	0	100%	35%	613
11-Sep-07	7581	Brian Wegner	1,800	1,800	0	100%	35%	630
11-Sep-07	7582	Darrel W Tedisch	2,249	2,249	0	100%	35%	787
26-Nov-07	7441	BBS Holdings, LLC	17,500	17,500	0	100%	35%	6,125

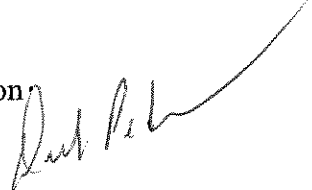
**Attachment F**  
**Certified Wood Chipper Report**  
**June 4, 2007 through November 9, 2007**

Action Date	App #	Applicant	Claimed	Certified	Difference	% Allocable	Maximum Percent	Tax Credit
26-Nov-07	7584	Terry Keeler	2,228	2,228	0	100%	35%	780
26-Nov-07	7586	Steven Walter Johnson	8,250	8,250	0	100%	35%	2,888
26-Nov-07	7588	John A. Barnes	1,700	1,700	0	100%	35%	595
26-Nov-07	7590	Nicholas B. Anderson	3,078	3,078	0	100%	35%	1,077
26-Nov-07	7591	Pam Branagan-Bisset	1,428	1,428	0	100%	35%	500
26-Nov-07	7594	Robert Hottenroth	594	594	0	100%	35%	208
26-Nov-07	7595	Jack Hackett, Wanda Hackett	1,899	1,899	0	100%	35%	665
26-Nov-07	7596	Industrial Hydraulic Service	2,368	2,368	0	100%	35%	829
26-Nov-07	7598	Clayton Young	3,200	3,200	0	100%	35%	1,120
26-Nov-07	7599	Jefferey S. Zens	1,399	1,399	0	100%	35%	490
26-Nov-07	7600	John R. Zounes	1,550	1,550	0	100%	35%	543
26-Nov-07	7609	Melvyn N. Haldors	2,750	2,750	0	100%	35%	963
26-Nov-07	7610	Robert D. Fields	1,820	1,820	0	100%	35%	637
26-Nov-07	7611	Lance and Tareena Cochran	1,750	1,750	0	100%	35%	613
26-Nov-07	7612	George R. and Helen E. Moore	3,750	3,750	0	100%	35%	1,313
26-Nov-07	7613	Mike Jones	21,900	21,900	0	100%	35%	7,665
26-Nov-07	7614	Ronald Russell	4,000	4,000	0	100%	35%	1,400
26-Nov-07	7615	Tom Dew	2,599	2,599	0	100%	35%	910
26-Nov-07	7616	Aron Rothstein	4,189	4,189	0	100%	35%	1,466
26-Nov-07	7617	James D. Scheller	1,400	1,400	0	100%	35%	490
26-Nov-07	7618	L. Ross Babcock III	1,799	1,799	0	100%	35%	630
26-Nov-07	7619	Jason Jay Smith	40,000	40,000	0	100%	35%	14,000
26-Nov-07	7620	Nicholas E. Van Dyke	2,389	2,389	0	100%	35%	836
26-Nov-07	7621	Levi Chamberlain	12,500	12,500	0	100%	35%	4,375
26-Nov-07	7622	David Olsen	1,100	1,100	0	100%	35%	385
26-Nov-07	7623	Don Kania	8,649	8,649	0	100%	35%	3,027
26-Nov-07	7624	BBB Contracting Corp.	29,159	29,159	0	100%	35%	10,206
26-Nov-07	7625	Brent H. Rhule	12,500	12,500	0	100%	35%	4,375
26-Nov-07	7626	Tree Care & Landscapes Unlimited, Inc	39,000	39,000	0	100%	35%	13,650
26-Nov-07	7627	Victoria J. Rigby	1,750	1,750	0	100%	35%	613
26-Nov-07	7628	James R. Dutson	5,728	5,728	0	100%	35%	2,005
26-Nov-07	7629	Edward W. Styskel	2,158	2,179	21	40%	35%	305
26-Nov-07	7634	Jami Thomas	1,650	1,650	0	100%	35%	578
26-Nov-07	7635	Tom Haley	1,164	1,164	0	100%	35%	407



  
**Attachment F**  
**Certified Wood Chipper Report**  
**June 4, 2007 through November 9, 2007**

Action Date	App #	Applicant	Claimed	Certified	Difference	% Allocable	Maximum Percent	Tax Credit
26-Nov-07	7636	William Gingg	29,000	29,000	0	100%	35%	10,150
26-Nov-07	7637	Christopher J McMurtry	1,100	1,100	0	100%	35%	385
26-Nov-07	7638	Jamin Giersbach	1,850	1,850	0	100%	35%	648
26-Nov-07	7639	Patrick G. Mercer	7,468	7,468	0	100%	35%	2,614
26-Nov-07	7640	Vernon Imel	29,000	29,000	0	100%	35%	10,150
26-Nov-07	7641	Vertex Relocation, Inc.	31,900	31,900	0	100%	35%	11,165
<b>134 Applications</b>			<b>Sum</b>	<b>\$793,052</b>	<b>\$791,821</b>	<b>(\$1,231)</b>		<b>\$276,680</b>

**Date:** November 30, 2007  
**To:** Environmental Quality Commission  
**From:** Dick Pedersen, Deputy Director   
**Subject:** Agenda Item H, Informational Item: Align Tank Rules with Federal Regulations, Improve Existing Rules  
December 13-14, 2007 EQC Meeting

**Purpose of Item** Inform the Commission on the proposed amendments to the state's Underground Storage Tank (UST) Compliance Rules (OAR Chapter 340, Division 150).

**Background** The proposed changes protect federal grant funding by aligning DEQ's UST regulations with federal law (Energy Act of 2005), implement changes approved by the 2007 Oregon Legislature (SB 104) and ensure operating facilities have pollution liability insurance to clean up leaks.

**Key Issues** Key issues include:

*Aligning state rules with federal law:*

- Expanding operator training requirements to include an additional class of operator;
- Prohibiting fuel delivery to tanks that are out of compliance; and
- Requiring secondary containment and monitoring for new and replaced tanks and piping.

*Implementing amendments to state law (SB 104) by:*

- Increasing the annual compliance fee from \$85/year per tank to \$135/year per tank;
- Making the expedited enforcement pilot program (i.e., field tickets) permanent, expanding the type of violations that can receive a field ticket, increasing the maximum penalty amount per violation from \$100 to \$500, and the total penalty amount per facility from \$300 to \$1500.

*Improving existing UST regulations by:*

- Requiring operating facilities to renew operating registration certificates annually. Current rules do not require any renewals for

tank permits once issued. This change will ensure operating facilities have pollution liability insurance in place to clean up leaks and to compensate third parties who are affected by the leak.

**Next Steps** Public comment concluded on November 23, 2007. DEQ plans to recommend that the EQC adopt the rules at the February 22, 2008 EQC meeting.

**EQC Involvement** None anticipated at this time.

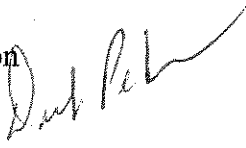
**Available Upon Request** The proposed rule package is available at: <http://www.deq.state.or.us/lq/tanks/ust/index.htm> or upon request by calling Mitch Scheel at 503-229-6704

Approved:

Section: Loretta Picherelli for Mitch Scheel

Division: Loretta Picherelli for Mitch Scheel

Report Prepared By: Mitch Scheel  
Phone: 503-229-6704

**Date:** November 30, 2007  
**To:** Environmental Quality Commission  
**From:** Dick Pedersen, Deputy Director   
**Subject:** Agenda Item I, Action Item: 2008-2009 Rulemaking Agenda,  
December 13-14, 2007 EQC Meeting

**Why this is  
Important**

The Department of Environmental Quality (Department) assembles and reviews annually its biennial rulemaking plans. The Environmental Quality Commission's (Commission) review of this Rules Agenda is an opportunity for the Commission and the Department to identify rulemaking efforts that will benefit from additional Commission involvement and guidance.

**Background**

Administrative rules are the mechanism by which many laws are implemented. The Department proposes rules to address evolving environmental and administrative needs. The Commission reviews the proposed rules and adopts them through formal Commission actions.

The Rules Agenda is the Department prospectus of proposed rules that will be brought to the Commission over the next two years. These proposed rules address a broad range of issues across Department programs. Most of these proposed rules are directly related to the Department's Strategic Directions including those to reduce benzene, promote the use of "clean diesel" and upgrade Oregon's standards for low emission vehicles, all of which will improve Oregon's air quality. A compost rule is proposed that will result in improvements to both water quality and solid waste management. Some proposed rules are to improve funding for Water Quality's permitting program and to refine the State's Revolving Fund program that supports communities across the state. One proposed rule addresses mercury emissions at Portland General Electric's Boardman facility, while another addresses water standards necessary to ensure safe levels of fish consumption. Both of these will result in reductions of toxics in our environment.

This Rules Agenda consists of 28 proposed rulemakings, of which 15 are already under development.

**Key Issues**

The Department develops approximately a dozen rules each year. Questions for the Commission include:

- How much time does the Commission wish to invest in the rulemaking process?
- At what point would the Commission or Commissioners wish to be included in a rulemaking process?
- For controversial or complex rules, does the Commission wish to request additional public hearings and public discussions?
- The Commission is now hearing informational briefings on several rules. Is the current level of participation working for the Commission?

**Department Recommendation**

The Department recommends that the Commission review the newly-updated rulemaking agenda to:

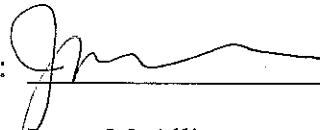
1. Identify which rules Commissioners wish to follow throughout the rulemaking process;
2. Identify which proposed rules should include Commissioner participation during the public comment process;
3. Specify which proposed rules are likely to require advance informational briefings or education for the Commissioners' prior to rule adoption; and
4. Agree on which routine rules, if any, could be processed by the Commission using a consent agenda or other similar approach.

**Attachments**

- A. Short summaries of all Department rulemakings
- B. Spreadsheet, 2008-2009 DEQ Rulemaking Agenda
- C. List of Rulemakings completed in 2007

Approved:

Office of the Director:



Report Prepared By:

Larry McAllister  
Phone: (503) 229-6412

## **Attachment A**

### **Short Summaries of All Department Rulemakings 2008-2009 Rules Agenda**

This document provides a brief summary of each of the rulemaking efforts anticipated during the 2008 and 2009 calendar years. The rules are listed by program or office.

The list includes active rulemaking efforts in progress, as well as rules awaiting discussion and final approval by the agency to start the rulemaking process. For each rule, the summary describes why the rulemaking is necessary.

The numbering on this list of rulemakings corresponds to the spreadsheet in Attachment B.

## Air Quality Program

### 1. **Clean Diesel Fund and Tax Credit Implementation** (in progress)

While diesel engines are renowned for their durability, fuel economy and reliability, scientific evidence shows an increasing number of detrimental health effects associated with diesel emissions. DEQ preliminary estimates rank diesel particulate among the top air toxic risks in Oregon. New engines are getting cleaner, but many older "legacy" engines remain in use. Retrofit technology can lower emissions in the "legacy" diesel fleet, nearly to the level of natural gas-powered engines. However, the costs of the upgrades are prohibitive for many fleet owners.

In response to this risk, Oregon Legislature in 2007 appropriated money for a clean diesel upgrade program and established tax credits for qualifying upgrades, while directing the Environmental Quality Commission to establish standards and procedures to implement these programs. This rulemaking will establish the new program at DEQ.

### 2. **Title V Long Term Funding** (in progress)

This rulemaking is needed to increase Title V fees for 2007 and 2008 by the amounts authorized by the Oregon Legislature through Senate Bill 107. Current fees range from \$3,379 to \$360,000 per pollution source, and are dependent on the level of emissions. The proposed fee increases range from \$1,477 for small facilities to \$85,000 for Oregon's largest pollution source. The rule also makes changes that simplify billing for emission fees as required by SB107.

### 3. **Greenhouse Gas reporting** (*NEW*, in progress)

In July, 2007, Governor Kulongoski asked the Environmental Quality Commission to consider adopting a mandatory greenhouse gas reporting rule. The data is needed to gain a better understanding of the sources of greenhouse gas emissions in Oregon, and to track progress toward meeting greenhouse gas emission reduction goals.

DEQ recently established an advisory committee to discuss issues and make recommendations by mid-December, 2007. The committee is considering a number of issues including which sectors and categories of sources should be required to report; should reporting be based on minimum emissions reporting threshold; which greenhouse gases should be reported; what protocols will be used to calculate emissions; who should the sources report to, and how much it will cost.

Earlier this year, Governor Kulongoski helped form the Western Climate Initiative (WCI), which includes the states of Oregon, Washington, California, Utah, Arizona and New Mexico, as well as the Canadian provinces of British Columbia and Manitoba, and the Mexican state of Sonora. DEQ's greenhouse gas reporting rules will be consistent with those of WCI partner states and provinces.

**4. Matching Air Quality Agricultural Requirements to Federal Regulations (in progress)**

With the exception of Willamette Valley field burning, agriculture has been largely exempt from state air quality regulation in Oregon. However, there is no comparable exemption under the federal Clean Air Act. A coalition of environmental groups (Northwest Environmental Defense Center, Oregon Physicians for Social Responsibility, etc.) petitioned the EPA in 2005 to revoke its approval of Oregon's air quality program due to the agricultural exemption. This rulemaking would allow regulation of agriculture to the extent necessary to comply with the federal Clean Air Act.

The rulemaking is needed to align DEQ rules to the statutes amended by SB235 (ORS 468A.200, 468A.550). This includes revising the exemptions in the rule and revising Title V and New Source Review (NSR) rules as appropriate to address agriculture.

SB 235 also directs the EQC and ODA to develop a Memorandum of Understanding to address the administration and enforcement of air quality laws, and to designate roles and responsibilities for compliance purposes.

**Awaiting Agency Management approval to Start Rulemaking**

**15. 2007 Regional Haze State Implementation Plan (SIP), including Oregon Smoke Management Plan revisions and Best Available Retrofit Technology (BART)**

The Commission adopted a regional haze plan in 2003 as the first step in implementing the federal Regional Haze Rule. This rule requires air quality improvements in "Class I areas" (designated national parks and wilderness areas) over the next 60 years. The rule also requires Oregon and other western states across the country to adopt a comprehensive haze plan in December 2007. Part of the plan will address BART (Best Available Retrofit Technology). While Oregon and other western states are experiencing delays in completing these plans that will push this work into mid-2008, there are no expected consequences for late submittal.

DEQ is evaluating seven industrial facilities for BART controls. PGE Boardman produces the most emissions and is the most complex from both a technical and policy perspective. Because of its complexity, Boardman's BART rule is separated from the other industrial facilities in the Regional Haze plan schedule and will be handled in a separate rulemaking. Besides Boardman, only one other facility is expected to have to install controls under BART. The regional haze plan will also incorporate changes recently made to the Oregon Smoke Management Plan (SMP) by the Oregon Department of Forestry regulating prescribed forestry burning.

Completion of the preliminary work on the regional haze plan and BART are both expected in spring 2008. For Boardman's BART, DEQ will convene a stakeholder group to help assess cost-benefit questions. Informational briefings for the EQC are expected in summer 2008, with completion of this work and EQC review in fall/winter 2008.



**16. PGE Boardman BART (Best Available Retrofit Technology) (NEW)**

In 2008 DEQ will be developing and bringing to the EQC the next chapter in Oregon's Regional Haze Plan. This plan is designed to improve visibility incrementally in Oregon's wilderness areas (and Crater Lake National Park) over the next several decades. The plan will be updated every 5-10 years.

A cornerstone of the 2008 plan is actions for addressing the visibility impacts from certain older industrial sources, including the Boardman coal-fired power plant. This part of the plan is called BART (Best Available Retrofit Technology). Seven Oregon industrial facilities are being evaluated for BART. Initial estimated costs for control technology options at Boardman could be in the range of \$300 million dollars. Because of its technical and policy complexity, Boardman's BART rule will be separated from the Regional Haze plan schedule and handled as a separate rulemaking. DEQ may ask one or more EQC members to participate early in the stakeholder and policy development process for Boardman's BART rule.

In 2008 DEQ will convene a stakeholder group to help assess cost-benefit questions, including the expected costs to PGE and rate payers as well as expected environmental benefit of different control technology options. DEQ will then lead a public rulemaking process and will make its recommendation for emissions control to the EQC. The Department plans to give advance informational briefings for the EQC on both Boardman and the Regional Haze Plan in summer of 2008. We anticipate bringing Boardman's BART rules and the Regional Haze Plan to the EQC in fall/winter 2008.

**17. Benzene Reduction – Statewide requirement for Stage I Vapor Recovery**

The toxic air pollutant benzene is a leading source of risk in Oregon. In some areas it is 20 or more times above the health based benchmark. While a 2006 EPA rule will reduce benzene in gasoline nationally in 2011, there are, and will continue to be unacceptably high health risks from exposure to benzene. A technology for delivery trucks and storage tanks called Stage I Vapor Recovery captures benzene emissions during fuel distribution. This equipment is currently required in the Portland, Salem and Medford-Ashland areas. The Air Quality Division is evaluating the environmental benefit and feasibility of a rule that would require all service stations statewide to install and use Stage I Vapor Recovery, and all distributors to connect to the equipment when delivering gasoline.

**18. New Source Performance Standards/National Emissions Standards for Hazardous Air Pollutants (NSPS/NESHAP)**

This rulemaking will adopt new and amended federal standards, including multi-pollutant standards for municipal waste incinerators, air toxic standards for area sources, and residual risk standards, and remove standards vacated by court action.

This rulemaking will also consider rule changes to improve the Department's implementation of both standards applicable to drycleaners and the new air toxic standards for area sources. Finally, the rulemaking will consider whether more stringent standards are warranted for municipal waste incinerators.

**19. Oregon Low Emission Vehicle Update**

This rulemaking will align Oregon's Low Emission Vehicle rules with California's new emission certification rules, which are currently under revision. The California rules promote zero-emission and extremely low-emission vehicles; new revisions are expected to increase the emphasis on battery-electric and plug-in hybrid vehicles. Federal law requires states that opt-in to California vehicle emission standards to adopt standards identical to California's in order to ease any associated burdens on manufacturers. DEQ expects to begin rulemaking in mid-2008.

**20. New Particulate Standards for PM2.5**

EPA has adopted a new fine particulate standard, and will adopt a follow-up implementation rule in the coming months. The term PM2.5 indicates particulate matter up to 2.5 microns in size. For comparison purposes, a human hair measures about 70 microns in diameter. Particulates of this size can be inhaled deep into the lungs, making them a serious health concern.

This rulemaking will update Oregon's standards in light of the new federal standard. Oregon's standard must be at least as stringent as the federal requirements. The rulemaking will also update New Source Review and other permitting rules to address the new standard.

## Land Quality Program

### Active Rules

#### 5. **Underground Storage Tanks (UST) Rule Revisions** (in progress)

This rulemaking will protect federal grant funding by aligning state UST rules with the federal Energy Policy Act of 2005. Amendments to state law (SB 104) will permanently establish DEQ's expedited enforcement "pilot" program which, through the use of field citations and prompt responses, has successfully reduced the time and resources required for enforcement. In addition, the rule revisions will require operating facilities to verify annually that they have the required financial responsibility in place. The rule amendments make other minor changes to clarify UST regulations.

#### 6. **Compost Rule** (in progress)

The rule changes are needed to update and clarify permitting requirements for composting facilities and to ensure protection of ground and surface waters and public health. This rulemaking amends solid waste composting facility rules, and replaces existing permit requirements with a new permit designed specifically for composting facilities. This effort also clarifies financial assurance requirements and adds several solid waste permit renewal categories. Policy decisions should conclude in 2007 with rule adoption proposed for mid 2008.

### Awaiting Agency Management approval to Start Rulemaking

#### 21. **Beneficial use of Solid Wastes / Requirements for Management of Dredged Sediments**

This rule would establish a beneficial use program to encourage and regulate uses of waste materials in lieu of disposal as solid waste. Adopting a coherent beneficial use program by rule will provide a transparent and consistent process for authorizing appropriate beneficial uses of solid wastes based on specified criteria subject to public review. A more efficient and predictable process should reduce waste and promote sustainability, and make it easier for businesses and individuals to use wastes beneficially.

#### 22. **Oil Spill Contingency Planning and Fees** (NEW)

This rule change will resolve a conflict with ORS 468B.405. Fees for facilities and vessels are set in statute and require legislative approval. The fees are also listed in administrative rule. The fees currently in statute are not the same as the fees listed in OAR 340-141-0010 because the fees were increased during the 2007 legislative session.

This rulemaking effort amends the administrative rule and relies on fees established in statute. Taking the fees out of the administrative rule now will also reduce staff

workload in the future if fees change again. There are no policy issues/implications within this rulemaking

**23. Criminal Background Checks**

This rule is required by HB 2157 (2005 Legislative session) for certain DEQ staff associated with the Laboratory and Umatilla Weapons disposal facility. In October 2006, the Department of Administrative Services and the Department of Justice completed temporary rules for state agencies that DEQ should be able to use for developing required administrative rules for criminal background checks.

**24. Adopt Amendments to Federal Hazardous Waste Regulations (NEW)**

The purpose of the rulemaking is to update Oregon's hazardous waste rules to reflect changes in federal rules from July 2002 through June 2007. This action is required under our commitments to EPA and is a condition of maintaining authorization to operate the hazardous waste program in lieu of EPA. Most of the rules to be adopted are either minor in scope or already in force in Oregon.

**25. All Appropriate Inquiry (AAI)**

Buyers of commercial and industrial properties routinely conduct a pre-purchase investigation to determine whether the property is contaminated. A buyer who performs an appropriate level of investigation or "inquiry," and does not discover contamination, can claim to be an "innocent purchaser" and not liable under Oregon's cleanup law for addressing any historic contamination that is subsequently discovered at the property. The purpose of this proposed rule is to establish an acceptable standard for conducting all-appropriate inquiry for purposes of establishing that the owner did not know and reasonably could not have known that a property was contaminated at the time of acquisition. This is a relatively minor rulemaking, recommended by DEQ's cleanup program external advisory group.

## Water Quality Program

### Active Rules

#### 7. **State Revolving Fund – Authority** (*NEW*, in progress)

This rulemaking will change one subsection of one rule within OAR 340, Division 54. The current rule references a document that contains a now outdated environmental review process used by the program. The revised language will simply reference the new environmental review process, ensuring legal authority to implement the new State Environmental Review Process.

#### 8. **Encouraging Use of Recycled Water** (in progress)

DEQ's Strategic Directions, along with the Governor's Executive Order No. EO 05-04, encourages the recycling of water. Senate Bill 820, passed by the 2003 Oregon Legislature, required DEQ to work with interested parties to develop a report on the opportunities and barriers associated with using recycled water in urban areas. The report made several recommendations, including proposing streamlining DEQ's administrative rules to reflect changes in policies, technologies pertaining to water recycling and additional end uses. In response to the report's recommendations, this rulemaking will clarify requirements for the treatment and use of recycled water and clarify the regulatory process for approval of recycled water projects. The proposed rule is scheduled to be brought to the EQC for adoption in April, 2008.

DEQ continues to work with state agencies, local governments irrigation districts, utility districts, environmental educators, and consultants to improve program policies to encourage water recycling, remove unnecessary regulatory barriers to the use of recycled water, and clarify the regulatory process for approving projects using recycled water.

#### 9. ~~2008 Water Quality Fee Increases~~ (in progress)

The 2008 fee rulemaking proposes three separate water quality permit fee increases and a surcharge based on the Blue Ribbon Committee's 2004 funding recommendations. The 2005 Legislature approved an annual fee increase (not to exceed 3 percent) to address increasing water quality permit program costs. For FY2008-09, DEQ proposes raising permit fees by 3 percent. The 2007 Legislature approved a 5 percent fee increase to support 2.5 new water quality permit program positions. The 3 percent and 5 percent fee increases will be applied to National Pollution Discharge Elimination System (NPDES) and Water Pollution Control Facility (WPCF) permits.

DEQ also proposes increasing NPDES stormwater permit fees by 82 percent (in addition to the 3 percent and 5 percent fee increases) to support 14 new stormwater program positions approved by the 2007 Legislature, to help DEQ improve administration of its stormwater permit program.

Finally, DEQ proposes a surcharge on 47 municipalities with 52 wastewater treatment plant permits. This is a one-time surcharge that will be invoiced in two installments in 2008 and 2009. The surcharge will support two limited-duration positions to perform work outlined in Senate Bill 737, which requires DEQ to create a list of priority persistent bioaccumulative toxics that have a documented effect on human health, wildlife and aquatic life.

**10. Enhanced Onsite Septic System Program Fee Increase (in progress)**

The Onsite System Fee Increase rulemaking proposes two separate water quality permit fee increases, a surcharge, and two housekeeping changes in Division 71. The Water Quality permit program is requesting a 3 percent fee increase to help cover anticipated costs and a 5 percent increase to support 2.5 new positions in the water quality program. This rulemaking will increase fees for Water Pollution Control Facility (WPCF) Onsite permits by that same percentage to cover a portion of these costs in the water quality program. Other water quality permit fees in division 045 are being increased under a separate rulemaking.

This rulemaking will also establish a surcharge on onsite applications. Since 2001, the onsite program has been reduced by 4.60 FTE. This reduction in FTE has resulted in a decline in DEQ's services such as conducting program reviews of the contract county programs. DEQ is proposing a \$20 surcharge on all future onsite applications to allow the Department to add 3.0 FTE in order to conduct regularly scheduled program reviews of contract county programs.

**11. 401 Project Certification Fee Increase (in progress)**

The objective of this rulemaking is to adopt a fee increase for the 401 Certification program for removal-fill projects pursuant to DEQ's 2007-09 Legislatively Adopted Budget. The fees increase will support 0.25 existing FTE which current fees do not fully fund and add 1.0 FTE (two positions) to provide administrative and technical support to the program. The proposed fee changes would increase revenues by approximately \$228,000; if adopted, the fees will be incorporated into OAR 340-048-0055 and will apply to all 401 certification applicants that are required to pay a fee.

**12. Water Quality Standards – Turbidity (in progress)**

The 2007 Legislative session provided the Department with additional state General Funds for water quality standards work. The Department is developing a project plan to address the technical, implementation, and public involvement elements necessary to develop potential revisions to the turbidity standard. The project plan will respond to the issues raised by the Independent Multidisciplinary Science Team (IMST) review of the draft turbidity standard that was released for public comment in October 2005.

**26. 2009 Water Quality Permit Fee Increase Rulemaking (NEW)**

This rulemaking will increase FY10 water quality permit program fee revenue by no more than 3 percent to help cover salary and benefit costs, as authorized by the 2005 Legislature through ORS 468B.051.

DEQ may also consider proposing an electronic reporting (eDMR) fee adjustment for individual NPDES permit holders. The Blue Ribbon Committee had considered using an incentive to push electronic reporting by reflecting the difference in data processing costs of electronic versus manual entry in permit fees. Permit holders would pay less for using electronic reporting, while those using hard copy reporting would pay more.

Awaiting Agency Management approval to Start Rulemaking

**27. Water Quality Toxics Standards – Fish Consumption**

DEQ has committed to reviewing the fish consumption rate and associated human health toxics criteria as part of the triennial review of water quality standards in 2008. The DEQ Director, DEQ Water Quality Administrator and EPA's Region 10 Office have all stated that the fish consumption rate needs to increase. EPA's Region 10 Office has stated that the rate should increase to over 100 grams per day. The EQC has made clear that it expects the rulemaking to consider increasing the fish consumption rate and decreasing the water quality criteria to better protect members of the Confederated Tribes of the Umatilla Indian Reservation (CTUIR) and other Oregonians with fish consumption rates above the national minimum rate.

DEQ, EPA and the CTUIR are convening a series of facilitated workshops to gather information necessary to review the human health criteria with a particular focus on the fish consumption rate. Following the workshops will be a separate formal rulemaking process. Oregon DEQ has legal requirements (OAR 137-001-0005 through 137-001-0060) when initiating a rulemaking to establish an advisory committee, develop a fiscal impact statement, issue public notice, hold public hearings and receive public comment as a part of this process. In addition, establishing a rule implementation plan will be a critical component of this rulemaking.

**28. 2009 State Revolving Fund Program Changes**

This loan program was substantially modified in 2003 to better serve projects focused on non-point sources like irrigation improvements and riparian area restorations. Additional refinements are now needed to address issues that have surfaced during the program's operation in the past five years.

Additionally, this proposed rulemaking will: address legal obstacles to Tribal participation in the program; allow funding point source projects through community loans; allow certain non-point source projects to qualify as water resource activities; align conflicting requirements in agency rules; and clarify specific rule language.

## Office of Compliance and Enforcement

### 13. **Revisions to Oregon's Environmental Enforcement Rules to Provide for Expedited Enforcement** (*NEW*, in progress)

To add to DEQ's existing enforcement tools, the agency is proposing revisions to its enforcement regulations that will allow a quicker and more efficient and transparent alternative to the current formal enforcement process. Individual programs can use expedited enforcement to the extent program-specific statutes and rules allow.

Formal enforcement actions issued under DEQ's existing regulations can be resource-intensive and time consuming. DEQ recognizes that some violations can be adequately addressed (i.e., corrected and deterred) via less involved enforcement actions. Expedited Settlement Offers (ESOs) will allow DEQ to forgo the formal enforcement process in appropriate cases and, as a result, have more resources available to conduct inspections or conduct other compliance activities. Since the recipient of an ESO will have 30 days to accept the Department's offer, ESOs may also result in faster compliance.

## Office of the Director

### 14. **Division 11, Federal Requirements Disclosure** (*NEW*, in progress)

This amendment is required to align DEQ rules with Senate Bill 107 enacted by the 2007 legislature.

The rule would amend OAR 340-011-0029 to ensure that DEQ meets the disclosure requirements in Section 3(1) and (2) of SB 107. While SB 107 only applies to proposed rules that affect Title V sources, the rule change would extend the new disclosure to all DEQ rulemaking that is more stringent than federal. The rule change would incorporate the new disclosures into DEQ's current form "Relationship to Federal Requirements," and streamline the form to make it clearer for the public and easier for DEQ rule writers to use.

Additionally, the rulemaking will modify OAR 340-011-0010 to reflect Section 3(3) to (5) of SB 107 that requires us to grant a hearing before the EQC when requested by a person affected by a more stringent rule under certain circumstances. This provision would only apply to rules that impact Title V sources.




Department of Environmental Quality's 2008-2009 Rules Agenda

		2008												2009												2010					
		Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb			
<b>Active Rules (Start Rulemaking approved by management)</b>																															
1	AQ - Clean Diesel Fund & Tax Credit Implementation									Jun-08																					
2	AQ - Title V, Long-Term Funding									Jun-08																					
3	AQ - Greenhouse Gas Reporting									Jun-08																					
4	AQ - Matching AQ Agricultural Requirements to Fed. Regulations											Aug-08																			
5	LQ - Underground Storage Tanks (UST) Rule Revisions				Feb-08																										
6	LQ - Compost Rule									Jun-08																					
7	WQ - State Revolving Fund - Authority				Feb-08																										
8	WQ - Encouraging Use of Recycled Water							Apr-08																							
9	WQ - 2008 Water Quality Fee Increases									Jun-08																					
10	WQ - Enhanced Onsite Septic System Program Fee Increase									Jun-08																					
11	WQ - 401 Project Certification Fee Increase											Aug-08																			
12	WQ - Water Quality Standards, Turbidity																									Dec-09					
13	OCE - Rules to Provide for Expedited Enforcement													Oct-08																	
14	OD - Division 11, Federal Requirements Disclosure				Feb-08																										
<b>Inactive Rules (awaiting management approval to start rulemaking)</b>																															
15	AQ - 2007 Regional Haze State Implementation Plan (SIP)	Feb-08											Oct-08																		
16	AQ - PGE Boardman BART	Feb-08											Oct-08																		
17	AQ - Benzene Reduction, Statewide Requirement for Stage I Vapor Recovery	Feb-08													Dec-08																
18	AQ - NSPS/NESHAP Adoption by Reference for 2008-2009				Apr-08													Feb-09													
19	AQ - Oregon Low Emission Vehicles - California Update				Apr-08													Dec-09													
20	AQ - New Particulate Standards for PM2.5							Jun-08													Apr-09										
21	LQ - Beneficial Use of Solid Waste / Management of Dredged Sediments	Feb-08													Dec-08																
22	LQ - Oil Spill Contingency Planning and Fees	Feb-08													Dec-08																
23	LQ - Criminal Background Checks				Apr-08													Oct-08													
24	LQ - Adopt Amendments to Federal Hazardous Waste Regulations				Apr-08													Oct-08													
25	LQ - All Appropriate Inquiry (AAI)				Apr-08													Feb-09													
26	WQ - 2009 Water Quality Permit Fee Increase Rulemaking											Oct-08													Aug-09						
27	WQ - Water Quality Toxics Standards – Fish Consumption											Oct-08													Dec-09						
28	WQ - 2009 State Revolving Fund Program Changes																			Jun-09											
		indicates new rule since EQC last reviewed Rules Agenda in Dec, 2006																													

1st date: Start Rulemaking  
2nd date; EQC Meeting

### **Rulemakings Completed in 2007**

1. Portland and Salem Ozone Maintenance Plan (February)
2. Revisions to Oregon's Temperature and Mixing Zone Rules (February)
3. Error Corrections and Clarifications to Water Quality Standards (February)
4. Water Quality Permit Fee Increase and Criteria for Termination of Septic Permits (June)
5. Salem Carbon Monoxide (CO) Limited Maintenance Plan (June)
6. Title V, Temporary Rule (August)
7. Clarifying Proposed Orders in Contested Case Proceedings (October)
8. AQ Permit Streamlining Phase II (October)
9. Asbestos Abatement Notification Fee Increase (October)
10. Air Contaminant Discharge Permit (ACDP) (October)

**Date:** November 30, 2007  
**To:** Environmental Quality Commission  
**From:** Dick Pedersen, Deputy Director   
**Subject:** Agenda Item J, Informational Item: Update on Internal Strategic Directions Measures  
December 13-14, 2007 EQC Meeting

**Why This is Important**

The Department of Environmental Quality's (Department, DEQ) Internal Strategic Directions Measures, in combination with external performance measures, allow the Department to track its progress in achieving its Strategic Directions.

Semi-annual review of the Internal Strategic Directions Measures is part of the Department's efforts to meaningfully involve the Environmental Quality Commission (Commission, EQC) in high-level policy and planning efforts, and constitutes a "best practice" for the EQC.

**Background**

DEQ's performance measurement system includes several Oregon Benchmarks related to the quality of Oregon's air, water and land. Oregon Benchmarks are the outcome indicators that support Oregon Shines, the State's strategic plan for improving the quality of life in Oregon through the provision of quality jobs, safe, caring and engaged communities, and healthy, sustainable surroundings.

The next tier of performance measures in DEQ's measurement system are the Executive Measures. The Executive Measures reflect the highest priorities of the Department. These measures support achievement of our Strategic Directions and provide overall public accountability for DEQ performance. The Executive Measures include our externally-reported Key Performance Measures, which we reported on at the February 2007 Commission meeting, and the Internal Strategic Directions Measures, a set of internal, primarily administrative/programmatic Strategic Direction measures. The internal measures support achievement of our Strategic Directions, including the management and strategic decisions essential to our success.

In February 2007, DEQ provided the EQC with an update on the 2005 Annual Performance Progress Report on the high-level Executive Measures which include the agency's Key Performance Measures and Oregon Benchmarks measures that we report externally to the Oregon legislature, the Department of Administrative Services and the public.

This report provides an update on DEQ's Internal Strategic Directions Measures. Like our externally-reported Executive Measures, the internal measures are tracked on an annual, calendar-year basis. The latest iteration of the Strategic Directions was finalized in September 2006, and some of these internal measures are still under development and evaluation. At the time this report was produced, in August 2007, we had not yet collected a full year of data for the measures we are reporting on today. Thus, this report will provide information on our progress in developing and refining our Internal Strategic Directions Measures, and in achieving the targets established for those measures that we are implementing as of August 2007.

**Attachments**

- A. 2006-2011 Strategic Directions
- B. Table Summary of Internal Strategic Directions Measures Progress Update
- C. Table of Measures we will not be implementing
- D. Table of Measures we are continuing to develop and are not yet implemented
- E. Table of Measures we are implementing and for which a progress update is provided

Approved:

Section:

Division:


Report Prepared By: Karen Whisler  
Phone: 503-229-5082

### DEQ involves Oregonians in solving environmental problems by...

- Encouraging personal actions to protect the environment
- Supporting communities in solving environmental and economic problems

### DEQ measures success involving Oregonians by...

- Reduction of garbage landfilled or incinerated
- Increased collection of household hazardous waste
- Development of new options for managing electronic product waste
- Increased number of Eco-Biz certified businesses
- Community problems solved as part of the Governor's Economic Revitalization Team
- Secured grant funding to support local environmental projects
- Increased education and involvement of diverse populations in protecting health and the environment

### DEQ continues to work closely with its state and local agency partners:

- Human Services - *Drinking water*
- Water Resources - *Water rights and quantity*
- State Lands - *Wetlands management*
- Agriculture - *Water quality management plans*
- Forestry - *Oregon Forest Practices Act*
- Fish & Wildlife - *Fish passage, endangered species, fish recovery planning*
- Watershed Enhancement Board (OWEB) - *Grants to watersheds*
- Lane Regional Air Protection Agency (LRAPA) - *Lane County air quality*
- Tribal Nations
- Economic Revitalization Team (ERT) member agencies - *Transportation, Economic & Community Development, Housing, Land Conservation, Agriculture, State Lands and Consumer & Business Services*



State of Oregon  
Department of  
Environmental  
Quality

**Office of the Director**  
811 SW Sixth Ave.  
Portland, OR 97204  
Phone: (503) 229-5696  
Toll-free (in Oregon):  
(800) 452-4011  
TTY: 711  
[www.deq.state.or.us](http://www.deq.state.or.us)

## Mission

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

## Vision

To work collaboratively with all Oregonians for a healthy, sustainable environment.

## Values

- Environmental results
- Public service
- Partnerships
- Excellence and integrity
- Teamwork
- Employee growth
- Diversity
- Health, safety and wellness
- Economic growth through quality environment



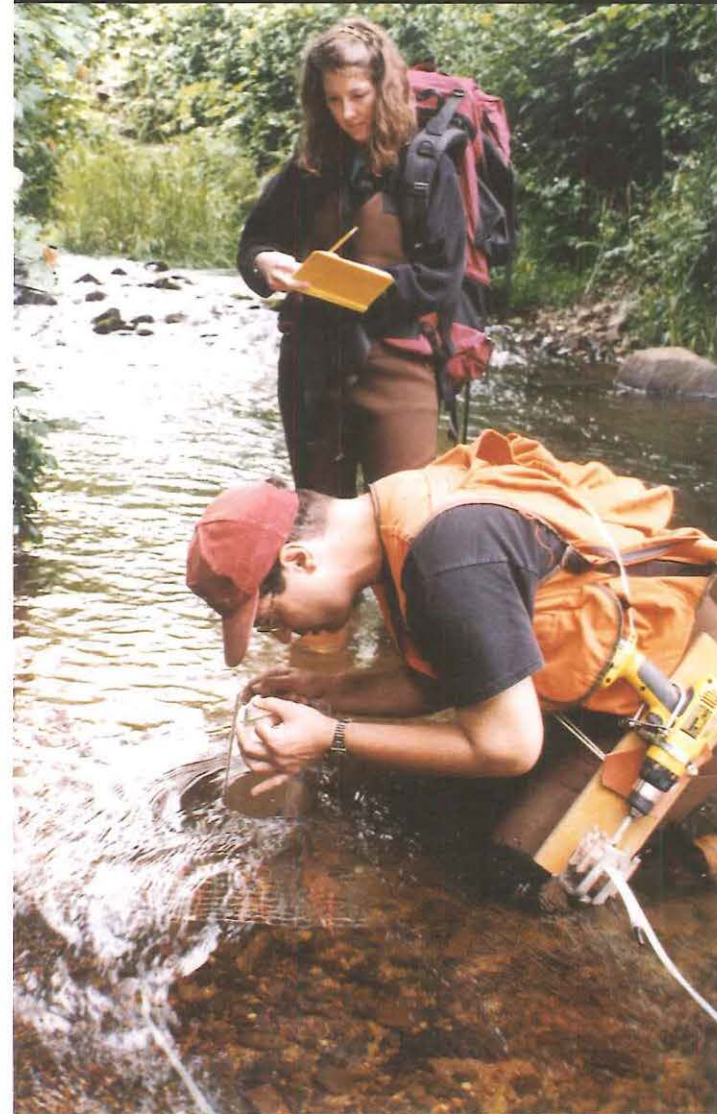
Vehicle Inspector Robert Forthan has provided excellent customer service at DEQ for over 30 years.

# Strategic Directions



State of Oregon  
Department of  
Environmental  
Quality

OREGON DEQ'S STRATEGIC DIRECTIONS: 2006-2011



# DEQ Excellence is...

Promoting sustainable practices

Improving Oregon's air & water

Protecting people & the environment from toxics

Involving Oregonians in solving problems

## DEQ commits to excellence by...

- Delivering outstanding public service and continuously seeking customer feedback to improve its service
- Providing a safe, healthy work climate to support its staff in protecting the environment

## DEQ promotes sustainable practices by...

- Helping to reduce global warming
- Encouraging reuse of wastewater
- Encouraging reinvestment in previously contaminated land
- Practicing sustainable use of resources within DEQ

## DEQ measures success in promoting sustainability by...

- Reduction of greenhouse gas emissions from new cars
- Increased number of electrified truck stops to reduce diesel truck idling
- Reduction of greenhouse gas emissions from solid waste
- Increased number of facilities that reclaim water for reuse
- Increased number of redeveloped Brownfield sites
- Reduction of energy and water use in DEQ offices

*DEQ works with a variety of people, encouraging them to reduce, reuse and recycle.*



## DEQ improves Oregon's air and water by...

- Strengthening connection between public and environmental health
- Cleaning up the Willamette River Basin
- Meeting air quality health standards for fine particulates and smog
- Protecting natural and scenic areas
- Issuing timely and protective permits
- Enforcing environmental laws and regulations

## DEQ measures success protecting air and water by...

- Monitoring changes in water quality
- Reduced number of days Oregonians breathe unhealthy air
- Actions identified and taken by communities to clean up the Willamette River Basin in response to Total Maximum Daily Loads (TMDLs)
- Pollution controls in place to help clean up the Portland Harbor Superfund Site
- Air and water permits issued on time and kept up to date
- Improved visibility in the Columbia Gorge, Crater Lake, and wilderness areas
- Making timely compliance and enforcement actions

## DEQ protects Oregonians and our environment from toxic pollutants by...

- Preventing and reducing toxic chemical releases
- Cleaning up and reducing risks from toxics already in our environment

## DEQ measures success in protection from toxic pollutants by...

- Chemical weapons at Umatilla Army Depot safely destroyed
- Effective response to toxic spills on land and in water
- Reduced risks from exposure to toxics in our air, water and land
- Toxic pollutants reduced or removed from waste stream
- Contaminated and/or hazardous sites cleaned up
- Amount of legacy pesticides managed safely
- Tons of pollution reduced from diesel emissions
- Pounds of mercury removed from the environment
- Number of abandoned mines assessed for cleanup

**Questions?**

**1-800-452-4011**

**[www.deq.state.or.us](http://www.deq.state.or.us)**

*Keeping the state's water clean for many uses is the goal of DEQ's water quality programs.*

*Maintaining clean air is the goal of DEQ's air quality programs.*

**Internal Strategic Directions Measures Progress Update  
 Summary of Implementation  
 August 2007**

<b>Strategic Direction</b>	<b>Measures we are implementing</b>	<b>Measures we are still developing</b>	<b>Measures we will not be implementing</b>
<b>Provide Excellence</b>		<ul style="list-style-type: none"> <li>• Provide a safe, healthy work environment</li> </ul>	
<b>Promote sustainable practices</b>	<ul style="list-style-type: none"> <li>• Percent reduction of greenhouse gas emissions from new passenger vehicles.</li> <li>• Percent of truck stops electrified along I-5, I-84 and US 97 to reduce idling.</li> <li>• Increased number of facilities that reclaim water for reuse</li> <li>• Percent increase use of hybrids/alternative fuel/low emissions vehicles (DEQ)</li> <li>• Reduction in net paper usage (DEQ)</li> </ul>	<ul style="list-style-type: none"> <li>• Increased number of redeveloped Brownfield sites</li> </ul>	<ul style="list-style-type: none"> <li>• Reduction of energy and water use in DEQ offices</li> <li>• Reduction of greenhouse gas emissions from solid waste</li> </ul>
<b>Improve Oregon's air and water</b>	<ul style="list-style-type: none"> <li>• Percent of DMAs in the Willamette Basin with approved Total Maximum Daily Loads implementation plans (TMDLs)</li> <li>• Percent of sites identified as contributing to Portland Harbor contamination that are implementing</li> </ul>	<ul style="list-style-type: none"> <li>• Improving trends in visibility in the Columbia Gorge, Crater Lake, and wilderness areas</li> <li>• Timely compliance and enforcement actions</li> </ul>	

Attachment B, Agenda Item J, Update on Internal Executive Performance Measures  
 December 13-14, 2007 Environmental Quality Commission Meeting

<b>Strategic Direction</b>	<b>Measures we are implementing</b>	<b>Measures we are still developing</b>	<b>Measures we will not be implementing</b>
	source control measures		
<b>Protect Oregonians and the environment from toxics</b>	<ul style="list-style-type: none"> <li>• Number of high priority contaminated sites in which human health risks have been addressed</li> </ul>	<ul style="list-style-type: none"> <li>• Toxic pollutants reduced or removed from waste stream</li> </ul>	<ul style="list-style-type: none"> <li>• Effective response to toxic spills on land and in water</li> <li>• Amount of legacy pesticides managed safely</li> </ul>
<b>Involve Oregonians in environmental problem-solving</b>	<ul style="list-style-type: none"> <li>• Increased number of Eco-Biz certified businesses</li> </ul>	<ul style="list-style-type: none"> <li>• Development of new options for managing electronic product waste</li> <li>• Secured grant funding to support local environmental projects</li> </ul>	<ul style="list-style-type: none"> <li>• Increased collection of household hazardous waste</li> <li>• Increased education and involvement of diverse populations in protecting health and the environment</li> </ul>



## Proposed Internal Strategic Directions Measures that DEQ is not and will not be implementing

Strategic Direction	Measure	Why we are not implementing this measure
<b>Promote sustainable practices</b>		
Practice sustainable use of resources within DEQ	<b>Reduction of energy and water use in DEQ offices</b>	<p>Agency building leases do not currently provide a mechanism for us to measure the reductions in energy and water usage. However, in the HQ remodel we did install low flow toilets, replaced ballasts with more energy efficient ones, etc. So, we can estimate savings, but we cannot quantify reductions. (Since all the DEQ buildings that DEQ is in share with other tenants, we get a share of the water/electric bill by square footage, not actual usage).</p> <p>In addition, DEQ is tracking the following measures related to energy use: (1) Percent increase use of hybrids/alternative fuel/low emissions vehicles. Target: Increase by 10%; and (2) Reduction in net paper usage. Target: 10% annual reduction. These measures are reported on in Table 4, below.</p>
<b>Protect Oregonians and the environment from toxic pollutants</b>		
Cleanup and reduce risks from toxics already in our environment	<b>Spill response</b>	<p>The Agency considered developing a "timeliness" measure of performance in implementing spill response actions, but in reality timeliness is a given - we must, and do, respond to spills in a timely manner. We have not found a measure of our spill response program that is useful as a tool for management or accountability, and that isn't essentially just "bean counting" (e.g. number of spills responded to).</p>

Attachment C, Agenda Item J, Update on Internal Strategic Directions Measures  
 December 13-14, 2007 Environmental Quality Commission Meeting

<p>Cleanup and reduce risks from toxics already in our environment</p>	<p><b>Amount of legacy pesticides managed safely</b></p>	<p>DEQ does not have a mechanism to track pesticide management. Farms, ranches and businesses across the state may store legacy pesticides, but have no requirement to report this information to anyone. The only thing we have quantified in the past is pounds of legacy pesticides collected at various collection events. DEQ has shifted its efforts from organizing and running household collection events to establishing permanent collection facilities. These facilities are not required to report on the quantity of household hazardous waste they receive, so we will not be able to track legacy pesticides collected from them either.</p>
<p><b>Involve Oregonians in solving environmental problems</b></p>		
<p>Encourage personal actions to protect the environment</p>	<p><b>Increased collection of household hazardous waste (HHW)</b></p>	<p>DEQ is no longer focusing our efforts on organizing and running HHW collection events and so this measure is no longer appropriate. Instead, we have used grant funds to support the establishment of permanent facilities across the state that can accept household hazardous waste. These facilities are not required to report how much HHW they receive, so we will not have the data to support this measure.</p>
<p>Encourage personal actions to protect the environment</p>	<p><b>Increased education and involvement of diverse populations in protecting health and the environment</b></p>	<p>DEQ recognizes the need to reach out to different audiences as the State of Oregon grows and diversifies. As resources allow, we will work with organizations that have mailing lists and connections serving diverse populations regarding rule development, permit issuance, assessing sites for possible contamination and many other agency activities.</p> <p>However, this is not an effort that we will attempt to quantify, i.e., by establishing a numerical metric, and therefore does not represent an Executive Measure. While we will not be tracking this as such, we are committed to involving and being responsive to diverse populations to achieve environmental protection goals.</p> <p>One area where we have made a concerted effort involves Tribal nations in Oregon. In 2005-07, DEQ reached out to the leaders and managers of</p>

0  
9

Attachment C, Agenda Item J, Update on Internal Strategic Directions Measures  
December 13-14, 2007 Environmental Quality Commission Meeting

			<p>Oregon's federally-recognized Tribes to explore opportunities for greater partnership and collaboration. DEQ Director Stephanie Hallock sent letters to Tribal Chairs offering to visit with them; subsequently, she and DEQ staff members visited several Tribes. DEQ surveyed tribal managers to seek suggestions on relationship building, and based on tribal comments, DEQ strengthened our procedures for notifying tribes of clean-up activities around the state to ensure protection of cultural resources. At the staff level, DEQ works closely with tribal representatives on a wide variety of water, air and land quality activities, and our interactions with tribal nations have been growing. One exciting example of partnership exists in DEQ's work with the Confederated Tribes of the Umatilla Indian Reservation and EPA to increase the state's "Fish Consumption Rate" to better protect tribal members and other at-risk populations.</p>
--	--	--	---

**Progress for Internal Strategic Directions Measures that DEQ is *continuing to develop***

Strategic Direction	Proposed Measure	Progress in developing/implementing this measure
<p><b>Excellence</b></p> <p>Provide a safe, healthy work climate to support staff in protecting the environment</p>	<p><b>Provide a safe, healthy work climate</b></p>	<p>Providing a safe and healthy workplace environment is fundamental to promoting excellence within the organization. This measure is intended to provide an assessment of the climate in the organization. In the past, DEQ has administered a statewide employee survey every few years, to “take the pulse” of employee job satisfaction. DEQ last administered a state-wide employee survey in 2004.</p> <p>However, feedback from staff received both during the 2004 survey and the prior year’s survey suggested that there is strong sentiment that participation in these surveys does not generate the changes staff want to see. In follow-up to this survey, Administrators took responsibility for engaging staff and managers within their divisions in developing solutions to key concerns. This was empowering.</p> <p>There is value in tracking trends in employee satisfaction. But our current thinking is that there is more value in involving staff in identifying and creating the change they want to see. Recently DEQ’s internal consultant worked with the Water Quality Division with just that perspective in mind. A survey tailored to the needs of the Division was developed, and self-organized teams of managers and staff were formed to address the issues perceived by staff in a process designed to invite full participation and accountability for creating desired changes within the Division.</p> <p>We are continuing to evaluate the relative merits of alternative approaches to assessing employee satisfaction and approaches to implementing changes that will enhance the work environment and employee morale. For example, a shorter, more general survey implemented statewide to track key trends could be administered at less expense, allowing for tailored surveys and change initiatives to be implemented on a Division or Regional basis.</p>

80

Attachment D, Agenda Item J, Update on Internal Strategic Directions Measures  
 December 13-14, 2007 Environmental Quality Commission Meeting

<b>Promote sustainable practices</b>		
Help to reduce global warming	<b>Reduction of greenhouse gas emissions from solid waste</b>	DEQ will be looking at ways to track and report on the reduction of greenhouse gas emissions generated from solid waste disposal over the next several months. We hope to develop a practical and meaningful performance measure to be reported on in 2008.
Encourage reinvestment in previously contaminated land	<b>Increased number of redeveloped Brownfield sites</b>	This is a market driven measure and largely out of DEQ's control. We are still considering whether or not we should just report the number of Brownfield sites redeveloped that DEQ has had a role in, but it's fairly difficult to set any targets or goals that we can actually have control over achieving.
<b>Improve Oregon's air and water</b>		
Protect natural and scenic areas	<b>Improving trends in visibility in the Columbia Gorge, Crater Lake and wilderness areas</b>	<p>We will be able to measure trends in visibility starting in spring 2008. We will track trends in visibility impairment in the Gorge over time through monitoring and provide periodic assessments and updates to the Columbia River Gorge Commission. We are currently developing an air quality model for the Gorge to assess current and future visibility. In August 2008, the Gorge Commission will determine whether our strategy meets the purposes of the Scenic Act, and following that a bi-state Gorge Solutions group will develop and fund strategies to improve air quality. We will then monitor changes in air quality through visibility monitors on the east and west ends of the Gorge.</p> <p>In order to improve visibility, DEQ will work with local government, state and federal agencies, tribes, and other stakeholder groups on targeted emission reduction projects that will contribute to continued visibility improvement.</p>
Enforcing environmental laws and regulations	<b>Timely compliance and enforcement actions</b>	DEQ has identified increased timeliness in issuing formal enforcement actions as a strategic priority for the Office of Compliance and Enforcement (OCE). Issuing civil penalty assessments and orders faster has been a priority for OCE for many years. Over the years OCE has developed templates and policies for use by OCE and regional staff that help streamline work through increasing standardization. During the next

60

Attachment D, Agenda Item J, Update on Internal Strategic Directions Measures  
 December 13-14, 2007 Environmental Quality Commission Meeting

			<p>biennium, we will be working with program staff to develop ticketing programs that might reduce the number of referrals for formal enforcement, thus making more time available for OCE staff to work on other cases.</p> <p>In early 2008, OCE will be the first DEQ program to conduct a process evaluation and improvement session using the Kaizen value-mapping method to identify ways to improve efficiency. Staff from each program in the agency will participate in the session and will gain a better understanding of the entire formal enforcement process – from discovery of the violation by the inspector to resolution of the case by OCE through formal settlement or a contested case hearing. With a deeper understanding of all the factors that influence the speed with which formal enforcement actions can be drafted – many of which are not within control of OCE staff – the agency may be better able to identify a performance measure or measures for assessing the effectiveness of its formal enforcement program.</p>
<p><b>Protect people and the environment from toxics</b></p>			
<p>Prevent and reduce toxic chemical releases</p>	<p><b>Toxic pollutants reduced or removed from waste stream</b></p>		<p>DEQ's Hazardous Waste Technical Assistance program has over the years tracked the quantity of hazardous waste that are safely managed, treated or reduced as a result of our TA program. However, we have not tracked this statewide, and it is difficult to collect the data necessary to ensure reliable reporting within diverse program efforts. We will be evaluating alternatives for measuring the quantity of toxic pollutants reduced or removed from waste streams as a result of TA and other DEQ work, over the next several months.</p>

Attachment D, Agenda Item J, Update on Internal Strategic Directions Measures  
 December 13-14, 2007 Environmental Quality Commission Meeting

<b>Involve Oregonians in solving environmental problems</b>		
Encourage personal actions to protect the environment	<b>Development of new options for managing electronic product waste</b>	In 2007, House Bill 2626 passed, which requires many electronic products to be recycled. Until we begin implementation of this legislation, we cannot determine an appropriate performance measure. However, we can foresee that a more meaningful measure would track the quantity of electronic product waste that is recycled, rather than the Agency's administrative efforts to develop alternatives for managing it.
Support communities in solving environmental and economic problems	<b>Secured grant funding to support local environmental projects</b>	Implementing this measure in a meaningful way will require development of an infrastructure to link the information maintained by project officers in DEQ programs, who oversee local grant-funding community projects, with the grant disbursement information maintained by DEQ's budget office. Further conversation about the level of resources needed to develop and maintain this system should include consideration on the relative merits of tracking this information. Over the next year, DEQ will make a decision on whether and how to move forward on this.

**Progress Update for Internal Strategic Directions Measures *being implemented***

Strategic Direction	Measure	Progress Update
<b>Promote sustainable practices</b>		
Help reduce global warming	<p><b>Percent reduction of greenhouse gas emissions from new passenger vehicles</b></p> <p><b>Target:</b> 22% reduction by 2012; 30% reduction BY 2016, as compared to 2002 vehicles.</p>	Beginning with the 2009 model year, all new vehicles sold in Oregon will have to meet California's emission standards for light and medium duty vehicles. We expect this program will reduce greenhouse gas emissions from vehicles to meet the targets.
Help reduce global warming	<p><b>Percent of truck stops electrified along I-5, I-84 and US 97 to reduce idling</b></p> <p><b>Target:</b> 100% by 2010.</p>	Based on data from the Oregon Department of Transportation Motor Carrier Division, there are 40 truck stops on I-5, I-84 and US 97. Currently, 6 of these truck stops have electrified parking spaces (15%). While it may seem that we are behind schedule to meet the 2010 deadline, the early installations worked through and eliminated many of the barriers, and we expect the remaining stations will be done more quickly.
Encourage reuse of wastewater	<p><b>Increased number of facilities that reclaim water for reuse</b></p> <p><b>Target:</b> 8.7%</p>	<p>DEQ is continuing to work on amending State rules on the use of recycled water. The Water Reuse Task Force was convened in May 2006 to provide recommendations that would encourage the use of recycled water by updating policy and clarifying program requirements. The public comment period for the proposed rulemaking closed August 31, 2007. DEQ plans to present the proposed rules to the Environmental Quality Commission for adoption at the April 2008 meeting. An information item on the proposed rules will also be presented to the Commission in February 2008.</p> <p>148 facilities of 1741 total permitted facilities are producing water for reuse (8.5%).</p>



Attachment E, Agenda Item J, Update on Internal Strategic Directions Measures  
December 13-14, 2007 Environmental Quality Commission Meeting

<p>Practice sustainable use of resources within DEQ</p>	<p><b>Percent increase use of hybrids/alternative fuel/low emissions vehicles</b></p> <p><b>Target:</b> Increase by 10% annually the number of miles driven in hybrids/alternative fuel vehicles</p>	<p>DEQ's operations require reliance on vehicles in order to effectively implement our mission. Activities include conducting field inspections, monitoring, overseeing environmental cleanup work and enforcement inspections. Because of the nature of the work, this is often done in single occupancy vehicles (as opposed to meetings where carpooling is actively encouraged). In order to reduce our ecological footprint and greenhouse gas emissions, DEQ is actively changing the fleet to include more hybrid and compressed natural gas vehicles.</p> <p>In 2005, DEQ staff drove 121,616 miles in hybrids/CNG cars. In 2006, this number rose to 212,441, an increase of 111%! This resulted in greenhouse gas emissions reductions of 74 tons.</p>
<p>Practice sustainable use of resources within DEQ</p>	<p><b>Reduction in net paper usage</b></p> <p><b>Target:</b> 10% annual reduction in paper usage</p>	<p>We have tracked paper usage since 2004, as one of the agency's sustainability measures. Our annual reduction goal is 10%. In 2006, we reduced our paper usage by 22%, from 9,385 reams of paper to 7,325 reams. This was accomplished through a number of mechanisms, including increased reliance on electronic documents, more effective use of our website to distribute information and internal staff training and awareness. DEQ will continue to look at ways to reduce our reliance on paper.</p>
<p><b>Improve Oregon's Air and Water</b></p>		
<p>Clean up the Willamette River Basin</p>	<p><b>Percent of DMAs in the Willamette Basin with approved TMDL implementation plans</b></p> <p><b>Target:</b> 80% by 2007; 100% by 2010</p>	<p>As of December 31, 2006, 0 % of DMAs had approved TMDL implementation plans. DEQ will not meet the 2007 target. The 2007 target was established based on an expectation that the Willamette TMDL would be finalized and approved in 2005. In fact, the TMDL was not finalized and approved until September 2006. The TMDL sets a requirement that TMDL implementation plans be submitted to DEQ for approval 18 months after the TMDL is finalized, and therefore the DMA plans are actually not due to DEQ until the end of March 2008. A more realistic initial target would be 80% by 2008.</p> <p>DEQ's Basin Coordinators assigned to the Willamette have been engaging with the DMAs since the approval of the Willamette TMDL in September 2006, to outline plan requirements and to provide assistance with evaluation of controllable sources of mercury, sediment and bacteria and development of pollution reduction strategies.</p>

Attachment E, Agenda Item J, Update on Internal Strategic Directions Measures  
 December 13-14, 2007 Environmental Quality Commission Meeting

		<p>Some local governments (including small communities and certain counties affected by reduced "timber payments" revenues) have limited staff and resources to develop TMDL implementation plans. DEQ is trying to overcome this impediment by offering guidance, templates and assistance with development of pollution reduction strategies.</p>
<p>Clean up the Willamette River Basin</p>	<p><b>Percent of sites identified as contributing to Portland Harbor contamination that are implementing source control measures</b></p> <p><b>Target:</b> By 2008, 40% of sites identified as contributing to Portland Harbor contamination are implementing source control measures (By 2010, 80% of sites, and by 2012, 95% - 100%)</p>	<p>As Portland Harbor source control efforts progress, our goals gain additional details. These more detailed goals can be found in Section 5 of the bi-yearly <i>Milestone Report for Upland Source Control</i>.</p> <p>Approximately 80 sites were identified as contributors or suspected contributors of contamination to Portland Harbor. 12 of the 80 have been fully evaluated and either determined to not need source control measures or have completed source control measures and are no longer considered a source threatening the river. Currently, 23 of 68 sites identified as contributing to Portland Harbor contamination are implementing source control (34%).</p> <p>Over the next several years, through on-going site discovery efforts, we anticipate the number of sites identified as sources of contamination may exceed 100 sites.</p>
<p>Protect natural and scenic areas</p>	<p><b>Trend in visibility on the clearest and dirtiest days in Crater Lake National Park and other Oregon wilderness areas</b></p> <p><b>Target:</b> No worsening of visibility on the clearest days by 2012, and an improvement in the most severely impaired days</p>	<p>This is a measure of our work on the Regional Haze rule, one of AQ's top priorities. Under this rule, we will be adopting SO<sub>2</sub> and NO<sub>x</sub> controls for the Boardman Coal fired power plant and reducing emissions from up to 9 additional grandfathered sources.</p> <p>The Western Regional Air Partnership (WRAP) has developed an extensive set of tools to support visibility tracking and strategy development for the Regional Haze Plan, including a regional emission inventory and model. The Regional Haze rule requires that we protect visibility on the 20% clearest days and improve visibility on the 20% worst days, and that we demonstrate in our State Implementation Plan (SIP) that we are making reasonable progress in five year increments toward a goal of natural conditions in the year 2064.</p>

		<p>The next SIP revision is scheduled for submission to EPA in early 2008, and will include an extensive demonstration of Oregon's status in meeting these tests.</p>
<p><b>Protect Oregonians and our Environment from Toxic Pollutants</b></p>		
<p>Clean up and reduce risks from toxics already in our environment</p>	<p><b>Number of high priority contaminated sites in which human health risks have been addressed</b></p> <p><b>Target:</b> 80% high priority sites by 2010</p>	<p>Since 1997, the Environmental Cleanup Program has identified 293 high-priority sites. These sites have either impacted groundwater or surface water, or pose a high risk to human health. Of those, 182 sites, or 62%, have had human health concerns addressed or are currently being worked on in the program. Our efforts will be evaluated twice per year to ensure that the 2010 80% goal will be reached.</p>
<p><b>Involve Oregonians in solving environmental problems</b></p>		
<p>Encourage personal actions to protect the environment</p>	<p><b>Number of Oregon communities that have an Eco-Biz Certification program</b></p> <p><b>Target:</b> Introduce Eco-Biz to 1 community / region / year</p>	<p>The Eco-Logical Business (Ecobiz) Program recognizes businesses in Oregon that reach the highest standards in minimizing their environmental impact. This was the first multi-media (air, water, solid waste) certification program in the nation, developed by staff from multiple agencies including DEQ, City of Gresham, City of Portland, City of Troutdale, Clackamas County, Washington County, Metro, Oregon Department of Environmental Quality, and Clean Water Services. The Ecobiz program began certifying businesses in 1999 in the Portland Metro area and Salem, and was expanded statewide in 2003.</p> <p>Currently businesses in the automotive services and landscaping sectors are eligible for certification. These businesses must complete an extensive checklist covering multiple topics including hazardous waste management, spill prevention, recycling, purchasing, employee training and involvement. They must meet all of the legal and program requirements and 80% of the electives in order to become certified. There are 68 automotive businesses and three landscapers certified throughout the state.</p> <p>In 2006 DEQ conducted Ecobiz outreach to businesses in 20 communities in the State, including 1 community in Eastern Region (Bend), 6 Northwest Region communities, and 13 communities in Western Region. DEQ introduces Eco-Biz to businesses in the state in a variety of ways – during an on-site technical assistance visit, through mailings, etc. We don't track our efforts by community per se. This measure will be re-evaluated to determine a target that more appropriately reflects how DEQ implements this program.</p>

**Internal Strategic Directions Measures Progress Update  
 Summary of Implementation  
 August 2007**

Strategic Direction	Measures we are implementing	Measures we are still developing	Measures we will not be implementing
<b>Provide Excellence</b>		<ul style="list-style-type: none"> <li>• Provide a safe, healthy work environment</li> </ul>	
<b>Promote sustainable practices</b>	<ul style="list-style-type: none"> <li>• Percent reduction of greenhouse gas emissions from new passenger vehicles.</li> <li>• Percent of truck stops electrified along I-5, I-84 and US 97 to reduce idling.</li> <li>• Increased number of facilities that reclaim water for reuse</li> <li>• Percent increase use of hybrids/alternative fuel/low emissions vehicles (DEQ)</li> <li>• Reduction in net paper usage (DEQ)</li> </ul>	<ul style="list-style-type: none"> <li>• Increased number of redeveloped Brownfield sites</li> </ul>	<ul style="list-style-type: none"> <li>• Reduction of energy and water use in DEQ offices</li> <li>• Reduction of greenhouse gas emissions from solid waste</li> </ul>
<b>Improve Oregon's air and water</b>	<ul style="list-style-type: none"> <li>• Trend in visibility on the clearest and dirtiest days in Crater Lake National Park and other Oregon wilderness areas</li> <li>• Percent of DMAs in the Willamette Basin with approved Total Maximum Daily Loads</li> </ul>	<ul style="list-style-type: none"> <li>• Improving trend in visibility in the Columbia River Gorge National Scenic Area</li> <li>• Timely compliance and enforcement actions</li> </ul>	

Attachment B, Agenda Item J, Update on Internal Executive Performance Measures  
 December 13-14, 2007 Environmental Quality Commission Meeting

Strategic Direction	Measures we are implementing	Measures we are still developing	Measures we will not be implementing
	implementation plans (TMDLs) <ul style="list-style-type: none"> <li>• Percent of sites identified as contributing to Portland Harbor contamination that are implementing source control measures</li> </ul>		
<b>Protect Oregonians and the environment from toxics</b>	<ul style="list-style-type: none"> <li>• Number of high priority contaminated sites in which human health risks have been addressed</li> </ul>	<ul style="list-style-type: none"> <li>• Toxic pollutants reduced or removed from waste stream</li> </ul>	<ul style="list-style-type: none"> <li>• Effective response to toxic spills on land and in water</li> <li>• Amount of legacy pesticides managed safely</li> </ul>
<b>Involve Oregonians in environmental problem-solving</b>	<ul style="list-style-type: none"> <li>• Increased number of Eco-Biz certified businesses</li> </ul>	<ul style="list-style-type: none"> <li>• Development of new options for managing electronic product waste</li> <li>• Secured grant funding to support local environmental projects</li> </ul>	<ul style="list-style-type: none"> <li>• Increased collection of household hazardous waste</li> <li>• Increased education and involvement of diverse populations in protecting health and the environment</li> </ul>

**Progress Update for Internal Strategic Directions Measures *being implemented***

Strategic Direction	Measure	Progress Update
<b>Promote sustainable practices</b>		
Help reduce global warming	<p><b>Percent reduction of greenhouse gas emissions from new passenger vehicles</b></p> <p><b>Target:</b> 22% reduction by 2012; 30% reduction BY 2016, as compared to 2002 vehicles.</p>	<p>Beginning with the 2009 model year, all new vehicles sold in Oregon will have to meet California's emission standards for light and medium duty vehicles. We expect this program will reduce greenhouse gas emissions from vehicles to meet the targets.</p>
Help reduce global warming	<p><b>Percent of truck stops electrified along I-5, I-84 and US 97 to reduce idling</b></p> <p><b>Target:</b> 100% by 2010.</p>	<p>Based on data from the Oregon Department of Transportation Motor Carrier Division, there are 40 truck stops on I-5, I-84 and US 97. Currently, 6 of these truck stops have electrified parking spaces (15%). While it may seem that we are behind schedule to meet the 2010 deadline, the early installations worked through and eliminated many of the barriers, and we expect the remaining stations will be done more quickly.</p>
Encourage reuse of wastewater	<p><b>Increased number of facilities that reclaim water for reuse</b></p> <p><b>Target:</b> 8.7%</p>	<p>DEQ is continuing to work on amending State rules on the use of recycled water. The Water Reuse Task Force was convened in May 2006 to provide recommendations that would encourage the use of recycled water by updating policy and clarifying program requirements. The public comment period for the proposed rulemaking closed August 31, 2007. DEQ plans to present the proposed rules to the Environmental Quality Commission for adoption at the April 2008 meeting. An information item on the proposed rules will also be presented to the Commission in February 2008.</p> <p>148 facilities of 1741 total permitted facilities are producing water for reuse (8.5%).</p>

Attachment E, Agenda Item J, Update on Internal Strategic Directions Measures  
December 13-14, 2007 Environmental Quality Commission Meeting

Practice sustainable use of resources within DEQ	<p><b>Percent increase use of hybrids/alternative fuel/low emissions vehicles</b></p> <p><b>Target:</b> Increase by 10% annually the number of miles driven in hybrids/alternative fuel vehicles</p>	<p>DEQ's operations require reliance on vehicles in order to effectively implement our mission. Activities include conducting field inspections, monitoring, overseeing environmental cleanup work and enforcement inspections. Because of the nature of the work, this is often done in single occupancy vehicles (as opposed to meetings where carpooling is actively encouraged). In order to reduce our ecological footprint and greenhouse gas emissions, DEQ is actively changing the fleet to include more hybrid and compressed natural gas vehicles.</p> <p>In 2005, DEQ staff drove 121,616 miles in hybrids/CNG cars. In 2006, this number rose to 212,441, an increase of 111%! This resulted in greenhouse gas emissions reductions of 74 tons.</p>
Practice sustainable use of resources within DEQ	<p><b>Reduction in net paper usage</b></p> <p><b>Target:</b> 10% annual reduction in paper usage</p>	<p>We have tracked paper usage since 2004, as one of the agency's sustainability measures. Our annual reduction goal is 10%. In 2006, we reduced our paper usage by 22%, from 9,385 reams of paper to 7,325 reams. This was accomplished through a number of mechanisms, including increased reliance on electronic documents, more effective use of our website to distribute information and internal staff training and awareness. DEQ will continue to look at ways to reduce our reliance on paper.</p>
<b>Improve Oregon's Air and Water</b>		
Clean up the Willamette River Basin	<p><b>Percent of DMAs in the Willamette Basin with approved TMDL implementation plans</b></p> <p><b>Target:</b> 80% by 2007; 100% by 2010</p>	<p>As of December 31, 2006, 0 % of DMAs had approved TMDL implementation plans. DEQ will not meet the 2007 target. The 2007 target was established based on an expectation that the Willamette TMDL would be finalized and approved in 2005. In fact, the TMDL was not finalized and approved until September 2006. The TMDL sets a requirement that TMDL implementation plans be submitted to DEQ for approval 18 months after the TMDL is finalized, and therefore the DMA plans are actually not due to DEQ until the end of March 2008. A more realistic initial target would be 80% by 2008.</p> <p>DEQ's Basin Coordinators assigned to the Willamette have been engaging with the DMAs since the approval of the Willamette TMDL in September 2006, to outline plan requirements and to provide assistance with evaluation of controllable sources of mercury, sediment and bacteria and development of pollution reduction strategies.</p>

Attachment E, Agenda Item J, Update on Internal Strategic Directions Measures  
 December 13-14, 2007 Environmental Quality Commission Meeting

		<p>Some local governments (including small communities and certain counties affected by reduced "timber payments" revenues) have limited staff and resources to develop TMDL implementation plans. DEQ is trying to overcome this impediment by offering guidance, templates and assistance with development of pollution reduction strategies.</p>
<p>Clean up the Willamette River Basin</p>	<p><b>Percent of sites identified as contributing to Portland Harbor contamination that are implementing source control measures</b></p> <p><b>Target:</b> By 2008, 40% of sites identified as contributing to Portland Harbor contamination are implementing source control measures (By 2010, 80% of sites, and by 2012, 95% - 100%)</p>	<p>As Portland Harbor source control efforts progress, our goals gain additional details. These more detailed goals can be found in Section 5 of the bi-yearly <i>Milestone Report for Upland Source Control</i>.</p> <p>Approximately 80 sites were identified as contributors or suspected contributors of contamination to Portland Harbor. 12 of the 80 have been fully evaluated and either determined to not need source control measures or have completed source control measures and are no longer considered a source threatening the river. Currently, 23 of 68 sites identified as contributing to Portland Harbor contamination are implementing source control (34%).</p> <p>Over the next several years, through on-going site discovery efforts, we anticipate the number of sites identified as sources of contamination may exceed 100 sites.</p>
<p>Protect natural and scenic areas</p>	<p><b>Trend in visibility on the clearest and dirtiest days in Crater Lake National Park and other Oregon wilderness areas</b></p> <p><b>Target:</b> No worsening of visibility on the clearest days by 2012, and an improvement in the most severely impaired days</p>	<p>This is a measure of our work on the Regional Haze rule, one of AQ's top priorities. Under this rule, we will be adopting SO<sub>2</sub> and NO<sub>x</sub> controls for the Boardman Coal fired power plant and reducing emissions from up to 9 additional grandfathered sources.</p> <p>The Western Regional Air Partnership (WRAP) has developed an extensive set of tools to support visibility tracking and strategy development for the Regional Haze Plan, including a regional emission inventory and model. The Regional Haze rule requires that we protect visibility on the 20% clearest days and improve visibility on the 20% worst days, and that we demonstrate in our State Implementation Plan (SIP) that we are making reasonable progress in five year increments toward a goal of natural conditions in the year 2064.</p>



		The next SIP revision is scheduled for submission to EPA in early 2008, and will include an extensive demonstration of Oregon's status in meeting these tests.
<b>Protect Oregonians and our Environment from Toxic Pollutants</b>		
Clean up and reduce risks from toxics already in our environment	<p><b>Number of high priority contaminated sites in which human health risks have been addressed</b></p> <p><b>Target:</b> 80% high priority sites by 2010</p>	<p>Since 1997, the Environmental Cleanup Program has identified 293 high-priority sites. These sites have either impacted groundwater or surface water, or pose a high risk to human health. Of those, 182 sites, or 62%, have had human health concerns addressed or are currently being worked on in the program. Our efforts will be evaluated twice per year to ensure that the 2010 80% goal will be reached.</p>
<b>Involve Oregonians in solving environmental problems</b>		
Encourage personal actions to protect the environment	<p><b>Number of Oregon communities that have an Eco-Biz Certification program</b></p> <p><b>Target:</b> Introduce Eco-Biz to 1 community / region / year</p>	<p>The Eco-Logical Business (Ecobiz) Program recognizes businesses in Oregon that reach the highest standards in minimizing their environmental impact. This was the first multi-media (air, water, solid waste) certification program in the nation, developed by staff from multiple agencies including DEQ, City of Gresham, City of Portland, City of Troutdale, Clackamas County, Washington County, Metro, Oregon Department of Environmental Quality, and Clean Water Services. The Ecobiz program began certifying businesses in 1999 in the Portland Metro area and Salem, and was expanded statewide in 2003.</p> <p>Currently businesses in the automotive services and landscaping sectors are eligible for certification. These businesses must complete an extensive checklist covering multiple topics including hazardous waste management, spill prevention, recycling, purchasing, employee training and involvement. They must meet all of the legal and program requirements and 80% of the electives in order to become certified. There are 68 automotive businesses and three landscapers certified throughout the state.</p> <p>In 2006 DEQ conducted Ecobiz outreach to businesses in 20 communities in the State, including 1 community in Eastern Region (Bend), 6 Northwest Region communities, and 13 communities in Western Region. DEQ introduces Eco-Biz to businesses in the state in a variety of ways – during an on-site technical assistance visit, through mailings, etc. We don't track our efforts by community per se. This measure will be re-evaluated to determine a target that more appropriately reflects how DEQ implements this program.</p>



## Proposed Internal Strategic Directions Measures that DEQ is not and will not be implementing


Strategic Direction	Measure	Why we are not implementing this measure
<b>Promote sustainable practices</b>		
Practice sustainable use of resources within DEQ	<b>Reduction of energy and water use in DEQ offices</b>	<p>Agency building leases do not currently provide a mechanism for us to measure the reductions in energy and water usage. However, in the HQ remodel we did install low flow toilets, replaced ballasts with more energy efficient ones, etc. So, we can estimate savings, but we cannot quantify reductions. (Since all the DEQ buildings that DEQ is in share with other tenants, we get a share of the water/electric bill by square footage, not actual usage).</p> <p>In addition, DEQ is tracking the following measures related to energy use: (1) Percent increase use of hybrids/alternative fuel/low emissions vehicles. Target: Increase by 10%; and (2) Reduction in net paper usage. Target: 10% annual reduction. These measures are reported on in Table 4, below.</p>
<b>Protect Oregonians and the environment from toxic pollutants</b>		
Cleanup and reduce risks from toxics already in our environment	<b>Spill response</b>	<p>The Agency considered developing a "timeliness" measure of performance in implementing spill response actions, but in reality timeliness is a given - we must, and do, respond to spills in a timely manner. We have not found a measure of our spill response program that is useful as a tool for management or accountability, and that isn't essentially just "bean counting" (e.g. number of spills responded to).</p>

Attachment C, Agenda Item J, Update on Internal Strategic Directions Measures  
 December 13-14, 2007 Environmental Quality Commission Meeting

<p>Cleanup and reduce risks from toxics already in our environment</p>	<p><b>Amount of legacy pesticides managed safely</b></p>	<p>DEQ does not have a mechanism to track pesticide management. Farms, ranches and businesses across the state may store legacy pesticides, but have no requirement to report this information to anyone. The only thing we have quantified in the past is pounds of legacy pesticides collected at various collection events. DEQ has shifted its efforts from organizing and running household collection events to establishing permanent collection facilities. These facilities are not required to report on the quantity of household hazardous waste they receive, so we will not be able to track legacy pesticides collected from them either.</p>
<p><b>Involve Oregonians in solving environmental problems</b></p>		
<p>Encourage personal actions to protect the environment</p>	<p><b>Increased collection of household hazardous waste (HHW)</b></p>	<p>DEQ is no longer focusing our efforts on organizing and running HHW collection events and so this measure is no longer appropriate. Instead, we have used grant funds to support the establishment of permanent facilities across the state that can accept household hazardous waste. These facilities are not required to report how much HHW they receive, so we will not have the data to support this measure.</p>
<p>Encourage personal actions to protect the environment</p>	<p><b>Increased education and involvement of diverse populations in protecting health and the environment</b></p>	<p>DEQ recognizes the need to reach out to different audiences as the State of Oregon grows and diversifies. As resources allow, we will work with organizations that have mailing lists and connections serving diverse populations regarding rule development, permit issuance, assessing sites for possible contamination and many other agency activities.</p> <p>However, this is not an effort that we will attempt to quantify, i.e., by establishing a numerical metric, and therefore does not represent an Executive Measure. While we will not be tracking this as such, we are committed to involving and being responsive to diverse populations to achieve environmental protection goals.</p> <p>One area where we have made a concerted effort involves Tribal nations in Oregon. In 2005-07, DEQ reached out to the leaders and managers of</p>

Attachment C, Agenda Item J, Update on Internal Strategic Directions Measures  
December 13-14, 2007 Environmental Quality Commission Meeting

			<p>Oregon's federally-recognized Tribes to explore opportunities for greater partnership and collaboration. DEQ Director Stephanie Hallock sent letters to Tribal Chairs offering to visit with them; subsequently, she and DEQ staff members visited several Tribes. DEQ surveyed tribal managers to seek suggestions on relationship building, and based on tribal comments, DEQ strengthened our procedures for notifying tribes of clean-up activities around the state to ensure protection of cultural resources. At the staff level, DEQ works closely with tribal representatives on a wide variety of water, air and land quality activities, and our interactions with tribal nations have been growing. One exciting example of partnership exists in DEQ's work with the Confederated Tribes of the Umatilla Indian Reservation and EPA to increase the state's "Fish Consumption Rate" to better protect tribal members and other at-risk populations.</p>
--	--	--	---

**Date:** November 30, 2007  
**To:** Environmental Quality Commission  
**From:** Dick Pedersen, Deputy Director   
**Subject:** Agenda Item M, Informational Item: Oregon's Actions to Address Climate Change  
December 13-14, 2007 EQC Meeting

**Purpose of Item** During the last five years, Governor Kulongoski has developed an aggressive agenda to combat global warming, including several initiatives that are underway to reduce greenhouse gas emissions in Oregon. The Department of Environmental Quality (Department, DEQ) is implementing two of these initiatives: the Oregon Low Emission Vehicle Program, and the development of Greenhouse Gas Mandatory Reporting Rules. The Oregon Department of Energy and Public Utility Commission are implementing the other initiatives. This informational Item will update the Commission of Environmental Quality (Commission, EQC) on DEQ's role in addressing climate change in Oregon.

**Background** **Oregon Strategy for Greenhouse Gas Reductions (2004)** Governor Kulongoski committed Oregon to reducing its greenhouse gas emissions in cooperation with the governors of California and Washington through the West Coast Governors' Global Warming Initiative. He established the Governor's Advisory Group on Global Warming in 2004 to develop a state strategy to complement the regional effort. The Advisory Group issued its recommendations to the Governor in the *Oregon Strategy for Greenhouse Gas Reductions* in 2004. The *Oregon Strategy* includes a suite of policies and measures to reduce Oregon's greenhouse gas emissions along with recommended greenhouse gas emission reduction goals.

**Oregon Climate Change Integration Group (2005)** The Climate Change Integration Group (CCIG) was formed in 2005 to help implement the Oregon Strategy for Greenhouse Gas Reductions, make recommendations about how Oregon can adapt to unavoidable changes in the climate, and stimulate new research on mitigation and adaptation strategies. CCIG also provides a clearinghouse for sharing

information with citizens about climate change impacts and the opportunities in Oregon to address those impacts in an environmentally and economically sustainable manner. CCIG is preparing its final report to the Governor by December, 31, 2007, which will recommend actions the state should take to adapt to the impacts of climate change.

**Oregon Low Emission Vehicle Rules (2006)** In December 2005, The EQC adopted rules to establish the Low Emission Vehicles (LEV) program. This action made Oregon the 11th state to adopt California's strict emission standards for new vehicles. The new requirements reduce pollution several ways. The rules decrease emissions that cause ground-level ozone, promote zero-emission vehicles and reduce greenhouse gases. The program applies only to new cars and trucks (vehicles with fewer than 7500 miles) and will be phased in beginning with the 2009 model year. House Bill 2272 authorized the Oregon Department of Transportation to deny registration to new vehicles that do not comply with the standards. When the rules take full effect in model year 2016 they will reduce greenhouse gas emissions 30 percent and substantially improve fuel efficiency.

**Western Climate Initiative (2007)** In February 2007, the Governor joined with other western states and helped form the Western Climate Initiative, which commits partners to developing a regional target for reducing greenhouse gases, participating in a multi-state registry, and developing a market-based program to achieve greenhouse gas emission reductions.

**The Climate Registry (2007)** In May 2007, Oregon became an inaugural member of The Climate Registry, which now includes over 40 states, all Canadian provinces, several tribes and the Mexican state of Sonora. The Climate Registry is developing a greenhouse gas emission reporting database that will support reporting and emission reduction policies of the member jurisdictions.

**HB 3543 (2007)** On August 7, 2007, the Governor signed into law HB 3543 that creates a permanent Global Warming Commission, and also put into statute the state greenhouse gas reduction goals the Governor outlined in 2005. The reduction goals are to:

- arrest increasing emissions by 2010,
- reduce emissions to 10 percent below 1990 levels by 2020; and
- reduce emissions to 75 percent below 1990 levels by 2050.

**Greenhouse Gas Reporting (2007-08)** Key to both the Western

Climate Initiative and the new Oregon legislation is obtaining accurate greenhouse gas emissions data. To address this important need, on July 17, 2007 the Governor asked the EQC consider adopting rules for mandatory greenhouse gas reporting as soon as possible.

**Key Issues** DEQ will develop greenhouse gas reporting rules to address the most significant emission sources of greenhouse gases in Oregon, be consistent with other regional and state emission reporting mechanisms, and ensure good quality emissions accounting and quantification. An advisory committee is developing recommendations for this reporting system by the end of 2007, and DEQ will develop rules for EQC consideration by mid-2008.

HB 3543 established a Global Warming Commission to recommend ways to coordinate state and local efforts to reduce greenhouse gas emissions in Oregon consistent with the greenhouse gas emission reduction goals in the bill, and recommend efforts to help Oregon prepare for the effects of global warming. State agencies, such as DEQ, are ex-officio members of the Global Warming Commission.

The Western Climate Initiative is developing a design for a regional cap-and-trade program by August 2008. Governor Kulongoski will be developing legislation to authorize a cap-and-trade program in Oregon.

**Next Steps** The Governor expects to establish the Global Warming Commission by early 2008.

The Western Climate Initiative expects to design the regional cap-and-trade program by August 2008.

DEQ expects to develop draft greenhouse gas mandatory reporting rules for public review by April, 2008.

DEQ and the Department of Motor Vehicles are implementing the Low Emission Vehicle Program.

**EQC Involvement** The EQC will be asked to consider adoption of greenhouse gas mandatory reporting rules at its June or August 2008 meeting. In the future, the EQC may also be asked to consider adopting a cap-and-trade program to reduce greenhouse gas emissions.

**Attachments** A. Testimony of Governor Kulongoski to the House Select Committee on Energy Independence and Global Warming, November 14, 2007

B. Western Climate Change Initiative Agreement, February 26, 2007



**Available  
Upon Request**

References:

The Oregon Climate Change Portal:

<http://www.oregon.gov/ENERGY/GBLWRM/Portal.shtml>

DEQ Climate Change website:

<http://www.deq.state.or.us/aq/climate/index.htm>

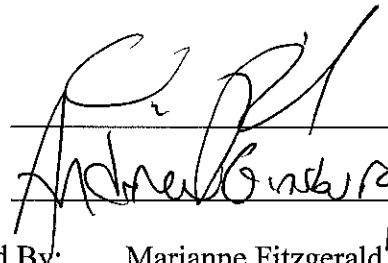
Approved:

Section:

Division:

Report Prepared By:

Phone: 503-229-5946

  
\_\_\_\_\_

Marianne Fitzgerald



November 14, 2007

The Honorable Ed Markey, Chairman  
The Honorable James Sensenbrenner, Ranking Member  
Select Committee on Energy Independence and Global Warming  
U.S. House of Representatives  
B243 Longworth House Office Building  
Washington, DC 20515

Dear Chairman Markey and Representative Sensenbrenner:

I was sorry that I could not attend your hearing on what the States are doing to address global climate change. However, as the Governor of Oregon I wanted to take this opportunity to provide the Committee with a short review of our efforts that make Oregon a leader in addressing global climate change in the United States.

As you know, global warming has become a paramount policy issue across the United States with growing awareness and support among legislators and policy makers and the public. The science is clear that the United States has to join the rest of the industrialized world to provide much needed leadership in combating global warming and that the need for aggressive action is urgent.

As crucial as it is for Oregon and the nation to aggressively reduce greenhouse gas emissions for the health and wellbeing of our present and future generations, it also, if done right, will provide the *greatest* opportunity for economic development and investment the world has ever seen. It is no coincidence that the world leaders in the manufacture of renewable energy products and hybrid automobiles are found primarily in countries outside the United States. They are based in countries like Denmark, Germany, Spain, and Japan, where there has been leadership in climate change and renewable energy policy for years. Now is the United States' turn to capture its considerable share of technology development and economic benefit in these clean tech sectors.

While it has taken this Administration much too long to engage in the crucial issue of global warming, for many years, Oregon and other states and cities have been leading the efforts to aggressively address and combat global warming. There is no silver bullet to reducing greenhouse gas emissions or preparing for adaptation to the impacts of global warming. Consequently, in Oregon, we have been developing several key initiatives to collectively respond to this serious challenge. I would like to share some of these key efforts in Oregon to provide context for your deliberations.

Shortly after being elected to my first term, in 2003, I joined with my fellow governors from California, Governor Grey Davis, and Washington, Governor Gary Locke, to create the first regional initiative in the West to address global warming. Fortunately, the current Governor of California, Governor Arnold Schwarzenegger, and Governor of Washington, Governor Christine Gregoire, continued with this regional effort when they came into office. Through this effort we set the stage for several key policy approaches in our region:

- We adopted a "clean cars" corridor from Baja to Canada, based on the California tailpipe standards. As transportation makes up a large portion of greenhouse gas emissions, this is a key component of a comprehensive global warming strategy;
- To further support the clean cars corridor, we committed to and invested in a strategy to reduce diesel idling in truckstops along the I-5 corridor through our three states by creating electric hook-ups for trucks to operate needed conveniences while resting. Millions of dollars have been invested in this effort, and the Oregon Climate Trust recently sold the first verified emissions credits from North America into the European carbon market from one of these projects in Oregon;
- We are in the process of developing comprehensive statewide global warming plans to combat global warming. Oregon completed its advisory group process in 2004, which generated a report and over 60 recommendations to reduce greenhouse gas emissions in Oregon (<http://www.oregon.gov/ENERGY/GBLWRM/docs/GWRreport-Final.pdf>);
- I announced Oregon's greenhouse gas reduction goals in the spring of 2005 and California and Washington followed soon thereafter. The Oregon reduction goals will arrest increased emissions by 2010; reduce emissions to 10 percent below 1990 levels by 2020; and reduce emissions to 75 percent below 1990 levels by 2050. These goals were placed into statute last year by the Oregon Legislature. The Legislature also created a permanent Global Warming Commission to assist policymakers and state and local governments in achieving those goals;
- All three states now have renewable electricity and fuels portfolio standards that are more aggressive than those set by or contemplated by Congress. Oregon passed renewable portfolio standards for both electricity and fuels in 2007. The electricity standard requires 25 percent of statewide electricity come from new sources of renewable energy by 2025, among the most ambitious in the nation. With Oregon's existing hydro-electric sources of energy, the standard would result in Oregon using over 60 percent non fossil fuel based electricity by 2025. The fuels standard requires that 2 percent of every gallon of diesel fuel be biodiesel (likely to be triggered in 2008), and that 10 percent of every gallon of gasoline be ethanol (already triggered and in effect starting in January of 2008);
- The three states have among the most aggressive building codes in the nation for energy efficiency, as well as the most aggressive appliance efficiency standards. Oregon passed legislation in 2005 and 2007 to conform to the appliance efficiency standards from California. In addition, we have revised our commercial and residential building code requirements over the past four years to increase energy efficiency. In addition, in 2007, the Legislature extended the collection of a 3 percent public purpose charge on certain electric utility bills through 2025. As the primary administrator of public purpose funds, the non-profit Energy Trust of Oregon invests approximately \$54M each year in electric energy

efficiency and renewable energy projects around the state, made possible using this funding mechanism. A separate charge on gas utility bills results in another \$10M annually for energy efficiency projects that save gas. This approach delivers comprehensive benefits to customers on how to save both gas and electricity, use energy more efficiently and take full advantage of renewable energy opportunities

The three-state initiative also led to what has become a much broader coalition of states and Canadian Provinces, called the Western Climate Initiative (WCI). The WCI was formed in January 2007, with Oregon, Washington, California, Arizona and New Mexico as founding members, and joined soon thereafter by Utah and the Canadian Provinces of British Columbia and Manitoba. In addition, the WCI has numerous formal observers from Western States, Canadian Provinces, and the Mexican State of Sonora.

The objectives of the WCI are to create a regional greenhouse gas reduction goal based on the existing goals of the participating jurisdictions, and to develop a regional cap and trade program as a key tool for achieving those reductions. The WCI announced the regional reduction goal in August of 2007 (to reduce emissions to 15 percent below 2005 levels by 2020), and is on track to complete a proposed regional cap and trade design by August of 2008 which would then be implemented by each of the member jurisdictions. This program, when implemented, will be the largest source of emissions reductions in the region and in Oregon. The program also is unique from the similar efforts on the East Coast in that it will likely extend beyond the electricity sector and include other major sources of emissions. Therefore, it is key to Oregon's strategy that the program not be preempted by federal legislation unless the federal legislation is as aggressive and would result in as much or more emissions reductions in our region.

Finally, in addition to the above mentioned statewide efforts, I have been committed to Oregon state government leading by example. To do so, I have initiated the following efforts within state government:

- I directed state agencies to collectively develop a comprehensive greenhouse gas footprint, to my knowledge, the first such effort by a state government in the country;
- I directed state agencies to use 100 percent renewable electricity by 2010. Again, to my knowledge, the first such effort by a state in the country. One example of this effort is our Department of Transportation looking to develop a pilot solar energy initiative using state rights of way;
- I directed state agencies to "green" their fleets and use increasing amounts of ethanol and biodiesel. To date, our largest fleet has converted to over 30 percent hybrid and alternative fuel vehicles and it uses E-85 as a standard fuel in the largest motor pools. Our Department of Transportation also has committed to using a B-20 blend throughout the Portland metropolitan area;
- I directed state agencies to increase energy efficiency and conservation by 20 percent from a 2000 baseline by 2015;
- I have directed state agencies to develop policies to reduce greenhouse gas emissions and to help the state achieve our reduction goals through their individual missions and policies. Key agency

directors are members of the permanent Global Warming Commission and will help to bring the resources of their agencies and missions into alignment with the reduction goals. As one example, the Department of Transportation is working to include climate change policy into its statewide planning, and climate change policy will be an integral part of the next transportation funding package.


As you can see, Oregon has been working hard to be a leader in combating global warming and is seeing the economic benefit of these aggressive actions. Rainy Oregon is becoming the solar manufacturer capitol of North America, now home to manufacturing expansions of two major international solar companies, SolarWorld and Solaicx. These manufacturing jobs are a small part of the solar jobs equation with thousands of jobs being generated around solar energy installation in homes and businesses.

In addition, Oregon has one of the most vibrant wind energy development corridors in the nation in the Columbia River Gorge. Also, Oregon is home to one of the first new forest-to-biomass energy projects in the country. Similarly, this year, Oregon opened its first major ethanol facility and should have a second facility opening in 2008. We also have seen several biodiesel facilities open or expand this year. And Oregon eagerly awaits the arrival of cellulosic biofuels.

This economic expansion is occurring not only in our major population centers around Portland and the Willamette Valley, but also in our rural communities, like Boardman, Clatskanie, and Lakeview. The Pacific Ethanol facility in Boardman, alone, represents a \$100 million dollar investment in Oregon that resulted in more than 200 construction jobs followed by 40 full-time jobs for a rural community which equal approximately 1000 jobs in the Portland area.

I hope that Congress will be able to achieve important global warming legislation in the near future to complement the efforts that have been occurring at the regional and local levels. Thank you for allowing me to share with you the environmentally and economically profitable efforts in which Oregon is already engaged.

Sincerely,



Governor Theodore R. Kulongoski  
State of Oregon



**Christine O. Gregoire**



**Theodore R. Kulongoski**



**Arnold Schwarzenegger**



**Janet Napolitano**



**Bill Richardson**

## **WESTERN REGIONAL CLIMATE ACTION INITIATIVE**

**WHEREAS**, western states are experiencing the effects of a hotter, drier climate, including prolonged droughts, excessive heat waves, reduced snow packs, increased snowmelts, decreased spring runoffs, altered precipitation patterns, more severe forest and rangeland fires, widespread forest diseases, and other serious impacts; and

**WHEREAS**, scientific consensus has developed that increasing emissions of human-caused greenhouse gases (GHGs), including carbon dioxide, methane and other GHGs, that are released into the atmosphere are affecting the Earth's climate; and

**WHEREAS**, the Western Governors Association (WGA) has declared that climate change could have severe economic and environmental impacts on the Western States in coming decades; and

**WHEREAS**, the WGA also has declared that action is needed to reduce GHG emissions and that many of these actions can have significant economic and environmental benefits for the Western States, including increased energy efficiency, increased renewable energy generation, improved air quality, cost savings, job growth, increased state revenues, and reduced water pollution; and

**WHEREAS**, we support the development of national, regional, tribal, state and local programs to reduce GHG emissions; and

**WHEREAS**, we support national, regional, tribal, state and local level policies on global climate change that are consistent with efforts to develop cost-effective alternative energy sources and more efficient use of energy; and

**WHEREAS**, we recognize the need for collaboration among states to develop climate change policies that provide consistent approaches to recognize and give credit for actions to reduce GHG emissions; and

**WHEREAS**, we have already adopted or committed to adopt clean tailpipe standards for passenger vehicles that will result in major reductions in GHG emissions and other pollutants; and

**WHEREAS**, we support market-based policies to reduce GHG emissions in the most cost-effective manner; and

**WHEREAS**, we have set goals to significantly reduce GHG emissions from our respective states; and

**WHEREAS**, we welcome expanding the partners to this initiative to other states, tribes, Canadian provinces and Mexican states and offer monitoring status to any state, tribe or province interested in observing the initiative;

**NOW, THEREFORE**, we, the undersigned Governors, jointly establish the Western Regional Climate Action Initiative and agree to collaborate in identifying, evaluating and implementing ways to reduce GHG emissions in our states collectively and to achieve related co-benefits. This collaboration shall include, but is not limited to:

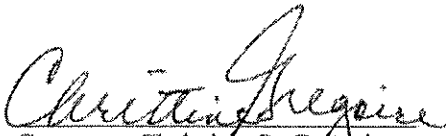
- Setting an overall regional goal, within six months of the effective date of this initiative, to reduce emissions from our states collectively, consistent with state-by-state goals;
- Developing, within eighteen months of the effective date of this agreement, a design for a regional market-based multi-sector mechanism, such as a load-based cap and trade program, to achieve the regional GHG reduction goal; and
- Participating in a multi-state GHG registry to enable tracking, management, and crediting for entities that reduce GHG emissions, consistent with state GHG reporting mechanisms and requirements.

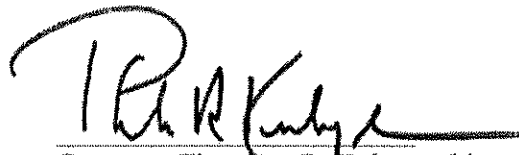
In addition, we commit to continue our independent and collaborative efforts to reduce GHG emissions through:


- Promoting the development and use of clean and renewable energy within the region;
- Increasing the efficiency of energy use within our jurisdictions;
- Advocating regional and national climate policies that reflect the needs and interests of western states, tribes and provinces; and
- Identifying measures in our states, tribes and provinces to adapt to the impacts of climate change.

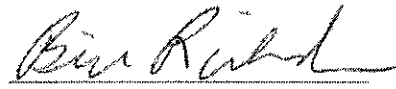
We will direct our staffs and the appropriate state agencies to meet as soon as is practicable to develop a work plan to move forward with this initiative.


DONE, in five (5) duplicate originals, this 26<sup>th</sup> day of February, 2007, in Washington, D.C.

  
Governor Christine O. Gregoire  
State of Washington


  
Governor Theodore R. Kulongoski  
State of Oregon

  
Governor Janet Napolitano  
State of Arizona

  
Governor Bill Richardson  
State of New Mexico

  
Governor Arnold Schwarzenegger  
State of California



**Date:** November 30, 2007  
**To:** Environmental Quality Commission  
**From:** Dick Pedersen, Deputy Director   
**Subject:** Agenda Item N, Informational Item: Life Cycle Analysis and New Directions in DEQ's Solid Waste Program  
December 13-14, 2007 EQC Meeting

**Purpose of Item** At its Strategic Planning discussion in October, the Environmental Quality Commission (Commission, EQC) expressed interest in preventing environmental problems through innovative actions related to climate change, energy, cross-media approaches, sustainability, and involving Oregonians. This informational item will inform the Commission of several such initiatives currently underway in the Department of Environmental Quality's (Department, DEQ) Solid Waste Program, and provide background information to inform future Commission discussions.

**Background** A few weeks ago, DEQ released disposal and recovery estimates for 2006. Since 1992, DEQ has estimated the quantities of municipal solid wastes recovered and disposed by Oregonians. These wastes include what is traditionally thought of as "garbage," such as packaging, food, yard wastes, paper, clothing, furniture, and certain construction wastes. "Recovery" includes wastes recycled, composted, and in some cases burned for energy.

The trend for waste recovery is generally positive. The percentage of Oregon's solid waste that is recovered has risen from an estimated 27% in 1992 to 44% in 2006, which is directly related to the expansion of recycling and composting programs. Even though many Oregon communities no longer face limited landfill capacity, waste recovery provides much larger environmental benefits. When recycled wastes displace new materials in manufacturing, the resulting energy savings and reductions in emissions of greenhouse gases and some other pollutants are significant.

While Oregonians are recovering a larger percentage of our waste, the total amount of waste we generate continues to grow steeply – from 5.7 pounds per-capita per-day in 1992 to 8.5 pounds per-capita per-day in 2006. Waste generation is the sum of disposal and recovery, and a

Agenda Item N, Informational Item: Life Cycle Analysis and New Directions in DEQ's Solid Waste Program

December 13-14, 2007 EQC Meeting

Page 2 of 2

rough measure of how much material Oregonians consume and discard. Analysis suggests that increasing consumption is contributing to the rise in waste generation, which means that focusing on waste recovery alone will not necessarily reduce the flow of waste into the state's landfills and garbage incinerators. More significantly, for many materials the environmental burdens of production are many times greater than the environmental burdens of waste disposal. Production-related burdens include land impacts, energy use, and water and air pollution associated with resource extraction, manufacturing, and transport. Increasingly, these burdens are global in both distribution and impact.

DEQ's Solid Waste Program has several initiatives currently underway to address these challenges. New analytical tools include life cycle analysis (LCA), an accounting of the environmental burdens or impacts over the entire life of a material or product. LCA and other new methods of examining materials and waste are changing the way the Solid Waste Program prioritizes, evaluates, and communicates about our work. These innovative approaches, as well as new partnerships with stakeholders, are attracting significant interest from other states and from industry. Building on a successful pilot project with businesses to reduce packaging waste through redesign, DEQ is significantly expanding our effort to prevent waste (the "reduce, reuse" part of "reduce, reuse, recycle"). New projects will focus on construction practices for buildings, packaging redesign, and engaging consumers and businesses in reducing carbon emissions and other impacts associated with product choices.

**EQC  
Involvement**

At future meetings, the Department plans to bring to the Commission significant policy proposals, rule changes, and possibly legislative proposals to expand these initiatives. For example, a compost rule revision is currently in process, and possible legislative proposals include chemical policy reform.

Approved:

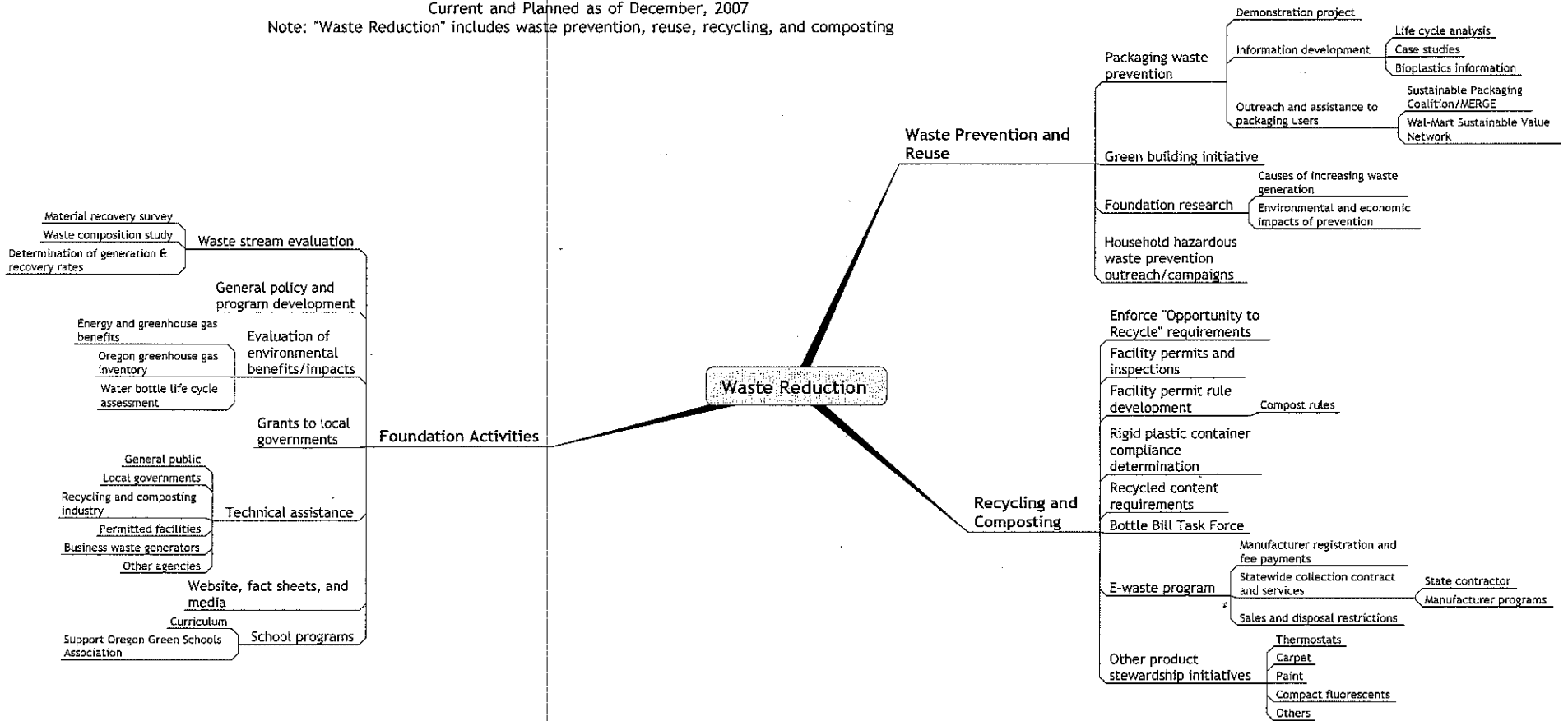
Section: Loretta Picheval for David Allaway  
Division: Loretta Picheval for Al Kephart

Report Prepared By: David Allaway  
Phone: (503) 229-5479

Summary of DEQ Activities in Support of  
Waste Reduction (Solid Waste)

Current and Planned as of December, 2007

Note: "Waste Reduction" includes waste prevention, reuse, recycling, and composting



Friday Dec. 14

①

# Oregon Environmental Quality Commission

## Public Forum Request to Present Information

Agenda Item \_\_\_\_\_ or  
Topic of Presentation Chemical Waste Management Permit Modification

Karen Williams

Name (Please print clearly)

5659 SW Texas St., Portland, OR 97219

Address

AFSCME 3336

Affiliation

Email (optional)

Phone (optional)



# Please Sign In

Environmental Quality Commission Meeting  
Portland, Oregon ~~August 16 9:30AM - 4:30PM~~

December 13 8:30-4:45pm

Name	Organization	Phone
MIKE STROUD	UMCDF	(541) 564-7058
Greg Aldrich	DEQ	503. 229. 6345
Tom Bispham	self	503 659-0225
Larry Harvey	Pac West	503-781-4028
Joanie Stevens Schweigen	DEQ	
Christine Caurant	Pierra Club	503 243-6656 x 302
Traus Williams	WRM	227640
Stem Thompson	Sierra Club	listed
Rick Paul	FWF	503-329-2890
Larry McAllister	DEQ	503 229 6412



advocates and public agency staff who are working on new approaches to toxic chemical management will share their ideas with the Governor's work group. Some new toxics initiatives would require legislative action, while others could be implemented under existing statutory authorities.

**EQC  
Involvement**

The Department will keep the Commission apprised of developments resulting from the work of the toxics policy groups at future meetings, and solicit the input of the Commission on policy options. The Department will also continue to involve the Commission in shaping the Department's current and future toxics reduction strategies.

Approved:

Division:

Kevin Masterson for Greg Pettit, LAB

Report Prepared By: Kevin Masterson  
Phone: (503) 229-5983, x260

I am speaking today representing AFSCME 3336, the represented employees of the Department of Environmental Quality. In the case of the Chemical Waste Management permit modification, currently open for public comment, the Union is concerned, based on the judgment of technically informed staff, that the proposed modification is not protective of human health and the environment. AFSCME 3336 will be submitting public comments to DEQ via Mr. Brett McKnight on Monday, December 17.

The Union is concerned because existing releases of VOCs from unlined landfills could contaminate the regional drinking water aquifer for hundreds of years before being detected at the monitoring wells proposed in the permit modification.

Not only does this permit modification not address corrective action for these groundwater releases, nor abandonment of damaged wells, thought to be the transport mechanism of volatile organic compounds (VOCs) from unlined landfills to groundwater, it proposes to delete existing permit requirements to sample wells near the largest release.

This permit modification proposes to now monitor the most significant VOC release at wells 1500 feet down-gradient from the source of the release and only in the Selah aquifer, an aquifer that is not currently used for drinking water down-gradient of the facility. The regional Columbia River Basalt (CRB), however, is used extensively for drinking water in the area and VOC contamination has been detected in one well in the CRB aquifer at the facility. No monitoring of this lower aquifer is proposed, although *there is evidence* *that the* Selah aquifer leaks to the CRB aquifer. A conservative estimate of groundwater/contaminant travel time to this aquifer is 100 years – much sooner than the 1500-year travel time to the proposed monitoring wells in the Selah aquifer.

The Union is concerned that DEQ staff members, with an accumulative 15 years of experience evaluating the hydrogeologic issues at this landfill, were not involved or consulted in this permit modification decision.

The Union is requesting the EQC to direct DEQ management responsible for this permit modification decision to regard the Union's *technical* comments and modify their decision to be protective of human health and the environment.

*Public Testimony*


*Karen Williams - AFSCME 3336*

*12/14/07*



State of Oregon  
Department of Environmental Quality

Memorandum

**Date:** November 30, 2007  
**To:** Environmental Quality Commission  
**From:** Dick Pedersen, Deputy Director   
**Subject:** Agenda Item P, Informational Item: Selected DEQ Toxics Reduction Efforts  
December 13-14, 2007 EQC Meeting

**Purpose of Item** The purpose of this item is to brief the Environmental Quality Commission (Commission, EQC) on two of the Department of Environmental Quality's (Department, DEQ) current toxics reduction efforts. Today's presentation can provide a starting point for future Commission discussions concerning toxics reduction initiatives.

**Background** At its October 2007 meeting, the Commission heard testimony on potential new approaches for reducing toxic chemicals and pollutants in Oregon's environment. DEQ and the State Health Division have been engaged in discussions with these organizations to address the gaps in the current systems for managing toxic chemicals. In addition, the Governor's Office has convened an inter-agency group to explore possible legislative concepts to protect public health and the environment from toxics.

**Key Issues** Key issues include:

- Preventing the generation of pollutants at the source through the use of alternative chemicals, processes, methods or equipment, in addition to regulating discharges;
- Reducing pollution from non-point sources;
- Using collaborative methods, such as voluntary partnerships with public and private entities, to target both point sources and non-point sources; and
- Exploring new opportunities to reduce the supply, as well as the demand, of toxic chemicals and products in Oregon

**Next Steps** The Governor's inter-agency toxics work group will meet again before the end of the year to review potential toxics legislative concepts developed by individual agencies. Environmental health

# DEQ TOXICS POLLUTION PREVENTION PROGRAMS

EQC Meeting, December 14, 2007

## AIR QUALITY

In addition to air quality permits and rules, such as the recent Clean Air Mercury Rule (CAMR), that limit the emissions of toxic pollutants and provide an incentive for industrial facilities to reduce the use of toxic chemicals, the following DEQ Air Quality efforts prevent the generation of air toxics:

- **Clean Diesel Initiatives** - DEQ promotes and facilitates the use of cleaner diesel fuels, engine retrofits, and reduced idling to reduce a leading source of air toxics. School districts, municipal transit systems, and commercial fleets in Oregon have been making changes to reduce toxic diesel pollution with DEQ's assistance.
- **Cleaner burning woodstoves** - Promoting the use of cleaner burning wood stoves and ways to improve efficiency of stoves is a DEQ priority. DEQ implements state rules that allow only certified clean burning wood stoves to be bought and sold in Oregon, and has encouraged local governments to adopt ordinances that require woodstoves to be upgraded when homes are sold.
- **Open burning restrictions** - DEQ implements rules that place restrictions on "backyard" burning of solid wastes. This type of burning is a significant source of air toxics such as dioxin. DEQ has also encouraged and assisted local governments in adopting residential open burn bans within their city limits.
- **Employee Commute Options** - Large employers are required to implement plans designed to reduce driving trips by employees, thus reducing the emissions of toxic pollutants from vehicles.
- **Anti-idling and "Don't Top Off" Education** - DEQ has undertaken efforts to encourage commercial operations and the general public to reduce toxic vehicle air emissions by not idling car engines and by not "topping off" vehicle fuel tanks.
- **Vehicle Inspection Program** - Vehicle inspection requirements in Portland and Medford limit vehicle emissions that contain toxic air pollutants by making sure air pollution reduction systems in vehicles are working properly.
- **Small Business Air Quality Technical Assistance Program** - DEQ works with trade groups and businesses with fewer than 100 employees to help reduce air toxics. For example DEQ provided leak detectors to drycleaners to help prevent the release of perchloroethylene.

## LAND QUALITY

The DEQ Land Quality Division implements and enforces hazardous waste management and contaminated site cleanup rules that provide a strong incentive to industrial facilities to reduce the generation of toxic pollutants. Grants help local governments establish collection systems for household hazardous waste (HHW), while DEQ provides direct collection of HHW in underserved areas. The following programs and projects are focused on reducing the use of toxics and preventing the generation of toxic wastes:

- **Toxic Use and Hazardous Waste Reduction Program** - The Oregon Toxic Use Reduction (TUR) law requires certain facilities to plan for the reduction of toxic chemical use and hazardous waste generation, and report results to DEQ. In addition, DEQ provides toxics use and hazardous waste reduction technical assistance to businesses throughout the state.

- **Household Hazardous Waste Education** - DEQ communicates information to the public on how to reduce the use of hazardous products and generation of hazardous wastes in the home, and provides local governments with the resources and assistance they need to implement local public education programs. In addition, DEQ will be launching pilot projects in 2008 to work with several communities in Oregon to reduce residents' use of hazardous chemicals and products, and measure the results.
- **Product Stewardship Initiatives** - Product stewardship means that all parties involved in designing, manufacturing, selling and using a product take responsibility for environmental impacts at every stage of that product's life. DEQ is promoting and facilitating product stewardship efforts for consumer products with toxic constituents, such as electronics, pharmaceuticals and paint.
- **Healthy Lawns, Healthy Families Program** – A partnership was developed between DEQ and local governments to encourage homeowners to reduce the use of lawn and garden chemicals as a way of preventing water pollution and the exposure of children to toxics. This education campaign provides the public with information on alternative lawn care techniques.

## WATER QUALITY

The DEQ Water Quality Program limits the discharge of toxic pollutants to waters of the state by developing in-stream standards for toxics, and issuing and enforcing permits and rules that ensure these standards are met. In addition to wastewater discharge limitations and controls for toxics, DEQ implements the following programs with a focus on toxics pollution prevention:

- **NEW Senate Bill 737 - Persistent Pollutant (PBT) Reduction** - DEQ will develop a priority list of persistent bioaccumulative toxic pollutants (PBTs) and a summary of potential reduction options for those pollutants. The 52 largest municipal wastewater agencies in the state will then develop and implement plans for reducing those priority pollutants.
- **Pesticide Stewardship Partnerships** – DEQ works closely with multiple agencies and organizations in five agricultural watersheds in the state to monitor for current use pesticides in surface waters. The monitoring data is used to direct voluntary implementation of best management practices designed to reduce drift and runoff of pesticides into surface waters.
- **Total Maximum Daily Loads (TMDLs) for Mercury and Other Toxics** – The Willamette Mercury Total Maximum Daily Load (TMDL) determined that erosion of native soils is a source of on-going loading of mercury into the Willamette. As a result, TMDL implementation plans include erosion prevention measures in addition to the source reduction efforts of municipal and industrial point sources. Similarly, non-point TMDLs for pesticides also emphasize erosion prevention actions to limit the runoff of soils containing pesticides.
- **Stormwater Pollution Prevention Plans** – Permits for municipal and industrial stormwater discharges require the implementation of plans to minimize polluted runoff to surface water that can contain heavy metals, pesticides and petroleum by-products. These plans emphasize preventing the generation of polluted stormwater (e.g., covering storage areas, preventing spills, etc.) over the treatment of runoff.
- **Underground Injection Control (UIC) Program** - Similar to the requirements for stormwater, the UIC Program requires entities that own or operate UIC system (e.g., drywells) to implement pollution prevention measures. The measures are designed to prevent the generation and runoff of toxic pollutants that could be discharged to these systems and contaminate groundwater.



## DEQ Toxics Reduction Efforts

### Environmental Quality Commission Meeting

December 14, 2007

Portland, OR

Greg Pettit, Kevin Masterson and David Livengood



## Presentation Overview

- Toxics in Oregon's Environment
  - What's known and unknown?
- Reducing Toxics Released to Environment
  - Discharge and Management Regulations
  - Pollution Prevention Approaches
- Highlighting Two Toxics Reduction Programs
  - Toxics Use and Hazardous Waste Reduction Program
  - Pesticide Stewardship Partnerships
- Additional Opportunities for Reducing Toxics in Oregon



## Defining Toxics

A **toxic chemical** is an agent that can produce an adverse effect in a biological system at a low concentration or dose.



## Assessing Toxics in Oregon's Environment

### WHAT DOES DEQ DATA TELL US?

- **Know a lot about small number of toxics in the ambient environment**
  - Air - Combustion by-products (PAHs, VOCs) and metals in a certain urban areas
  - Surface Water and Sediment - “Legacy” pollutants (e.g., PCBs, DDT), mercury and other metals, and some current-use pesticides
  - Groundwater - Arsenic and a some pesticides



## Assessing Toxics in Oregon's Environment

### WHAT DOES THE DATA NOT TELL US?

- **Limited knowledge of most toxic chemicals and their effects**
  - Emerging data on low levels of many toxic constituents found in consumer products
  - Research on biological effects lags behind the chemistry
  - Synergistic and additive effects are largely unknown
- **DEQ is expanding toxics monitoring to fill gaps**



## Reducing Impacts of Toxics in Oregon's Environment

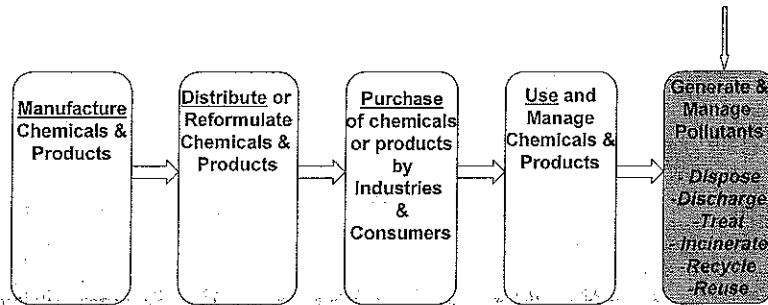
### REGULATORY APPROACHES

- **“Point Source” Regulations and Permits**
  - Clean Air Act and State Air Discharge Permits
    - *188 air toxics*
  - Clean Water Act (NPDES) and State Discharge Permits
    - *156 toxics with water quality criteria*
  - Resource Conservation & Recovery Act (RCRA)
    - *502 hazardous constituents*
  - Superfund and State Cleanup Rules
    - *275 priority hazardous substances*



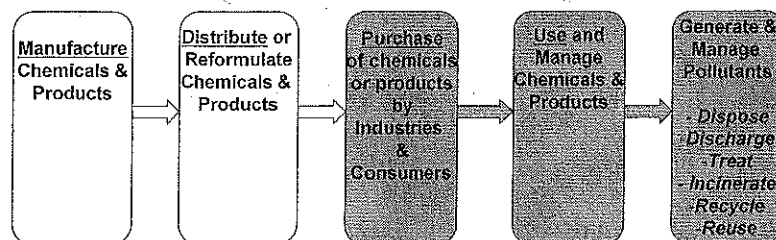
## Reducing Toxics in Oregon's Environment: Regulatory Approaches

*The focus of most environmental regulations is at the end of the life cycle of a toxic chemical*



## DEQ Toxics Pollution Prevention Efforts

- Pollution Prevention Activities
  - Voluntary and collaborative
  - Point and non-point programs
  - Air, Water, Land Divisions involved





## Toxics Pollution Prevention Efforts

### HIGHLIGHTING TWO CURRENT PROGRAMS

- Toxic Use and Hazardous Waste Reduction Program
- Pesticide Stewardship Partnerships



## Toxics Use & Hazardous Waste Reduction Assistance Program

- Toxics Use Reduction and Hazardous Waste Reduction Act
  - Applies to large toxics users, large and small quantity generators of hazardous waste
  - Currently, over 350 businesses in program
- Technical Assistance
  - Offered to all sizes of businesses and organizations
  - 1,000's of visits to date, averaging ~300/yr.





## Toxics Use & Hazardous Waste Reduction Act

### Four Major Requirements

1. Prepare a Reduction Plan or Environmental Management System (EMS)
2. Notify DEQ when Plan or EMS is done
3. Submit Implementation Summary(-ies)
4. Keep Plan or EMS on site and current



## Technical Assistance Approaches

### All Voluntary Projects

- Watershed-based initiatives
  - A-3 Channel, Calapooya Crk, Sutherlin Crk, Pringle Crk, Columbia Slough, Portland Harbor
- Sectors
  - Marinas, hospitals, schools, and radiator shops
- Partnerships
  - Eco-Logical Business
  - EPA National Partnership for Environmental Priorities (NPEP)



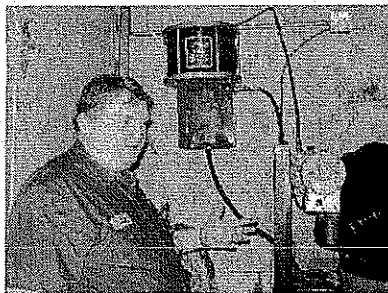
## Xerox Office Group Case Study



- Large toxics user and large quantity generator
- Eliminating 118 lbs of lead
- Eliminating ~2,000 lbs of hazardous waste
- Affecting suppliers and manufacturers in Asia



## Case Study: Star Automotive & Import Services



- Reduced hazardous waste from 9,000 lbs/yr to less than ~250 lbs/yr
- Diverted 4,000 gals/yr of toxics-laden water
- EcoBiz partner



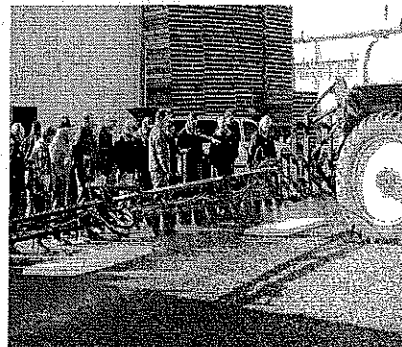
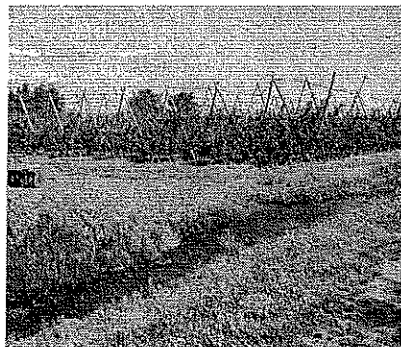
## What's Next?

- Further develop the Toxics Use and Hazardous Waste Reduction Program
  - Adding ~350 more businesses
- Continue geographic initiatives
- Outreach to auto body sector
  - Potentially reaching ~1,000 businesses
- Expand partnerships
  - Oregon Manufacturing Extension Partnership
  - County Planning to aid home-based businesses



## Pesticide Stewardship Partnerships

*Using monitoring data to drive pollution reduction actions in watersheds*





## Pesticide Stewardship Partnerships: Overview

### KEY ELEMENTS OF PARTNERSHIP PROJECTS

- Monitor for current use pesticides in surface waters from drift & runoff
- Collaborative approach to identify problems and implement best practices
- Follow-up monitoring to determine success over time



## Pesticide Stewardship Partnerships: Overview

### KEY PLAYERS

- **Who are the partners?**
  - DEQ
  - OSU Extension Service
  - Department of Ag
  - Grower groups
  - Watershed Councils
  - Soil and Water Conservation Districts
- **How are the projects supported?**
  - Grant funds for monitoring
  - In-kind contributions from existing staff



## Pesticide Pollution Prevention Measures

### COMMON BEST MANAGEMENT PRACTICES

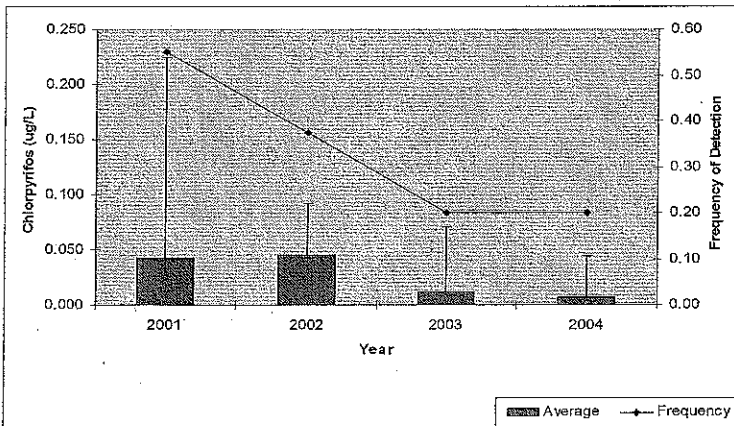
- Spray calibration and drift reduction training
- Improvements to pesticide application equipment
- Promoting alternative pest controls (IPM)
- Replacement of organophosphate insecticides with less toxic pesticides and mineral oil
- Vegetated buffer strips for ag areas adjacent to surface waters



## Pesticide Stewardship Partnerships

### TOXICS FROM AGRICULTURAL AND FOREST LANDS

Hood River Pilot Project:  
Pesticide Monitoring from Neal Creek in Hood Basin

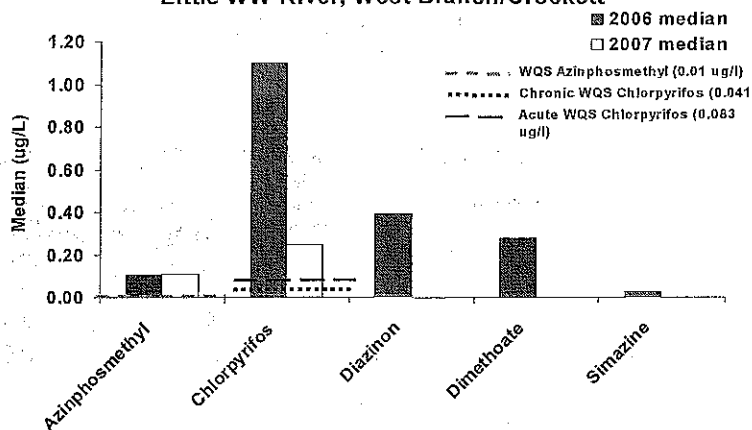




## Pesticide Stewardship Partnerships: Documenting Improvements

### WALLA WALLA: SITE-SPECIFIC RESULTS

Median Pesticide Concentrations:  
Little WW River, West Branch/Crockett



## Pesticide Stewardship Partnerships: Current and Future Challenges

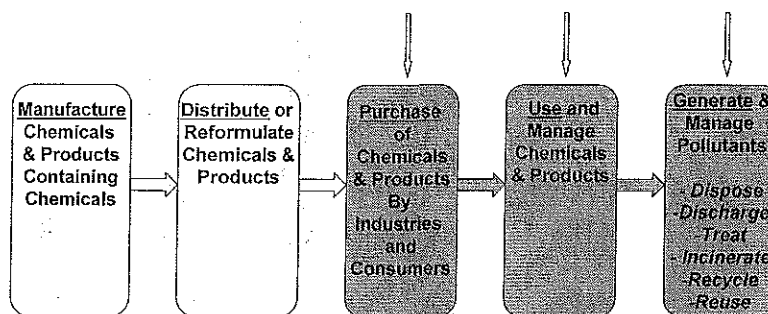
### WHATS NEXT?

- Maintaining and building on improvements in Hood and Walla Walla Basins
- Willamette Valley projects more complex
- Expand scope of projects to include more land uses (forest, urban) and pesticides
- *Challenge: Hundreds of pesticides registered in Oregon and water quality standards for only a handful*



## Remaining Opportunities: Addressing the Supply Side

Toxics pollution prevention efforts have moved us further upstream, but not all the way....



## Evolution in chemical management in the U.S over past 30 years

Stage 1: Disposal and dilution  
(pre-1970s)

Stage 2: Waste treatment and pollution control  
(1970's and 1980's)

Stage 3: Toxics reduction programs and policies →  
chemical-by-chemical approach  
(1990 – present)

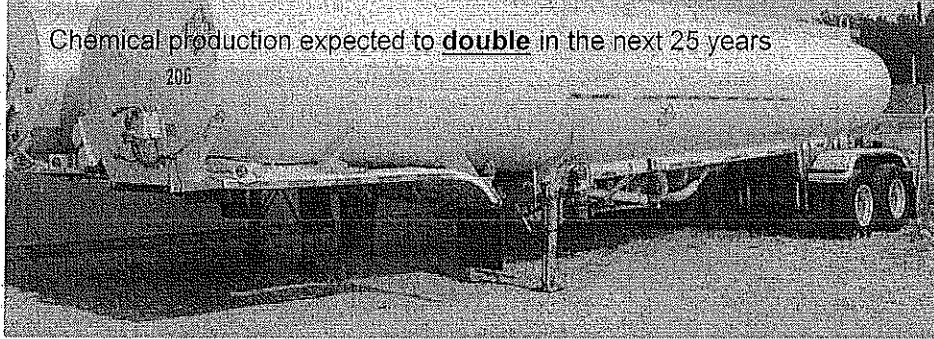
Stage 4: Chemicals and materials policy → Chemical  
design, life cycle, markets  
(Next wave?)

**42 billion pounds (623,000 tankers)** – Total daily U.S. chemical production and importation

**Over 80,000** chemicals on Toxic Substances Control Act (TSCA) inventory → **156** water toxics regulated by Clean Water Act & **188** air toxics regulated by Clean Air Act

**1,500** new chemicals every year

Chemical production expected to **double** in the next 25 years



## Questions Remain

- Not all 80,000 chemicals in commerce are toxic, but.....

?





## Gaps in the Current System

### Data Gap:

Producers not required to generate comprehensive toxicity and ecotoxicity data that businesses and consumers need to understand chemical hazards and compare alternatives

### Safety Gap:

Government agencies don't have the information they need to systematically identify and prioritize chemical hazards, nor the legal tools to effectively mitigate them

### Technology Gap:

Limited private or public sector drivers to invest in "green chemistry", which is reflected in research and education

Mike Wilson - UCalfornia, Berkeley



## Potential Path Forward

- **Close Data Gaps:** Produce standardized, comprehensive hazard information on chemicals and products
- **Close Safety Gap:** Develop tools that allow government and public to act in face of uncertainty & to identify safer alternatives
- **Close Technology Gap:** Invest in research, assistance and incentives for businesses to switch to the safest chemicals and processes.

Mike Wilson - UCalfornia, Berkeley



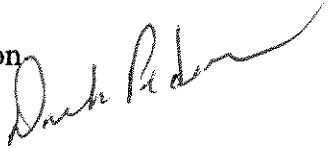
## What's happening elsewhere?

- European Union's Registration, Authorization and Evaluation of Chemicals (REACH)
- State Chemicals Policy Development: *California, Maine, Michigan Executive Orders*
- Body Burden studies: *OEC Pollution in People Report*
- Green Chemistry Innovation – e.g., UO research
- Bans on emerging environmental toxics: PBDE's (WA & OR), Pthalates (CA), and other substances in products



## Current Activities in Oregon

- Oregon Chemical Policy Roundtable
  - *DEQ and State Health engaged in discussions with environmental health advocates*
- Regional and National Dialogue
  - *DEQ exchanging information with other states on chemical policy developments*
  - *Opportunity to develop inter-state clearinghouse*

**Date:** November 30, 2007  
**To:** Environmental Quality Commission  
**From:** Dick Pedersen, Deputy Director   
**Subject:** Agenda Item Q, Informational Item: Pharmaceutical Take Back  
December 13-14, 2007 EQC Meeting

**Purpose of Item** The purpose of this item is to inform the Environmental Quality Commission (Commission, EQC) on results of the Oregon Pharmaceutical Take Back Stakeholder Group facilitated by the Oregon Association of Clean Water Agencies (ACWA).

**Background** Unused drugs kept in medicine cabinets, tossed in the garbage, or flushed down the toilet or drain can be serious threats to human and environmental health. Drugs of concern include controlled and non-controlled prescription drugs as well as over-the-counter medications. Drug take back programs reduce avoidable poisoning of both children and adults; prevent intentional misuse of unwanted prescription drugs, especially by teenagers; and protect water quality and fish and other aquatic species.

In October 2006, the Oregon Association of Clean Water Agencies (ACWA) convened a group of stakeholders to explore the development of a statewide drug take back program in Oregon. (Group members are listed in Attachment A.) The Oregon Pharmaceutical Take Back Stakeholder Group met for one year (October 2006 to October 2007) to create a proposed program for Oregon that would be effective, fair, and economical. The Department of Environmental Quality (Department, DEQ) participated as a stakeholder and funding agency. The process and recommendations are summarized in the Oregon Pharmaceutical Take Back Stakeholder Group Final Report. The executive summary is provided in Attachment B.

The Stakeholder Group recommended a pharmaceutical take back program in Oregon based on the Medications Return Program operated successfully in British Columbia since 1996. The BC program uses a product stewardship or producer responsibility approach - those who design, produce, sell, or use a product take responsibility for minimizing the product's environmental impact throughout all stages of the product's life cycle. Producers typically assume more responsibility because they are in the best position to minimize impacts. Product stewardship programs exist in Oregon for rechargeable batteries, beverage containers, mercury thermostats, and most recently, electronics.

The Stakeholder Group's recommendations request pharmaceutical manufacturers and over-the-counter drug companies to voluntarily devise and implement a convenient and effective program for consumers to dispose of unwanted medicines. The industry can select the format: mail-back, drop box, a combination of the two, or another concept that the industry may choose to pursue. If the industry is unable or unwilling to move forward with such a program, the Stakeholder Group proposes that legislation requiring an industry-funded take back program be introduced in the 2009 Oregon Legislature.

Stakeholder Group members are currently in the process of seeking endorsements for its recommendations by participating organizations and other interested groups. Attachment C is the list of the organizations, including DEQ, that had endorsed the recommendations as of November 9, 2007.

The Stakeholder Group has also submitted a letter to the Federal Drug Enforcement Administration supporting waivers that Washington, California, and Maine have sought to allow controlled drugs to be included in their take back programs. Without such waivers, the federal Controlled Substances Act prohibits take back programs from accepting controlled substances unless done by law enforcement personnel.

**Next Steps** The work of the original stakeholder group is complete, and a new group, the Oregon Drug Take Back Action Group, has been created to promote the recommendations in the report and work with industry to encourage the voluntary establishment of a take back program. The Action Group will also draft model legislation for the 2009 legislature, if necessary.

**EQC Involvement** None anticipated at this time.

**Attachments** A. List of members of the Oregon Pharmaceutical Take Back Stakeholder Group.  
B. Oregon Pharmaceutical Take Back Stakeholder Group, Executive Summary.  
C. List of organizations that have endorsed the recommendations in the Final Report.

**Available Upon Request** Oregon Pharmaceutical Take Back Stakeholder Group, Final Report, July 1, 2007. This report and Attachments A-C above are available at:  
<http://www.deq.state.or.us/lq/pubs/docs/sw/hhw/PharmaceuticalTakeBackReport.pdf>

Approved:

Section: Loretta for Abby Boudouris

Division: Loretta Picciorell for Al Kiphut

Report Prepared By: Abby Boudouris  
Phone: 503-229-6108

## Attachment A

### STAKEHOLDER MEMBERSHIP Oregon Pharmaceutical Take Back Stakeholders Group

A select group of stakeholders were chosen to participate in the Stakeholder Group with each organization selecting their own representative to participate. Not all the groups identified as stakeholders participated in the group. In addition, interested parties also participated in the Stakeholder meetings. At the conclusion of the first meeting, additional stakeholders were identified and asked to participate.

FIRST	LAST	ORGANIZATION
Tony	Burt	Oregon Board of Pharmacy
Tom	Penpraze	City of Corvallis
Jim	Hill	Oregon Association of Clean Water Agencies (City of Medford)
Brett	Hulstrom	City of Portland Bureau of Environmental Services
Jeff	McLennan	Clackamas County Medical Examiner*
Linda	Fleming	Council of Local Public Health Officials*
Kelly	Champion	Covanta Marion*
Lis	Houchen	National Association of Chain Drug Stores
Kevin	Campbell	Oregon Association Chiefs of Police*
Abby	Boudouris	Oregon Department of Environmental Quality
Teresa	Huntsinger	Oregon Environmental Council
Ann	Jackson	Oregon Hospice Association
Tanya	Drayden	Oregon Poison Center
Lisbeth	Ward-Fowler	Oregon Poison Center (alternate)
Dave	Leland	Oregon Public Health Division – Drinking Water Program
Kristan	Mitchell	Oregon Refuse & Recycling Association
Holly	Sears	Oregon Refuse & Recycling Association (alternate)
Dave	Burright	Oregon Sheriff's Association*
Gerry	Migaki	Oregon Society of Health-System Pharmacists
Jim	Thompson	Oregon State Pharmacy Association
Rebecca	David	Oregon State Police
Michael	Dingeman	Oregon State Police
Lacey	Bettis	Oregon State Police (alternate)
Leslie	Wood	Pharmaceutical Research and Manufacturers of America (PhRMA)
Jim	Solvedt	Polk County (alternate)
Brenda	Bateman	Tualatin Valley Water District (Oregon Water Utilities Council)
Bill	Etter	U.S. Drug Enforcement Administration

\* Did not attend (remotely or in person) one or more meetings

## Attachment B

### *Oregon Pharmaceutical Take Back Stakeholder Group*

## EXECUTIVE SUMMARY

Complete report available at [www.oracwa.org](http://www.oracwa.org)

*In Clackamas County, a 40-year old mother of two died from an accidental overdose of Methadone. She was having difficulty sleeping and decided to try a family member's unused prescription drug left in her medicine cabinet.*

*Teenagers age 12 to 17 are the fastest-growing group of prescription drug abusers. They arrange "pharming parties" where they swap drugs found in their homes.*

*Drugs are being found in waterways nationwide; some of them reach the environment by being flushed down the toilet. One study showed male chinook salmon to be very susceptible to sex reversal.*

Unused drugs kept in medicine cabinets, tossed in the garbage, or flushed down the toilet or drain can be serious threats to human and environmental health. Drugs of concern include controlled and non-controlled prescription drugs, as well as over-the-counter medications. Drug take back programs -- government or industry programs where unused drugs are returned to designated sources -- reduce avoidable poisoning of both children and adults; prevent intentional misuse of unwanted prescription drugs, especially by teenagers; and protect water quality, fish and other aquatic species.

### ***Why Oregon Needs a Drug Take Back Program***

Based on industry estimates, 3% of the prescriptions written in the U.S. are unused. In Oregon, that translates to a possible 1,004,200 prescriptions unused annually in Oregon - 663,000 from residents and another 341,000 from long-term care facilities. Some of these unwanted and unused prescription drugs reach Oregon's environment. How do they get there? The majority is from people taking medicine and excreting it. However, studies show that because of inadequate disposal options, most people throw unused or unwanted drugs away -- either flushing them down the toilet, or disposing of them in

the household trash. Adult care facilities in Oregon serve about 35,000 people, and they typically flush unwanted or leftover medications down the drain.

### **Reduce Avoidable Poisonings**

Leftover drugs can result in the unintentional use of wrong or expired prescriptions by people of all ages, poisoning of children who get access to drugs, and poisoning of children and pets who find discarded medication in the trash. In 2004, the Oregon Poison Center received 28,734 calls for accidental poisonings of children under six years old, which represented 77% of the pediatric hospital visits in Oregon that year. Overall, drugs represent the most common poisoning

hazard, resulting in 50% of all avoidable poisoning calls.

### **Prevent Intentional Misuse of Drugs, Especially by Teenagers**

Misuse of unwanted prescription drugs is the nation's second prevalent drug problem, after marijuana use. From 2002 to 2004, Oregon had the third highest rate in the nation (10%) among youths for non-medical use of pain relievers. Oregon also ranks in the top five states with the highest prevalence of stimulant misuse for ages 12 years and older. Estimates show that the state of Oregon may have nearly 15,000 Emergency Room visits per year from the nonmedical use of drugs. These are often severe. In a national study, 33% of such emergencies resulted in the patient being sent to a critical care unit. Misuse can also result in dependence or abuse of a drug, and those at greatest risk are between the ages of 12 and 25. The Pacific Northwest ranks third in the nation for drug dependence and abuse.

### **Protect Water Quality**

In one national study of 139 streams in 30 states, drugs were found in 80% of the samples. The two biggest concerns of aquatic impacts are hormone disruption in fish and effects of antibiotics. In the Potomac River, male fish were discovered producing eggs. In Colorado, native fish populations in Boulder Creek showed significant endocrine disruption.

Drugs from households and care facilities reach waterways from excretion, flushing drugs down the toilet into sewers and septic systems, and trash disposal resulting in landfill leachate that reaches surface water or infiltrates groundwater. Some drugs can be treated at traditional wastewater treatment plants, but others cannot. While the majority of drugs enter the water through human excretion, a drug take back program is still an important step in reducing chemicals in the environment.

### ***The Work of the Drug Take Back Stakeholder Group***

A select group of Stakeholders, along with interested parties, formed the working group in October, 2006 to study the disposal of unwanted and unused drugs in Oregon. Stakeholders included a breadth of expertise ranging from law and drug enforcement; public water agencies; pharmaceutical groups; environmental organizations; medical, health care, recycling and poison center representatives; and city and county governments. The group focused on unwanted drug disposal from households and care facilities.

The Stakeholders researched and analyzed existing and proposed drug take back programs in other places including British Columbia, the states of Maine and Iowa, and efforts in other U.S. counties and areas. Methods of drug return range from prepaid mail-in envelopes to drop boxes at pharmacies or law enforcement agencies; the benefits and drawbacks of each were explored.

The Stakeholders' task was to create a proposed program for Oregon that is effective, fair, and economical, and includes both controlled and routine drugs. The program should also include education and outreach elements, needs to work in both urban and rural areas of the state, and must have a long-term funding base.

### ***Oregon Program and Funding Recommendations***

The Stakeholders' recommendation, endorsed by the majority of the group, is based on the successful, British Columbia Medications Return Program that has been in operation since 1996. There, an organization of pharmaceutical manufacturers known as the Post Consumer Stewardship Association organizes and finances the program. This is known as a Product Stewardship program.

Based on the success of the British Columbia program, estimates for Oregon indicate that approximately 60,000 pounds of unwanted drugs would be returned annually, including about 5,300 pounds of controlled drugs such as narcotics, Vicodin, Demerol, Ritalin, or Xanax. The majority of the group believes that this approach, which has been used by other industries in the U.S. and Canada, has the best potential for success. The American Pharmaceutical Research and Manufacturers of America (PhRMA) opposes the recommendations.

### **Program Proposal: Product Stewardship Program**

In a Product Stewardship Program, pharmaceutical manufacturers and over-the-counter drug companies would be requested to devise and implement a convenient and effective program for consumers to dispose of unwanted medicine. The industry can select the format -- mail-back, drop box, a combination of the two, or another concept that the industry may choose to pursue. In addition, the program for Oregon should seek federal Drug Enforcement Administration waivers (as Washington, California and Maine have already requested) to allow controlled drugs to be included.

Action by the 2007 Oregon Legislature included pharmaceutical take back programs as one program to examine to reduce toxics in Oregon's water. If the industry is unable to move forward with such a program, the Stakeholders propose that legislation requiring it be introduced in the 2009 Oregon Legislature.

### **Funding Proposal: Industry Funding**

The Stakeholders do not believe that the burden of this program should fall directly on consumers, nor be added as a hidden cost to the routine responsibilities of Oregon's law enforcement agencies. In 2005, the BC program collected 39,710 pounds of

unwanted drugs at a total cost of \$190,935 (U.S. dollars). The group recommends that the industry fund the program, although the Pharmaceutical Research and Manufacturers of America does not support this option.

The funding method proposed is similar to that in British Columbia and in the recycling of used batteries, mercury-containing thermostats, and electronic equipment in some states including Oregon. This option keeps the program financing directly related to the producers, users, and disposers of medications, instead of spreading the costs across the general public. A private sector system can be designed to be efficient and flexible.

### ***Drug Take Back -- A Simple, Safe Routine***

Take-back programs have become common, simple routines throughout Europe and Canada for a wide range of hazardous products including pharmaceuticals, automotive fluids, batteries, electronics, paint, solvents, tires and other products. They are becoming more commonplace in the U.S. Oregon already has a program in place for battery recycling and the Legislature recently passed an electronics recycling program. Take back programs for drugs are of even greater consequence. A proactive approach will help avoid poisonings and drug addiction, and is more cost-effective than treatment in both public health and pollution control.

A safe and secure program can make the collection and disposal of unused and unwanted drugs as easy and convenient as buying a bottle of aspirin or filling a doctor's prescription, while bringing benefits for the health of Oregonians and the environment.

July 2007



## Attachment C

### ORGANIZATIONS ENDORSING THE FINAL REPORT RECOMMENDATIONS

#### FOR OREGON'S PHARMACEUTICAL TAKE BACK PROGRAM

- ✧ Oregon Association of Clean Water Agencies (6/07)
- ✧ Oregon Society of Health System Pharmacists (8/07)
- ✧ Tri-County Water Resources Association (8/07)
- ✧ Tualatin Valley Water District (9/07)
- ✧ Bridlemile Neighborhood Creek Stewards (9/07)
- ✧ City of Eugene Wastewater Division (9/07)
- ✧ Regional Water Providers Consortium (9/07)
- ✧ Clean Water Services (9/07)
- ✧ Medford Water Commission (9/07)
- ✧ Tualatin River Watershed Council (9/07)
- ✧ Oregon Board of Pharmacy (10/07)<sup>1</sup>
- ✧ Corvallis First United Methodist Church (10/07)
- ✧ Lower Columbia River Estuary Partnership (10/07)
- ✧ Oregon Hospice Association (10/07)
- ✧ Oregon Center for Environmental Health (10/07)
- ✧ Oregon Department of Environmental Quality (11/07)

---

<sup>1</sup> Oregon Board of Pharmacy included provisions to its endorsement regarding the safe disposal of drugs of abuse, safe and environmentally sound disposal of unused drugs, and a feedback and evaluation process to be included in the program.

# Building an Oregon Drug Take Back Program

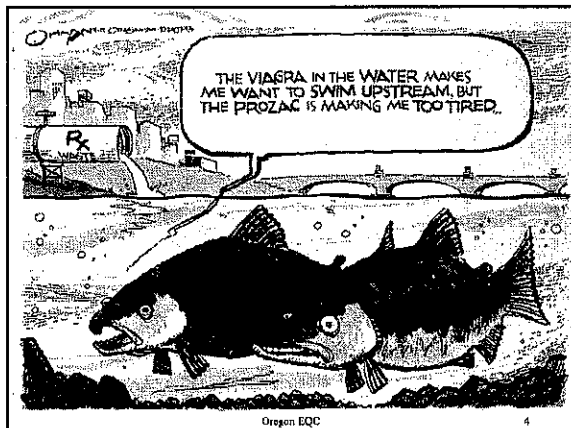
Environmental Quality Commission  
December, 2007

## Speaker Information

- Abby Boudouris
  - DEQ staff
- Tom Penpraze
  - City of Corvallis Public Works
  - Stakeholder Group Co-Chair
- Janet Gillaspie
  - ACWA Executive Director

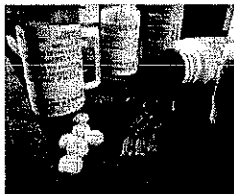
## Summary

- Why a drug take back program?
- Oregon Process
- Oregon Stakeholder Recommendations
- Next steps
- Possible EQC actions



## Why Drug Take Back?

- Reduce avoidable poisonings
  - Children & adults
- Prevent prescription drug abuse & addiction
  - Mostly teens
- Protect water quality



## Why?

- Reduce avoidable poisonings
  - Drug poisoning was 77% of the pediatric hospital visits in Oregon in 2004
  - In the US
    - Poisoning is 2<sup>nd</sup> leading cause of death for 35 – 54 year olds
    - 3<sup>rd</sup> leading cause for 25 – 34 year olds



## Why?

- Prevent prescription drug abuse & addiction
  - Prescription drugs only second to marijuana as nation's most prevalent drug problem
    - Average number of people using pain relievers non-medically for the first time exceeds new marijuana users
    - Young people get drugs from family and friends

Oregon EQC

7

## Why?

- USGS study found microcontaminants in 80% of the streams sampled
  - Can't distinguish between flushed and excreted
- Detected in landfill leachate
  - Landfills often connect to POTWs
- Industry estimates that 3 – 10% drugs unused
  - Of the unused, 20 – 35% flushed



Oregon EQC

8

## Sources of drugs

- Focus on households and term care facilities
  - Long Term Care
  - Adult Foster Care
  - Hospitals
  - Clinics
  - Homes



Oregon EQC

9

## Regulatory Challenges



- DEA Regulations
  - Controlled drugs can only be returned to law enforcement officer
    - OxyContin
    - Morphine
    - Ritalin
    - More...

Oregon EQC

10

## Developing an Oregon Drug Take Back Program



- Stakeholder group process
  - Graduate student for research
- Funded by
  - Oregon DEQ
  - ACWA
  - Oregon Water Utilities Council
  - Others...

Oregon EQC

11

## Developing an Oregon Drug Take Back Program

- Broad Stakeholder Group
  - Oregon Board of Pharmacy
  - Oregon DEQ
  - ACWA
  - Oregon State Pharmacist Assoc.
  - PhRMA
  - Oregon Water Utilities Council
  - Oregon State Police
  - Environmental public interest groups
  - Drug Enforcement Admin.
  - Others...



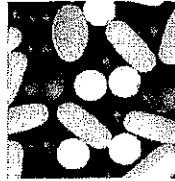
Oregon EQC

12

## Goals for Oregon Program

- ✓ Legal under Federal Drug Enforcement Administration regulations
  - ✦ Controlled substances
    - ✦ Chain of custody and tracking requirements
- ✓ Convenient and understandable for public
- ✓ Affordable
- ✓ Statewide

## Developing an Oregon Drug Take Back Program



- ✓ Stakeholder Group
  - ✦ Met from 10/06 to 7/07
  - ✦ Completed detailed research report
  - ✦ Developed Recommendations for Oregon program

## Building An Oregon Program



- ✓ Estimating 60,000 pounds of unwanted drugs annually in Oregon
  - ✦ Based on existing program in British Columbia

## British Columbia



- ✓ Medicines Return program
- ✓ Virtually all BC pharmacies participate
- ✓ In 2006, collected 44,000 pounds
  - ✦ \$257,000 CN
- ✓ No incidents in the 10 years of the program operation
- ✓ Most drug companies that serve BC, serve Oregon

## Recommendations

- ✓ Product stewardship model
  - ✦ Drug manufacturers (including generic) and over the counter
  - ✦ Develop and fund best program
    - ✦ Likely mail back
  - ✦ Might need 2009 Oregon legislation to ensure participation
    - ✦ Want to work with industry

## Options for an Oregon Program

- ✓ Drop Box at Pharmacy/ Law Enforcement
- ✓ Drop Box at Pharmacy/Mailer
- ✓ Law Enforcement Collection
- ✓ Oregon State Police Mailer
- ✓ Reverse Distributor Mailer
- ✓ Product Stewardship Model

## Drop Box at Pharmacy/ Law Enforcement

<p><b>Pros</b></p> <ul style="list-style-type: none"> <li>➤ Pharmacy drop off convenient for public</li> <li>➤ Allowable under DEA regulations</li> </ul>	<p><b>Cons</b></p> <ul style="list-style-type: none"> <li>➤ Expensive to establish &amp; operate</li> <li>➤ Added burden for law enforcement</li> <li>➤ Pharmacist time to sort controlled &amp; uncontrolled drugs</li> </ul>
---	--

Oregon EQC 19

## Drop Box at Pharmacy/Mailer

<p><b>Pros</b></p> <ul style="list-style-type: none"> <li>➤ Pharmacy drop off convenient for public</li> <li>➤ Allowable under DEA regulations</li> </ul>	<p><b>Cons</b></p> <ul style="list-style-type: none"> <li>➤ Added burden for law enforcement</li> <li>➤ Pharmacist time to sort controlled and uncontrolled drugs</li> </ul>
---	--

Oregon EQC 20

## Law Enforcement Collection

<p><b>Pros</b></p> <ul style="list-style-type: none"> <li>➤ Allowable under DEA regulations</li> </ul>	<p><b>Cons</b></p> <ul style="list-style-type: none"> <li>➤ Not convenient for public</li> <li>➤ Likely low participation</li> <li>➤ Burden on limited local resources</li> </ul>
--	---

Oregon EQC 21

## Oregon State Police Mailer

<p><b>Pros</b></p> <ul style="list-style-type: none"> <li>➤ Allowable under DEA regulations</li> </ul>	<p><b>Cons</b></p> <ul style="list-style-type: none"> <li>➤ Diverts resources from OSP primary mission</li> </ul>
--	---

Oregon EQC 22

## Reverse Distributor Mailer

<p><b>Pros</b></p> <ul style="list-style-type: none"> <li>➤ Convenient for public</li> <li>➤ Controlled &amp; uncontrolled mailed together</li> <li>➤ Cost effective</li> <li>➤ Easy to expand (long term care, hospices, vets, etc.)</li> <li>➤ Business interest</li> </ul>	<p><b>Cons</b></p> <ul style="list-style-type: none"> <li>➤ Need waiver from DEA</li> <li>➤ Needs cooperation and financial contract with commercial entity</li> </ul>
---	--

Oregon EQC 23

## Product Stewardship

<p><b>Pros</b></p> <ul style="list-style-type: none"> <li>➤ Industry organized and led</li> <li>➤ Efficient</li> <li>➤ Little/no government involvement</li> <li>➤ Could be model for other parts of the nation</li> </ul>	<p><b>Cons</b></p> <ul style="list-style-type: none"> <li>➤ Depends on industry to voluntarily organize and fund program</li> </ul>
--	---

Oregon EQC 24

## Funding Options

- ☛ Stakeholder Group considered:
  - ☛ Solid waste disposal fees
  - ☛ Pharmaceutical fees
  - ☛ Mix of solid waste and pharmaceutical fees
  - ☛ Tax on drinking water utilities
  - ☛ State General Fund
  - ☛ Industry funded

## Program Costs

	Drop Box & Law Enf.	Drop Box. & Mailer	Law Enforce.	OSP Mailer	Reverse Dist. Mailer
Calculated Program Costs Annually	\$658,403	\$825,806	\$1,322,666	\$835,195	\$566,398

## Summary

- ☛ Safe disposal of unwanted drugs a problem
- ☛ Landfilling unwanted drugs not the answer
- ☛ Product stewardship correct approach
- ☛ Request industry to tackle
  - ☛ Be prepared for Legislative action

## Model for Emerging Contaminants

- ☛ Leadership, collaboration with other stakeholders
  - ☛ Transparency
  - ☛ Clear communication
- ☛ Product stewardship model
  - ☛ Pollution prevention is answer
  - ☛ Increase public's awareness of chemical use

## Recommendation Endorsements

- ☛ Oregon DEQ
- ☛ Oregon ACWA
- ☛ Oregon Board of Pharmacy
- ☛ Oregon Society of Health-Systems Pharmacists
- ☛ Tri-County Water Resources Association
- ☛ Tualatin Valley Water District
- ☛ Oregon Center for Environmental Health
- Cities of Portland & Eugene
- Oregon Environmental Council
- Medford Water Commission
- Oregon Hospice Association
- Oregon Drinking Water Advisory Committee
- Clean Water Services
- Lower Columbia Estuary Partnership
- Tualatin River Watershed Council

## Final Stakeholders Report

- ☛ Includes detailed information
  - ☛ Regulatory framework
  - ☛ Other national programs
  - ☛ Research details
  - ☛ Stakeholder discussions
  - ☛ More...
- ☛ Available on ACWA web site
  - ☛ [www.oracwa.org](http://www.oracwa.org)

## Next Steps?

- Action Group Formed
- Formal request for program to industry
- Developing detailed 2009 Legislative request
  - Want industry involvement in crafting

# OREGON

## Pharmaceutical Take Back Stakeholder Group

Final Report  
July 1, 2007

Prepared by:  
Monica Hubbard  
PhD Candidate  
Oregon State University



---

# Table of Contents

<b>1</b>	<b>Executive Summary.....</b>	<b>1</b>
	WHY OREGON NEEDS A DRUG TAKE BACK PROGRAM .....	1
	THE WORK OF THE DRUG TAKE BACK STAKEHOLDER GROUP .....	2
	OREGON PROGRAM AND FUNDING RECOMMENDATIONS.....	2
	PROGRAM PROPOSAL: PRODUCT STEWARDSHIP PROGRAM .....	2
	FUNDING PROPOSAL: INDUSTRY FUNDING.....	3
	DRUG TAKE BACK -- A SIMPLE, SAFE ROUTINE .....	3
<b>2</b>	<b>Stakeholder Membership and Group Process .....</b>	<b>4</b>
2.1	PROJECT BACKGROUND.....	4
2.2	STAKEHOLDER MEMBERSHIP .....	5
2.3	GROUP PROCESS.....	6
<b>3</b>	<b>Background on Drug Take Back Programs .....</b>	<b>8</b>
3.1	PROBLEM STATEMENT .....	9
3.1.1	Reduce Avoidable Poisoning.....	10
3.1.2	Prevent Intentional Misuse, Dependence and Addiction of Prescription Drugs .....	10
3.1.2.1	Medical Treatment .....	12
3.1.2.2	Prescription Drug Dependence and Abuse.....	13
3.1.3	Protect Water Quality .....	14
3.1.4	Protect Aquatic Species.....	16
3.1.5	Protect Human Health.....	17
3.1.6	Economic Costs.....	17
<b>4</b>	<b>Regulatory Framework.....</b>	<b>19</b>
4.1	CONTROLLED SUBSTANCES ACT .....	19
4.2	HEALTH INSURANCE PORTABILITY AND ACCOUNTABILITY ACT.....	20
4.3	OREGON BOARD OF PHARMACY .....	20
4.4	RESOURCE CONSERVATION AND RECOVERY ACT .....	21
4.5	MAILING OF CONTROLLED SUBSTANCES.....	21
4.6	REGULATORY UNCERTAINTY .....	22
<b>5</b>	<b>Survey of Drug Take Back Programs.....</b>	<b>23</b>
5.1	STATE OF MAINE.....	23
5.2	CLARK COUNTY, WASHINGTON.....	24
5.3	SAN FRANCISCO AREA .....	25
5.4	WASHINGTON STATE PILOT: PHARMACEUTICALS FROM HOUSEHOLDS: A RETURN MECHANISM (PH-ARM).....	25
5.5	NEWBERG PILOT PROJECT WITH LONG TERM CARE FACILITIES .....	26
5.6	BRITISH COLUMBIA MEDICATIONS RETURN PROGRAM.....	26
5.7	SAN MATEO COUNTY, CALIFORNIA.....	27
5.8	STATE OF IOWA .....	27

---

<b>6</b>	<b>Oregon Program Options .....</b>	<b>28</b>
6.1	OPTION 1: INSTALLED PROGRAM – CONTROLLED DRUGS TAKEN TO LAW ENFORCEMENT .....	28
6.2	OPTION 2: INSTALLED PROGRAM – CONTROLLED DRUGS MAILED TO LAW ENFORCEMENT .....	30
6.3	OPTION 3: LOCAL LAW ENFORCEMENT DROP-OFF .....	31
6.4	OPTION 4: OREGON STATE POLICE MAILER .....	31
6.5	OPTION 5: REVERSE DISTRIBUTOR MAILER .....	33
6.6	OPTION 6: PRODUCT STEWARDSHIP .....	34
6.7	SUMMARY OF OREGON PROGRAM OPTION COST ESTIMATES.....	35
6.8	SUMMARY OF PROGRAMS BENEFITS AND BURDENS.....	37
<b>7</b>	<b>Subgroup Findings .....</b>	<b>38</b>
7.1	ADULT CARE FACILITIES – PROGRAM DESIGN SUGGESTIONS .....	38
7.1.1	Subgroup Membership.....	38
7.1.2	Overview.....	38
7.1.3	Adult Care Facilities – Basic Information.....	38
7.1.4	Key Considerations.....	39
7.1.5	Preferred Model.....	40
7.1.6	Education and Outreach Programs.....	40
7.2	HOSPITALS: DRUG-TAKE BACK NEEDS AND OPPORTUNITIES .....	41
7.2.1	Team Members.....	41
7.2.2	Initial Assessment of Management of Pharmaceuticals in Hospitals.....	41
7.2.3	Potential Gaps in Current Hospital Pharmaceutical Management.....	42
7.2.4	Recommended Next Steps .....	42
7.3	HOSPICE.....	43
7.4	PUBLIC GROUP .....	44
<b>8</b>	<b>Oregon Program Funding Options.....</b>	<b>45</b>
8.1	OREGON PROGRAM FUNDING: YEAR ONE .....	45
8.2	OREGON PROGRAM FUNDING: ONGOING YEARS .....	45
8.2.1	Option 1: Solid Waste Disposal Fee .....	45
8.2.2	Option 2: Pharmaceutical Fees.....	47
8.2.3	Option 3: Mix of Solid Waste Disposal and Pharmaceutical Fees.....	48
8.2.4	Option 4: State General Fund.....	48
8.2.5	Option 5: Surcharge on Wastewater or Drinking Water Utilities bills.....	48
8.2.6	Option 6: Per Prescription Fee .....	48
8.2.7	Option 7: Product Stewardship .....	49
<b>9</b>	<b>Oregon Program and Funding Recommendations .....</b>	<b>50</b>
9.1	PROPOSAL.....	51
9.2	FUNDING.....	51
9.3	ADDITIONAL RECOMMENDATIONS .....	51

---

<b>10</b>	<b>Appendices.....</b>	<b>52</b>
10.1	APPENDIX A: CHARTER.....	52
10.2	APPENDIX B: STAKEHOLDER MEETING SUMMARIES.....	55
10.2.1	Meeting 1: November 9, 2006 .....	55
10.2.2	Meeting 2: February 9, 2007 .....	60
10.2.3	Meeting 3: March 9, 2007 .....	65
10.2.4	Meeting 4: April 13, 2007 .....	71
10.2.5	Meeting 5: May 11, 2007.....	77
10.2.6	Meeting 6: June 15, 2007.....	84
10.2.7	Meeting 7: July 13, 2007 .....	89
10.3	APPENDIX B: LITERATURE REVIEW: OCCURRENCE AND FATE OF PHARMACEUTICAL COMPOUNDS IN LANDFILL LEACHATE .....	94
10.4	APPENDIX C: POTENTIAL GRANT OPTIONS FOR YEAR 1 FUNDING.....	105
10.4.1	State.....	105
10.4.2	Federal.....	105
10.4.3	Private.....	107
<b>11</b>	<b>References .....</b>	<b>108</b>

# 1 Executive Summary

Unused drugs kept in medicine cabinets, tossed in the garbage, or flushed down the toilet or drain can be serious threats to human and environmental health. Drugs of concern include controlled and noncontrolled prescription drugs, as well as over-the-counter medications. Drug take back programs -- government or industry programs where unused drugs are returned to designated sources -- reduce avoidable poisoning of both children and adults; prevent intentional misuse of unwanted prescription drugs, especially by teenagers; and protect water quality, fish and other aquatic species.

## *Why Oregon Needs a Drug Take Back Program*

Based on industry estimates, 3% of the prescriptions written in the US are unused. In Oregon, that translates to a possible 1,004,200 prescriptions unused annually in Oregon - 663,000 from residents and another 341,000 from long-term care facilities. Some of these unwanted and unused prescription drugs reach Oregon's environment. How do they get there? The majority is from people taking medicine and excreting it. However, studies show that because of inadequate disposal options, most people throw unused or unwanted drugs away -- either flushing them down the toilet, or disposing of them in the household trash. Adult care facilities in Oregon serve about 35,000 people, and they typically flush unwanted or leftover medications down the drain.

### **Reduce Avoidable Poisonings**

Leftover drugs can result in the unintentional use of wrong or expired prescriptions by people of all ages, poisoning of children who get access to drugs, and poisoning of children and pets who find discarded medication in the trash. In 2004, the Oregon Poison Center received 28,734 calls for accidental poisonings of children under six years old, which represented 77% of the pediatric hospital visits in Oregon that year. Overall, drugs represent the most common poisoning hazard, resulting in 50% of all avoidable poisoning calls.

### **Prevent Intentional Misuse of Drugs, Especially by Teenagers**

Misuse of unwanted prescription drugs is the nation's second prevalent drug problem, after marijuana use. From 2002 to 2004, Oregon had the third highest rate in the nation (10%) among youths for non-medical use of pain relievers. Oregon also ranks in the top five states with the highest prevalence of stimulant misuse for ages 12 years and older. Estimates show that the state of Oregon may have nearly 15,000 Emergency Room visits per year from the nonmedical use of drugs. These are often severe. In a national study, 33% of such emergencies resulted in the patient being sent to a critical care unit. Misuse can also result in dependence or abuse of a drug, and those at greatest risk are between the ages of 12 and 25. The Pacific Northwest ranks third in the nation for drug dependence and abuse.

### **Protect Water Quality**

In one national study of 139 streams in 30 states, drugs were found in 80% of the samples. The two biggest concerns of aquatic impacts are hormone disruption in fish and effects of antibiotics. In the Potomac River, male fish were discovered producing eggs. In Colorado, native fish populations in Boulder Creek showed significant endocrine disruption.

Drugs from households and care facilities reach waterways from excretion, flushing drugs down the toilet into sewers and septic systems, and trash disposal resulting in landfill leachate that reaches surface water or infiltrates groundwater. Some drugs can be treated at traditional wastewater treatment plants, but others cannot. While the majority of drugs enter the water through human excretion, a drug take back program is still an important step in reducing chemicals in the environment.

### *The Work of the Drug Take Back Stakeholder Group*

A select group of Stakeholders, along with interested parties, formed the working group in October, 2006 to study the disposal of unwanted and unused drugs in Oregon. Stakeholders included a breadth of expertise ranging from law and drug enforcement; public water agencies; pharmaceutical groups; environmental organizations; medical, health care, recycling and poison center representatives; and city and county governments. The group focused on unwanted drug disposal from households and care facilities.

The Stakeholders researched and analyzed existing and proposed drug take back programs in other places including British Columbia, the states of Maine and Iowa, and efforts in other U.S. counties and areas. Methods of drug return range from prepaid mail-in envelopes to drop boxes at pharmacies or law enforcement agencies; the benefits and drawbacks of each were explored.

The Stakeholders' task was to create a proposed program for Oregon that is effective, fair, and economical, and includes both controlled and routine drugs. The program should also include education and outreach elements, needs to work in both urban and rural areas of the state, and must have a long-term funding base.

### *Oregon Program and Funding Recommendations*

The Stakeholders' recommendation, endorsed by the majority of the group, is based on the successful, British Columbia Medications Return Program that has been in operation since 1996. There, an organization of pharmaceutical manufacturers known as the Post Consumer Stewardship Association organizes and finances the program. This is known as a Product Stewardship program.

Based on the success of the British Columbia program, estimates for Oregon indicate that approximately 60,000 pounds of unwanted drugs would be returned annually, including about 5,300 pounds of controlled drugs such as narcotics, Vicodin, Demerol, Ritalin, or Xanax.

The majority of the group believes that this approach, which has been used by other industries in the U.S. and Canada, has the best potential for success. The Pharmaceutical Research and Manufacturers of America (PhRMA) opposes the recommendations.

### *Program Proposal: Product Stewardship Program*

In a Product Stewardship Program, pharmaceutical manufacturers and over-the-counter drug companies would be requested to devise and implement a convenient and effective program for consumers to dispose of unwanted medicine. The industry can select the format -- mail-back, drop box, a combination of the two, or another concept that the industry may choose to pursue. In addition, the program for Oregon should seek federal Drug Enforcement Administration waivers (as Washington, California and Maine have already requested) to allow controlled drugs to be included.

Action by the 2007 Oregon Legislature included pharmaceutical take back programs as one program to examine to reduce toxics in Oregon's water. If the industry is unable to move forward with such a program, the Stakeholders propose that legislation requiring it be introduced in the 2009 Oregon Legislature.

### *Funding Proposal: Industry Funding*

The Stakeholders do not believe that the burden of this program should fall directly on consumers, nor be added as an additional hidden cost to the routine responsibilities of Oregon's law enforcement agencies. In 2005, the BC program collected 39,710 pounds of unwanted drugs at a total cost of \$190,935 (U.S. dollars). The group recommends that the industry fund the program, although the Pharmaceutical Research and Manufacturers of America does not support this option.

The funding method proposed is similar to that in British Columbia and in the recycling of used batteries, mercury-containing thermostats, and electronic equipment in some states including Oregon. This option keeps the program financing directly related to the producers, users, and disposers of medications, instead of spreading the costs across the general public. A private sector system can be designed to be efficient and flexible.

### *Drug Take Back -- A Simple, Safe Routine*

Take-back programs have become common, simple routines throughout Europe and Canada for a wide range of hazardous products including pharmaceuticals, automotive fluids, batteries, electronics, paint, solvents, tires and other products. They are becoming more commonplace in the U.S. Oregon already has a program in place for battery recycling and the Legislature recently passed an electronics recycling program. Take back programs for drugs are of even greater consequence. A proactive approach will help avoid poisonings and drug addiction, and is more cost-effective than treatment in both public health and pollution control.

A safe and secure program can make the collection and disposal of unused and unwanted drugs as easy and convenient as buying a bottle of aspirin or filling a doctor's prescription, while bringing benefits for the health of Oregonians and the environment.

## 2 Stakeholder Membership and Group Process

### 2.1 Project Background

In April of 2006, the federal Drug Enforcement Administration (DEA) organized a two-day conference in Portland, Oregon focused on *End User Drug Disposal*. A variety of national and regional experts in drug disposal issues attended and made presentations including:

- Kenneth Magee, DEA Seattle Field Division, Portland District Office;
- John Cavendish, Office of Diversion Control, DEA – Headquarters;
- Dr. Christian Daughton, Environmental Sciences Division, EPA Office of Research and Development;
- Dr. Stevan Gressitt, Maine Benzodiazepine Study Group;
- Jeff McLennan, Clackamas County Medical Officer;
- Gary Schnabel, Oregon Board of Pharmacy; and
- Others.

Regional experts from the state of Washington—including both the Clark County program and the Washington *Pharmaceuticals from Households: A Return Mechanism* (PH:ARM) program—attended, along with Department of Environmental Quality staff, municipalities, and others.

At the conclusion of the conference, Oregon participants continued to discuss how an Oregon statewide drug take back program might be structured. State and local governments funded a collaborative effort to gather stakeholders interested in an Oregon pharmaceutical take-back program, and to staff the group to develop a consensus set of recommendations.

The funding agencies for this stakeholder process included:

- Oregon Department of Environmental Quality;
- Oregon Association of Clean Water Agencies;
- Oregon Water Utilities Council;
- Eugene Water and Electric Board;
- City of Eugene – Pollution Prevention Program;
- City of Springfield – Pollution Prevention Program;
- Tualatin Valley Water District;
- Sunrise Water Authority; and
- City of Bend.

## 2.2 Stakeholder Membership

A select group of stakeholders were chosen to participate in the Stakeholder Group with each organization selecting their own representative to participate. Not all the groups identified as stakeholders participated in the group. In addition, interested parties also participated in the Stakeholder meetings. At the conclusion of the first meeting, additional stakeholders were identified and asked to participate. Stakeholders and interested parties are listed in Table 2.2a and Table 2.2b.

Table 2.2a: Drug Take Back Stakeholders

FIRST	LAST	ORGANIZATION
Tony	Burt	Oregon Board of Pharmacy
Tom	Penpraze	City of Corvallis
Jim	Hill	Oregon Association of Clean Water Agencies (City of Medford)
Brett	Hulstrom	City of Portland Bureau of Environmental Services
Jeff	McLennan	Clackamas County Medical Examiner*
Linda	Fleming	Council of Local Public Health Officials*
Kelly	Champion	Covanta Marion*
Lis	Houchen	National Association of Chain Drug Stores
Kevin	Campbell	Oregon Association Chiefs of Police*
Abby	Boudouris	Oregon Department of Environmental Quality
Teresa	Huntsinger	Oregon Environmental Council
Ann	Jackson	Oregon Hospice Association
Tanya	Drayden	Oregon Poison Center
Lisbeth	Ward-Fowler	Oregon Poison Center (alternate)
Dave	Leland	Oregon Public Health Division – Drinking Water Program
Kristan	Mitchell	Oregon Refuse & Recycling Association
Holly	Sears	Oregon Refuse & Recycling Association (alternate)
Dave	Burright	Oregon Sheriffs' Association*
Gerry	Migaki	Oregon Society of Health-System Pharmacists
Jim	Thompson	Oregon State Pharmacy Association
Rebecca	David	Oregon State Police
Michael	Dingeman	Oregon State Police
Lacey	Bettis	Oregon State Police (alternate)
Leslie	Wood	Pharmaceutical Research and Manufacturers of America (PhRMA)
Jim	Solvedt	Polk County (alternate)
Brenda	Bateman	Tualatin Valley Water District (Oregon Water Utilities Council)
Bill	Etter	U.S. Drug Enforcement Administration

\* Did not participate or attend one meeting or more, either by the phone or in person



Table 2.2b: Drug Take Back Interested Parties

FIRST	LAST	ORGANIZATION
Margo	Barnett	
Darcy	Hitchcock	Axis Performance
Theresa	Briggs	City of Bend
Peter	Ruffier	City of Eugene
Sharon	Olson	City of Eugene
Karen	DeBaker	Clean Water Services
Marney	Jett	Clean Water Services
Paul	Larsen	Consumer Healthcare Products Association
Bruce	Hammon	Department of Environmental Quality
Jennifer	Boudin	Department of Environmental Quality
Pamela	Brody-Heine	Eco Stewardship Strategies
Karl	Morgenstern	Eugene Water & Electric Board
Nancy	Toth	Eugene Water & Electric Board
Jim	Gardner	Gardner & Gardner
Bruce	Lott	Generic Pharmaceutical Association (GPhA)
Jennifer	Seely	Kaiser Permanente NW
Sarah	Chaplen	League of Women Voters
Jill	Leary	Lower Columbia River Estuary Partnership
Jeff	Bickford	Marion County Public Works
Kim	Dinan	Marion County Public Works
Scott	Klag	Metro
David	Stitzhal	Northwest Product Stewardship Council
Shawn	Miller	Oregon Community Pharmacy
Amy	Parmenter	Oregon Department of Human Services
Robert	Bailey	Oregon Department of Human Services
Michael	Stupfel	Oregon State Police
Monica	Hubbard	Oregon State University
Debra	Taevs	Pollution Prevention Resource Center
Lorna	Stickel	Portland Water Bureau
Rebecca	Geisen	Portland Water Bureau
Sego	Jackson	Snohomish County Solid Waste Management Division
John	Thomas	Sunrise Water Authority
Kim	Anderson	Sunrise Water Authority
Elena	Nilsen	U.S. Geological Survey (USGS)
Larry	Chalfan	Zero Waste Alliance

### 2.3 Group Process

Initially the stakeholder group reviewed, modified, and accepted a charter to guide its process at the first meeting. A copy of the adopted charter is included in Appendix A. Stakeholders and interested parties met for the first time on November 9, 2006. Also in November 2006, many in the group participated in a daylong workshop to learn about drug take back programs and regulatory issues.

Additional meetings of the Stakeholder group included:

- February 9, 2007
- March 9, 2007
- April 13, 2007
- May 11, 2007
- June 15, 2007
- July 13, 2007

**Meeting summaries located in Appendix B.**

Three sub-groups were formed out of the larger stakeholder group to develop detailed recommendations for the major sources of unwanted drugs including, Adult Care Facilities (also known as Long Term Care Facilities), hospitals, and the general public. In addition, Oregon Hospice provided input recommendations for Oregon hospice facilities. The Adult Care Facilities and Hospital groups' findings are detailed in section 7. The general public recommendations were never finalized.

### *3 Background on Drug Take Back Programs*

While many countries and provinces, including Australia and British Columbia, Canada, have a pharmaceutical take back or return system, neither the United States federal government nor the State of Oregon are served by a program. Unused drugs are typically stored and stockpiled in residents' medicine chests in the home, where children or adults can accidentally ingest them. Additionally, due to their accessibility they can lead to prescription drug misuse, abuse and addiction. With the legal restrictions associated with controlled drugs, like OxyContin<sup>®</sup>, pharmacies are not legally able to take back many unneeded drugs.

Controlled drugs are drugs, or other substances, included in Schedule I, II, III, IV, or V of Title 21, Code of Federal Regulations (CFR), Sections 1308.11 to 1308.15 (National Archives and Records Administration 2004; Office of Diversion Control 2006). Any substance not on the schedules are noncontrolled (Bateman, Thonstad, and Danicic 2007).

There are numerous sources of unwanted pharmaceutical drugs that can lead to water contamination: residential homes, adult or long term care facilities, health care facilities such as clinics and hospitals, veterinarian clinics, and agricultural operations. As displayed in figure 3, the two main paths pharmaceutical drugs enter the aquatic environment from households are excretion after use or disposal before ingestion via the trash and or the sewer and septic systems, usually after being flushed down the toilet (Daughton and Ternes 1999; U.S. Environmental Protection Agency 2006; Kostich and Lazorchak 2006).

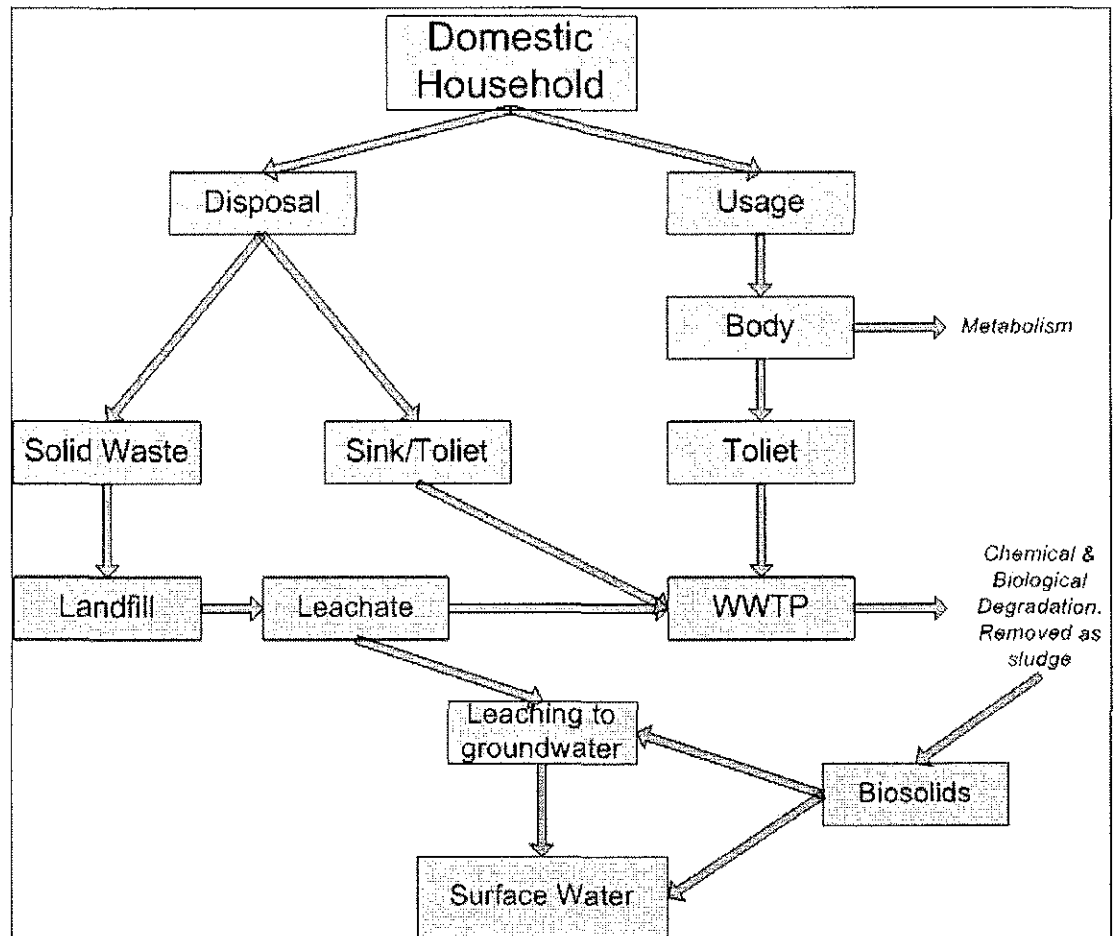
A 1993 investigation into the disposal habits of the public found that only 1.4% of people surveyed returned unused medication to the pharmacy, whereas 54% threw them away and 35.4% disposed of them in the sink/toilet (Kuspis and Krenzelok 1996). A survey conducted as part of the San Francisco Bay Area's Safe Medicine Disposal Days in May 2006 found that of the more than 1,500 residents that participated, more than 25% had previously disposed of medication down the sanitary sewer, while close to half previously disposed of medication in the trash (Bay Area Pollution Prevention Group, 2006). While it is unknown how many of the pharmaceutical compounds found in the aquatic environment are from improper disposal before use or excretion after use, it is presumed the majority is from excretion after use.

At a May 22, 2007 convention in California, the pharmaceutical industry presented that, according to their best estimate, about 3% of prescribed drugs are unused and disposed of via the trash or sewer (Buzby 2007). Of that, they estimate about 66% is attributed to individual use, while the remaining 34% of unused drugs are from long term care facilities (Buzby 2007). Since Oregon accounts for about 1% of the United States prescribed drugs<sup>1</sup> with 33,473,641 prescriptions in 2005 (Henry F. Kaiser Family Foundation 2007), using the pharmaceutical industry's estimated rate of disposal of 3%, potentially 1,004,209 unused pharmaceutical prescriptions are disposed in Oregon. Furthermore, using the pharmaceutical industry's estimates, about 662,778 unused pharmaceutical prescriptions potentially released into Oregon's environment could come from residents and 341,431 from long term care facilities.

---

<sup>1</sup> In 2005 there were an estimated 3,192,641,028 prescriptions in the United States, of which Oregon accounted for 33,473,641, which equates to 1%.

Figure 3: Pharmaceutical pathway into surface water.<sup>2</sup> (Adapted from Bound and Voulvoulis 2005).



### 3.1 Problem Statement

Many Oregon households, adult care facilities, and health care facilities possess unused and outdated prescription and over-the-counter drugs. Often these medications are stockpiled in a cabinet, creating potential safety and environmental problems; issues that will only increase with the ageing population and increase in pharmaceutical drug use. From 2005 to 2006, the number of pharmaceutical prescriptions increased by 4.3% in the United States (National Association of Chain Drug Stores 2007).

The three key reasons Oregon should develop a successful pharmaceutical take-back program are to:

1. Reduce avoidable poisonings;
2. Prevent prescription drug misuse and abuse; and
3. Protect water quality, which subsequently protects drinking water and the health of aquatic species.

<sup>2</sup> WWTP: wastewater treatment plant.

The main goal of the pharmaceutical drug return program is to provide a disposal method to reduce unwanted pharmaceutical drug availability, and thus reduce accidental poisonings and intentional drug abuse. Since it's impossible to quantify the extent a program will reduce the pharmaceutical compounds in water, the protection of water quality is both a precautionary step, and to raise the general public's awareness of the water quality issues.

### 3.1.1 REDUCE AVOIDABLE POISONING

Unused or unwanted drugs can lead to serious health and safety problems, including:

- Unintentional use of wrong prescriptions;
- Unintentional poisoning of children in the home; and
- Unintentional poisoning of children and pets that find discarded medication in the trash.

In 2004 the Oregon Poison Center (OPC), the designated regional poison center for Oregon, Alaska, Northern Nevada and Guam, received 71,677 calls for assistance; 76% of the calls were regarding human exposure to poison and the rest for information or animal exposures.<sup>3</sup> Pediatric (under 6 years of age) accidental poisoning represented 52% of the calls, with 28,734 cases. Pharmaceutical drugs were the most common category of exposure, resulting in 50% of the accidental poisoning calls, and represented the most serious poisoning incidents. Poisoning from pharmaceutical drugs were 85% of the 11,393 calls that required hospital visits in 2004. Poisoning with pharmaceutical drugs resulted 77% of the pediatric hospital visits in Oregon in 2004 (Oregon Poison Center 2004). Within the United States, unintentional poisoning deaths are the second leading cause of injury death for 35-54 year olds and the third leading cause of injury death for 25-34 year olds (Health Resources and Services Administration 2007).

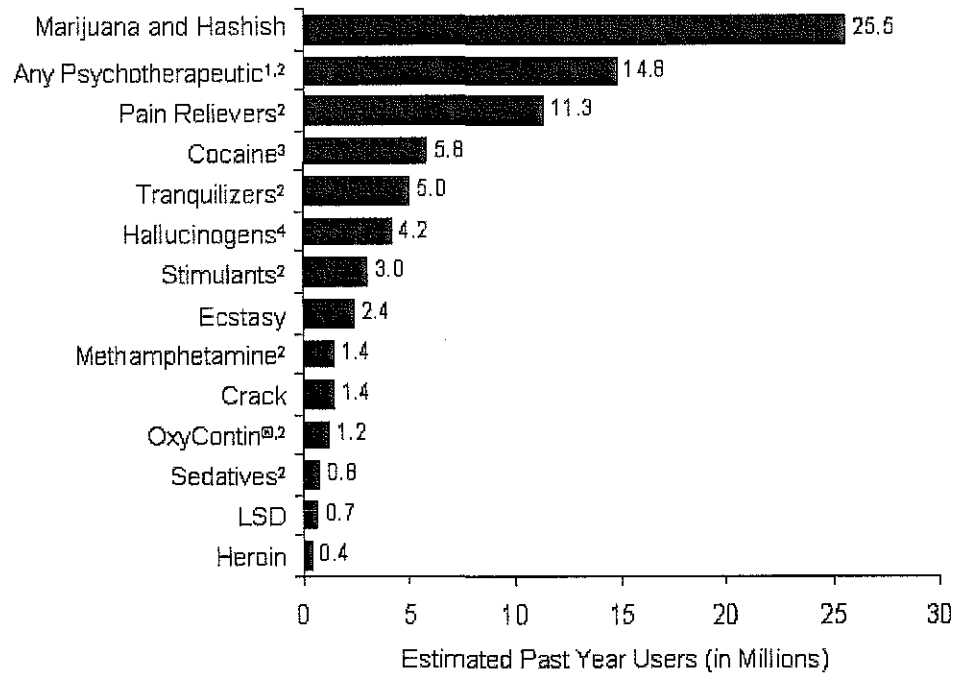
### 3.1.2 PREVENT INTENTIONAL MISUSE, DEPENDENCE AND ADDICTION OF PRESCRIPTION DRUGS

Intentional '*nonmedical*' abuse of pharmaceutical drugs by youths, categorized as ages 12 to 17, has become an increasingly disturbing issue. *Nonmedical* use is defined by the National Surveys on Drug Use and Health (US Substance Abuse and Mental Health Service Administration 2005) Department of as use of these medications without a prescription of the respondent's own or simply for the experience or feeling the drug caused. Thus, nonmedical use does not include legitimate use of prescription drugs under a physician's direction, nor does it include use of over-the-counter medications. While misuse of prescription drugs is second only to marijuana as the nation's most prevalent drug problem (see figure 3.1.2.a), the annual average number of people using pain relievers nonmedically for the first time exceeds the number of new marijuana users (Colliver *et al.* 2006). During the years 2002-2004 Oregon had the third highest rate (10%) among youths for nonmedical use of pain relievers; the highest rates were in Washington (10.7%) and Kentucky (10.2%). Oregon also ranks in the top five states with the highest prevalence of stimulant misuse for ages 12 years and up (Colliver *et al.* 2006).

---

<sup>3</sup> Statistics are for the Oregon Poison Center region, and include Guam, Oregon, Alaska, and Northern Nevada,

Figure 3.1.2.a: Past Year Users of Selected Drugs, Including Nonmedical Users of Prescription Psychotherapeutic Drugs: Annual Averages Based on 2002-2004 (Colliver *et al.* 2006)<sup>4</sup>

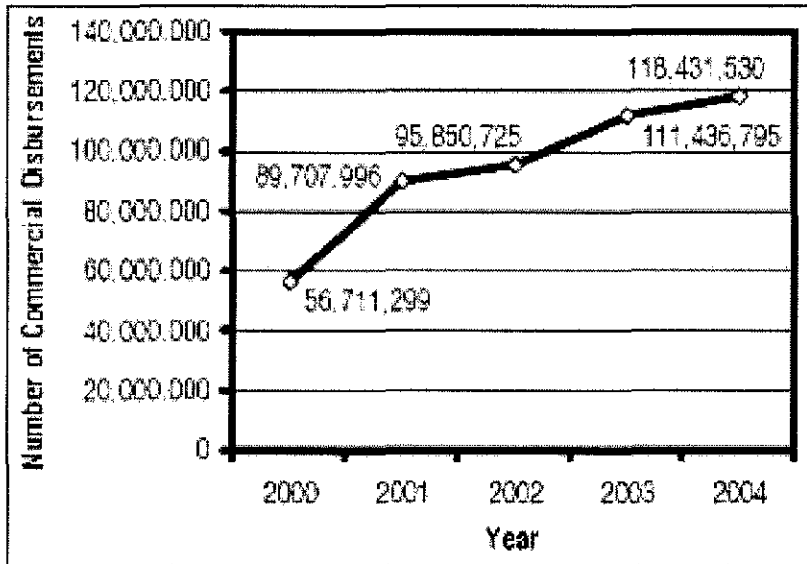


The increase in nonmedical misuse of prescription drugs can potentially be attributed to the sharp increase in commercial disbursements of controlled pharmaceuticals (prescription narcotics, depressants, and stimulants) around the nation, which has led to an overall increase of drugs available of illicit use. According to National Drug Intelligence Center's National Drug Threat Assessment of 2006, from 2000 through 2004 commercial disbursements of pharmaceuticals increased 109%, yet during that same period commercial disbursements of commonly abused pharmaceuticals, such as oxycodone and hydrocodone, increased at an even greater rate of 209%, see figure 3.1.2.b. While the assessment also found that overall illegal diversion is primarily conducted through theft, forged prescriptions, doctor shopping, and via the Internet; most young people aged 12 to 17 get these drugs from friends or family members for free, not the Internet (Substance Abuse and Mental Health Services Administration 2006).

<sup>4</sup> Explanation of chart footnotes:

- <sup>1</sup> Includes pain relievers, tranquilizers, stimulants, and sedatives.
- <sup>2</sup> Nonmedical use only. OxyContin<sup>®</sup> also is included with pain relievers, and methamphetamine also is included with stimulants. The OxyContin<sup>®</sup> estimate is based on 2004 data only.
- <sup>3</sup> Includes crack.
- <sup>4</sup> Includes lysergic acid diethylamide (LSD), phencyclidine (PCP), and Ecstasy.

Figure 3.1.2.b: Commercial disbursements of commonly abused pharmaceuticals, United States, 2000-2004 (Colliver *et al.* 2006)<sup>5</sup>.



### 3.1.2.1 MEDICAL TREATMENT

Nonmedical use of prescription drugs can result in unintended, costly medical emergencies. The Drug Abuse Warning Network (DAWN) is a public health system that monitors drug related visits to hospital emergency rooms and drug related deaths in the United States. DAWN defines “medical use” as taking a prescription or over-the-counter pharmaceutical as prescribed or recommended, and “nonmedical use” as use that does not meet the definition of medical use. Thus, nonmedical use of pharmaceuticals includes taking more than the prescribed dose of a prescription pharmaceutical or more than the recommended dose of an over-the-counter pharmaceutical or supplement; taking a pharmaceutical prescribed for another individual; deliberate poisoning with a pharmaceutical by another person; and documented misuse or abuse of a prescription or over-the-counter pharmaceutical or dietary supplement. Nonmedical use of pharmaceuticals may involve pharmaceuticals alone or pharmaceuticals in combination with illicit drugs or alcohol. It’s important to note that DAWN cannot distinguish between those cases of illicit use from the cases where a patient is provided drugs and accidentally overdoses.

According to the DAWN 2005 annual report, there were an estimated 598,542 emergency department visits in the United States for nonmedical use of pharmaceuticals, and could be as many as 710,314<sup>6</sup>; a 21% increase from 2004 (Ball, Johnson, and Foley 2005). Of those, 20% involved a combination of drugs with alcohol, 20% involved a combination of pharmaceuticals and illicit drugs, and 6% involved pharmaceuticals, illicit drugs and alcohol. DAWN estimates about 404 visits per a population of 100,000. Thus, the state of Oregon, with an estimated

<sup>5</sup> Commonly abused pharmaceuticals include codeine, methylphenidate, oxycodone, hydromorphone, hydrocodone, meperidine, methadone, morphine, fentanyl, cocaine, d-methamphetamine, d-amphetamine, and dl-amphetamine.

<sup>6</sup> DAWN cases are identified through a retrospective review of medical charts. Given the limitations of medical record documentation, DAWN concluded that distinguishing misuse from abuse reliably is not feasible.

population of 3,690,505 in 2006 (Population Research Center 2006), could have an estimated 14,910 emergency department visits per year for nonmedical use of pharmaceuticals. It should be noted that this is an estimate, and data is currently not available to know the exact number of emergency room visits for Oregon, and whether or not they were for illicit pharmaceutical use, or prescribed medication.

Using national estimates, in 55% of the visits, patients were treated and released, with 88% of those discharged home and 8% referred to a detoxification clinic or substance abuse treatment. In 33% of all nonmedical use visits, patients were admitted to inpatient hospital units. Of those admitted to the hospital, 33% were sent to a critical care unit, about 15% to a psychiatric unit, and 48% to other inpatient units. About 7% of emergency department visits for nonmedical use of pharmaceuticals resulted in transfers to another health care facility (Ball, Johnson, and Foley 2005).

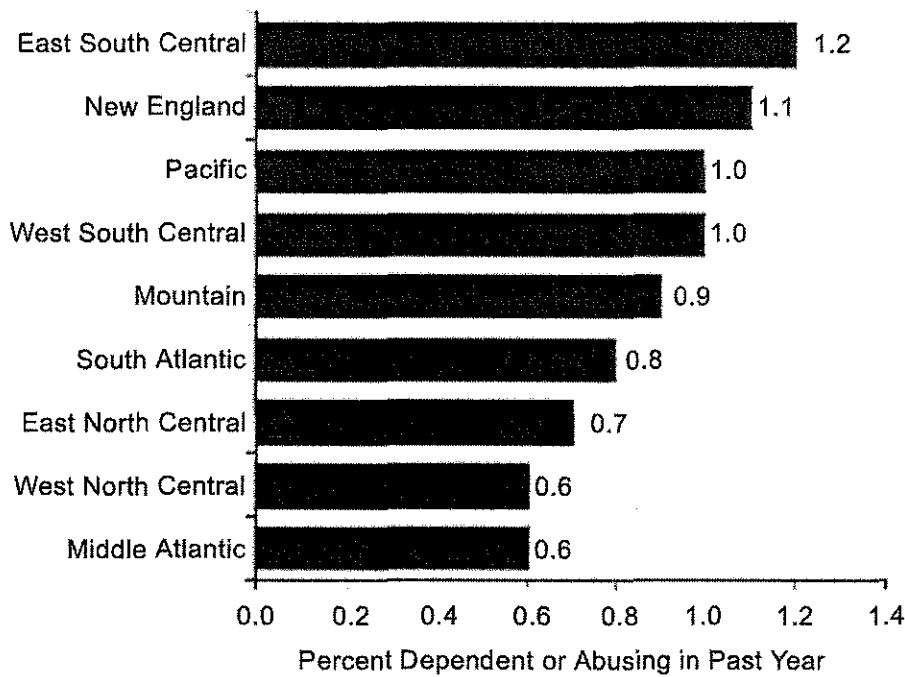
Lack of documentation inside medical records makes it impossible to determine whether or not the abused drug was prescribed or obtained illegally. Additionally, it is not possible to ascertain whether or not some of individuals included in the data are actually abusing prescription drugs, or patients that may have purposely taken more than the prescribed amount of medication for treatment.

### 3.1.2.2 PRESCRIPTION DRUG DEPENDENCE AND ABUSE

Misuse can pass a threshold and result in dependence or abuse of a prescription drug. Within the *Diagnostic and Statistical Manual of Mental Disorders*, 4<sup>th</sup> edition (DSM-IV) (Colliver *et al.* 2006), the questions to determine drug dependence ask about continued use despite health or emotional problems associated with substance use, unsuccessful attempts to cut down on use, tolerance, withdrawal symptoms, reducing other activities in order to use substances, spending time engaging in activities related to substance use, or using the substance in greater quantities or for a longer time than intended. The questions regarding abuse focus on problems at work, home, and school; problems with family or friends; physical danger; and trouble with the law due to substance use. Those at greater risk of abusing or becoming dependent are between the ages of 12 to 25. In the United States, an estimated 2 million people are either dependent or abusing prescription drugs. The Pacific Region of the United States, where Oregon is located, ranks third in the nation for drug dependence and abuse; see figure 3.1.2.2. Other states included in the Pacific Region include Alaska, California, Hawaii, and Washington.



Figure 3.1.2.2: Substance Dependence or Abuse for Nonmedical Use of Any Prescription Psychotherapeutic Drug in the Past Year, by Census Division: Annual Averages Based on 2002-2004 (Colliver *et al.* 2006).



Nationwide in 2002, 2003, and 2004, an annual average of 290,000 persons received treatment for illicit drug use in the past year and met the criteria for dependence on or abuse of prescription psychotherapeutic drugs in the past year (Colliver *et al.* 2006).

### 3.1.3 PROTECT WATER QUALITY

The two main paths pharmaceutical drugs enter the water system from homes and health care facilities are excretion after use or direct disposal via the trash and/or flushing into the sewer or septic system (U.S. Environmental Protection Agency 2006; Daughton and Ternes 1999; Kostich and Lazorchak 2006). Internationally, evidence of pharmaceutical drugs has shown up in numerous water sources. Within the United States, a United States Geological Survey (USGS) study found pharmaceuticals, hormones, and other organic wastewater contaminants in 80% of the 139 streams sampled in 30 states (Kolpin *et al.* 2002; Cocke 2004). USGS reconnaissance data found detectible levels of pharmaceuticals and other microcontaminates in Oregon streams, including samples from the Tualatin River, Zollner Creek near Mt. Angel and the Willamette River near Swan Island.

Conventional wastewater treatment plants are designed to remove traditional pollutants including solids, biochemical oxygen demand, bacteria, and viruses. Some treatment plants are also designed to remove nutrients, such as phosphorus. National research is underway to determine the extent that these traditional treatment technologies can remove microcontaminants; preliminary results indicate that some microcontaminants, such as pharmaceuticals and personal care products, can be treated at a traditional treatment plant, but others cannot.

In Oregon, 62 wastewater treatment plants and 52 industrial and commercial dischargers are upstream of public drinking water sources. Combined, these public drinking water sources serve 651,000 Oregonians.

### 3.1.3.1 Solid Waste Leachate

Dr. Jeff Nason, Oregon State University, conducted a review of available literature regarding the absence or presence of pharmaceuticals in landfill leachate or groundwater below unlined landfills as part of this report. A copy of the complete report is included as Appendix B. The report conclusions included:

*A wide variety of pharmaceutical compounds have been detected in landfill leachate from lined landfills and in groundwater down gradient of unlined landfills. The presence or absence of pharmaceuticals does not appear to be correlated with the operating status of the landfill (active vs. closed). However, a larger number of closed landfills were unlined and therefore posed a greater risk of direct contamination of the groundwater. Neglecting the sites thought to be contaminated with hospital (Eckel et al., 1993) or pharmaceutical production waste (Fiolin et al., 1995; Abel et al., 1998; Abel and Jelcic, 2001), concentrations of pharmaceutical compounds in leachate ranged from less than 10 ng/L to as high as 120 ig/L. In contaminated groundwater, concentrations ranged from < 1 ng/L to as high as 140 ig/L. Much higher concentrations (up to 18 mg/L) were found in groundwater contaminated by unlined landfills that had received pharmaceutical production waste.*

*The potential benefits of disposing pharmaceutical compounds to landfills are the partitioning of some pharmaceuticals to organic matter and biological or chemical degradation within the landfill. However, the fraction of the pharmaceutical compounds that end up in the leachate must be removed prior to surface water discharge; some fractions of those compounds can escape treatment and end up in the environment. Theoretical predictions (Tischler/Kocurek, 2007) and field data (Schneider et al., 2004) suggest that drugs disposed of in municipal solid waste landfills contribute only a small fraction (< 1%) of the total load of pharmaceutical compounds discharged to surface water via municipal wastewater treatment plants and landfill leachate treatment systems. However, for individual compounds, this percentage is estimated to be as high as 20%. Although the total load of pharmaceuticals to surface waters is predicted to be small, it is not zero. Furthermore, the likelihood that drugs disposed of in landfills will ultimately end up in surface water is compound specific. These preliminary studies provide a starting point, but further research is necessary to more completely understand the transformation and ultimate fate of pharmaceutical compounds in landfill leachate. To date, only a few studies have examined the concentrations of pharmaceutical compounds in leachate from lined landfills (Paxeus, 2000; Schneider et al., 2001; Schwarzbauer et al., 2002; Breidenich, 2003; Heim et al., 2004; Schneider et al., 2004) and all of those studies focused on landfills in countries other than the U.S. Additional study in the U.S. is necessary to more fully evaluate the occurrence and fate of pharmaceuticals in landfill leachates and the potential implications of the White House Office of National Drug Control Policy's guidance directing consumers to dispose of unused pharmaceuticals in household trash.*

As displayed in figure 3.1, pharmaceuticals disposed in solid waste landfills escape in the form of leachate, the liquid that has passed through or emerged from landfill waste. Leachate contains soluble, suspended, or miscible materials removed from the waste. While newer landfills are designed with a leachate collection system, typically the collected leachate is transported to a wastewater treatment plant for treatment. In older landfills without a collection system, the leachate can infiltrate the groundwater or move to surface water. In 2000 the USGS conducted a study of the Norman Landfill located in Oklahoma. The landfill, which was opened in 1920 and closed in 1985, did not have a leachate collection system. According to the study, the leachate plume is moving in the direction of ground water flow and has migrated beyond a wetland that is about 394 feet south of the landfill. The samples collected found 22 organic wastewater contaminants, including pharmaceuticals (Barnes *et al.* 2004).

### 3.1.3.2 Impacts from On-Site Wastewater Treatment Systems

Oregon residents outside cities and towns often use on-site or septic systems for wastewater treatment and disposal, which reintroduce treated effluent into the soil below the surface. Unwanted drugs disposed of in on-site systems can damage an on-site wastewater treatment systems, which are dependent on a healthy bacteria community to treat the wastewater.

In the rural-residential community of La Pine, in Oregon's upper Deschutes Basin, the USGS, Oregon DEQ and Deschutes County Environmental Health Division tested the groundwater for organic wastewater compounds, including a suite of 18 pharmaceuticals. The La Pine community relies on individual on-site wastewater systems for wastewater treatment and disposal. Of the 18 pharmaceuticals analyzed for in the onsite wastewater, 8 were detected at concentrations above laboratory reporting levels (Hinkle *et al.* 2005). The groundwater aquifer below La Pine is the sole source of drinking water for La Pine residents.

### 3.1.4 PROTECT AQUATIC SPECIES

Aquatic species concerns regarding microcontaminants in water quality synthetic estrogens, endocrine disruptor compounds (EDCs), and antibiotics. An example of an EDC is Clofibrate, a drug commonly used to lower cholesterol. On the Potomac River downstream from a wastewater treatment plant, the USGS discovered male fish producing eggs from estrogenic exposure in birth control pills (Cocke 2004; Raloff 2004). One sample found that 79% of the male fish sampled had sexual abnormalities, such as producing egg sac proteins and intersex changes

A 2000 USGS study was conducted on the streams in the Boulder Creek Watershed in Colorado to evaluate the spatial chemical loading on the watershed level. The study was timed to coincide with spring-runoff (June 12-14, 2000) and base-flow (October 9-11, 2000) conditions (Barber *et al.* 2006). Pharmaceutical compounds were detected (55% of the 22 compounds analyzed) in the main stem Boulder Creek samples, including diltiazem, cotinine, and sulfamethoxazole (Barber *et al.* 2006). Although most pharmaceuticals only occurred downstream from the Boulder wastewater treatment plant (WWTP), several (ranitidine, codeine, diltiazem) were detected during spring runoff at the most upstream site. Studies on native fish populations in Boulder Creek indicate significant endocrine disruption in the wastewater treatment plant effluent impacted stream reach. Upstream from the WWTP outfall, the gender ratio (male/female) for white sucker ranged from 0.7-0.9, whereas below the outfall the ratio ranged from 0.2-0.3. Other indicators of endocrine disruption, including gonadal intersex and vitellogenin induction in juvenile and male fish, also were observed (Barber *et al.* 2006).

With salmonids the window when where they are sensitive to estrogen and EDCs is around the time of hatching and extends to beyond the time when these fish begin to feed exogenously; during this window male Chinook salmon have been shown to be very susceptible to sex reversal (Nagler *et al.* 2001).

In March 2007 the U.S. Fish and Wildlife Service and the American Pharmacists Association (APhA) announced their partnership, "to help protect our nation's fish and aquatic resources from improper disposal of medication" (U.S. Fish & Wildlife Service and American Pharmacists Association 2007). The program, titled "SMARxT DISPOSAL", will work to educate the general public on the negative impacts improper disposal into the waterways has on the environment, aquatic resources, and public safety. The pilot began in March 2007 and will expand in 2008.

The Pharmaceutical Research and Manufacturers of America are currently involved in research projects to assess the impacts of pharmaceuticals on aquatic species.

### 3.1.5 PROTECT HUMAN HEALTH

There is currently little evidence that pharmaceuticals are present in the environment in sufficient quantity to cause significant physical harm. A Danish study looked at the human health from environmental exposure to three common pharmaceuticals, the synthetic estrogen (17 $\alpha$ -ethinylestradiol), the antibiotic phenoxymethylpenicillin, and the antineoplastic drug cyclophosphamide. The results indicated a negligible human risk connected to the environmental exposure for the three substances (Christensen 1998).

### 3.1.6 ECONOMIC COSTS

#### 3.1.6.1 Medical Treatment

Due to patient confidentiality, the economic costs for medical treatment due to accidental poisoning or medical misuse are challenging to quantify. With 576,000 Oregonians lacking health care insurance (Oregon Progress Board 2007), the costs to the state of Oregon could be substantial.

#### 3.1.6.2 Oregon Salmon Recovery Costs

Oregon aquatic life is susceptible to the impacts of endocrine disrupting compounds and synthetic estrogen. Within Oregon significant amount of funding goes towards the recovery costs of endangered salmon runs. In 2006 the federal government spent over \$559 million on salmon recovery in the Columbia Basin, with the projected funding for 2007 is \$578.1 million, with about half from Congressional appropriations and the remaining from Bonneville Power Administration (BPA) funding.

#### 3.1.6.3 Wastewater Treatment Costs

The most likely additional treatment technology to remove pharmaceuticals from treated wastewater effluent would include microfiltration, installation of membrane filtration, and reverse osmosis. Engineering estimates calculate the installation costs of these systems at between \$6 million to \$15 million per million gallons of treated effluent. These are installed cost estimates and do not include operations and maintenance, brine disposal, or the energy costs associated with operating the facilities. It is not known if microfiltration and reverse osmosis will remove all pharmaceuticals in wastewater effluent.

For illustration, Table 3.1.6.3 estimates the winter (wet weather) flow of selected treatment plants in the Willamette Valley.

**Table 3.1.6.3: Estimated Winter Flow of Selected Plants in the Willamette Valley, Oregon**

COMMUNITY	ANTICIPATED WET WEATHER FLOWS	COST RANGE FOR MICROFILTRATION AND REVERSE OSMOSIS
Corvallis	75 MGD <sup>7</sup>	\$450 million to \$1.125 billion
Metropolitan Wastewater Management Commission (Eugene/Springfield)	237 MGD	\$1.422 billion to \$3.555 billion
Clean Water Services (Urbanized Washington County)	335 MGD	\$2.010 billion to \$5.025 billion
Portland	450 MGD	\$2.7 billion to \$6.75 billion

<sup>7</sup> MGD: Million Gallons per Day.

## 4 Regulatory Framework

### 4.1 Controlled Substances Act

Under the Controlled Substances Act (CSA), Title 21 of the United States Code, prescription medication falls under two categories, controlled and noncontrolled. Due to their abuse potential, controlled medications are regulated by the U.S. Drug Enforcement Administration (DEA), which enforces the Controlled Substances Act. These substances are drugs, or other substances, included in Schedule I, II, III, IV, or V of Title 21 (National Archives and Records Administration 2004). The Code of Federal Regulations (CFR) Sections 1308.11 to 1308.15 break the schedules down based on their abuse potential, utility of medical treatment, and safety when used under medical supervision (Colliver *et al.* 2006):

- Schedule I, the most restrictive level, includes drugs or other substances with a high potential for abuse, no currently accepted medical use in the United States, and a low level of safety. Drugs and other substances in Schedule I are not approved for use, distribution, manufacture, or importation. Examples include heroin, marijuana, phencyclidine (PCP), and lysergic acid diethylamide (LSD).
- Schedule II drugs have high abuse potential but have currently accepted medical use in treatment, though with severe restrictions. Examples include cocaine, methamphetamine, amphetamines (e.g., dextroamphetamine, Adderall<sup>®</sup>), morphine, oxycodone (e.g., OxyContin<sup>®</sup>), and methylphenidate (e.g., Ritalin<sup>®</sup>).
- Schedule III drugs have abuse potential less than that of Schedule I or II drugs and have currently accepted medical uses in treatment. Some drugs in this category include hydrocodone (e.g., Vicodin<sup>®</sup>) and butalbital (e.g., Fiorinal<sup>®</sup>).
- Schedule IV drugs have lower abuse potential than those in Schedule III and currently have accepted medical uses in treatment. These include alprazolam (Xanax<sup>®</sup>), diazepam (Valium<sup>®</sup>), and propoxyphene (e.g., Darvon<sup>®</sup>).
- Schedule V drugs have low abuse potential and recognized medical uses. Examples include cough medicines with codeine (e.g., Robitussin AC<sup>®</sup>).

Any drugs not listed on schedules I-V are considered noncontrolled and fall out of the jurisdiction of the Controlled Substances Act and law enforcement.

The goal of the Controlled Substances Act is to ensure a closed distribution system -- a controlled substance is under the legal control of a person registered, or specifically exempted by the DEA -- until it reaches the ultimate user or is destroyed. If, for example, a pharmaceutical take back event were to take place, the regulations require law enforcement officers to take possession of any controlled substances collected and to maintain possession of them at all times, including witnessing their destruction. Therefore, once a prescription is filled, only the person to whom it was prescribed or law enforcement personnel can legally be in possession of the drug. Noncontrolled substances are those not listed in Title 21. Additional information available at [www.dea.diversion.usdoj.gov](http://www.dea.diversion.usdoj.gov) or <http://www.dea.gov/pubs/csa.html>.

## 4.2 Health Insurance Portability and Accountability Act

The Health Insurance Portability and Accountability Act (HIPAA) of 1996 does not apply to unwanted medications (U.S. Department of Health and Human Services 2006). While a pharmaceutical take back program would not have to comply with HIPAA, participants may not feel comfortable returning their prescriptions if they feel their privacy may somehow be exposed by returning medications with their names on the labels; yet sorting of drugs for disposal may require the medication information found on label next to the users name. It should also be noted that it is a federal offence, and under Oregon Revised Statute (ORS) 167.212, a state offence to remove or deface a label of a controlled substance.

## 4.3 Oregon Board of Pharmacy

The Oregon State Board of Pharmacy (OSBP) regulates the practice of pharmacy and enforces laws pertaining to drug outlets, pharmacists and the sale of drugs within the state of Oregon. The OSBP will investigate drug diversion and violations of Oregon Administrative Rules (OAR) pertaining to the disposal of pharmaceuticals, including controlled substances. OAR 855-041-0080 directs pharmacies on returned drugs, and states that:

- (1) *Pharmacists, pharmacies, pharmacy technicians, and certified pharmacy technicians may only accept the return of controlled substances upon receiving a waiver from the Board of Pharmacy.*
- (2) *Pharmacists, pharmacies, pharmacy technicians, and certified pharmacy technicians may accept the return of drugs or devices as defined by ORS 689.005 once the drugs or devices have been removed from the pharmacy only if;*
  - (a) *The drugs or devices are accepted for destruction or disposal and;*
  - (b) *The drugs or devices were dispensed in error, were defective, adulterated, misbranded, dispensed beyond their expiration date, were unable to be delivered to the patient, or are subject of a drug or device recall; or*
  - (c) *After consultation, a pharmacist determines that, in the pharmacist's professional judgment, harm could result to the public or a patient if the drugs or devices were not accepted for return.*
- (3) *Notwithstanding section 2 of this rule, drugs or devices previously dispensed or distributed may be returned and re-dispensed or redistributed provided all the following conditions are met:*
  - (a) *The drug is in an unopened, tamper-evident unit;*
  - (b) *The drugs or devices have remained at all times in control of a person trained and knowledgeable in the storage and administration of drugs in long term care facilities or supervised living groups using the services of a consultant pharmacist;*
  - (c) *The drug or device has not been adulterated or misbranded and has been stored under conditions meeting United States Pharmacopeia standards.*
- (4) *Upon written request, the Board may waive any of the requirements of this rule if a waiver will further public health or safety or the health and safety of a patient. A waiver granted under this section shall only be effective when it is issued by the Board in writing (Oregon Board of Pharmacy 2007).*

#### 4.4 Resource Conservation and Recovery Act

The federal Resource Conservation and Recovery Act (RCRA) regulates the transportation, treatment and disposal of hazardous waste. Oregon Department of Environmental Quality (DEQ) operates the RCRA program in Oregon for the U.S. Environmental Protection Agency. With the exception of hospitals, there are few RCRA barriers to a pharmaceutical take back program in Oregon.

Hazardous waste fall into two categories: characteristic wastes and listed wastes. Discarded pharmaceuticals would be regulated as 'listed' hazardous waste if the wastes are listed on either the "P" or "U" lists of the RCRA regulations (see 40 CFR 261.33). To be regulated as a hazardous waste, the P-listed or U-listed ingredient must be the sole active ingredient.

Discarded pharmaceuticals would be regulated as a "characteristic" hazardous waste if the waste exceeded allowable standards for ignitability, corrosivity, reactivity, and toxicity. For discarded pharmaceutical wastes, the only characteristic that might apply is toxicity. Unwanted pharmaceuticals that have leachable concentrations for selected metals, solvents and some pesticides over toxicity regulatory limits would be regulated as "characteristic" hazardous waste (see 40 CFR 261.24). For example, if leachable barium concentrations in a waste were over 100 milligrams per liter (mg/l) or leachable selenium concentrations over 1 mg/l, the waste would be regulated as a 'characteristic' waste.

Unused pharmaceuticals collected from the resident in a take back program would be considered "household waste", under 40 CFR 261.4 – Exclusions, and as such not regulated under RCRA (U.S. Environmental Protection Agency 2006). Long term care facilities are also not regulated by RCRA – the drugs remain in the official possession of the resident. Depending on their management practices, hospitals may be regulated as a Small Quantity Generator (SQG)<sup>8</sup>.

#### 4.5 Mailing of Controlled Substances

A program to collect and dispose of residual pharmaceuticals may include the shipment of residual pharmaceuticals, including controlled drugs listed on Schedules II, III, IV, and V of Title 21, Code of Federal Regulations, -1308.11 to -1308.15. According to the U.S. Postal Service Domestic Mail Manual, which contains the official standards governing domestic mail service, the mailing of controlled drugs is permitted when it is lawful under 21 U.S.C. -801 and 21 C.F.R. -1300 and if the mailer or the addressee is registered with the Drug Enforcement Administration, or is exempt from DEA registration (U.S. Postal Service 2006). Under Title 21 U.S.C. -822(C)(3) a patient who possess a controlled substance by a lawful prescription is not required to register and may lawfully possess the controlled substance (U.S. Drug Enforcement Administration 2002). Thus, the Controlled Substances Act does not prohibit the lawful owner of a prescription medication from mailing it to a law enforcement agency or other DEA registrant for destruction, and 21 C.F.R. -1307.21 allows any person in possession of controlled substances to transfer the drug to a person authorized to possess the drug, such as a law enforcement agency or DEA registrant.

Additionally, the USPS Domestic Mail Manual and Controlled Substances Act regulations specify packaging requirements for the mailing of controlled substances. The controlled substances must be mailed in the original container, with the label intact, in a secure envelope or package that does not indicate the parcel contains a controlled substance (U.S. Postal Service 2006).

<sup>8</sup> The three generator status' under RCRA are Conditionally Exempt, Small Quantity Generator (SQG), and Large Quantity Generator (LQG).



#### 4.6 *Regulatory Uncertainty*

The Safe Drinking Water Act, Title 14 of the Public Health Service Act (42 U.S.C. 300-f-300)- 26) is the key federal law for protecting public water supplies from harmful contaminants (Carter 2006). Deemed too inflexible and expensive, especially for small water suppliers, Congress amended the act in 1996. One of these changes included the establishment of a process for selecting contaminants for regulation. Located in -102(a), the process applies to contaminants that:

- (i) may adversely effect human health;
- (ii) is known to occur in public water systems with a frequency and at levels of public health concern; and
- (iii) in the sole judgment of the Administrator, regulation of such contaminants presents a meaningful opportunity for health risk reduction.

In addition, the Environmental Protection Agency (EPA) should evaluate the availability and costs of treatment techniques to remove the contaminant and assess the impacts of the regulation on the public water systems, economy and public health. Where it is not economically and technically feasible to measure a contaminant at very low concentrations, EPA may establish a treatment technique in lieu of a standard (Carter 2006).

The process of getting a contaminant regulated is long and can be arduous. Every five years EPA must publish a list of chemical or microbial contaminates that meet the requirements set out on section 102(a) (i-iii). This is known as the Contaminant Candidate List (CCL), from which EPA will make a regulatory determination to regulate at least five or more contaminants on the list.

In 2005 EPA published the first CCL and are now in the process of developing the third CCL. According to EPA officials, the third list, to be finalized in 2008, will most likely include a significant number of pharmaceuticals and personal care products (Mannina 2006). The National Research Council has recommended adding pharmaceuticals into the universe of unregulated contaminants (NDWAC 2004).

## 5 Survey of Drug Take Back Programs

To develop program options, the stakeholder group reviewed several other efforts from within and outside the United States. These included:

- State of Maine's proposed mail back program;
- Clark County Washington's Unwanted Medications Take Back Program;
- San Francisco area Safe Medicine Disposal Days in California;
- Washington State Pilot: Pharmaceuticals from Households: A Return Mechanism (PH:ARM)
- Newberg, Oregon Pilot Project with Long Term Care Facilities;
- British Columbia Medications Return Program;
- San Mateo County, California; and
- State of Iowa.

### 5.1 State of Maine

The State of Maine is the first state in the United States to pass legislation for the management of unused or expired pharmaceuticals. In 2003, Maine passed Public Law 2003, Chapter 679 which created the Unused Pharmaceutical Disposal Program with the purpose to ensure the safe, effective and proper disposal of unused or expired prescriptions (State of Maine 122nd Legislature 2005). The Maine Drug Enforcement Agency (MDEA) will administer the program (State of Maine Legislature 2004).

The Maine Drug Return Implementation Group was created to develop and implement the program. In March 2005 the Group finished its work and its recommendations included: (State of Maine 122nd Legislature 2005):

- Voluntary drug turn-in events should be conducted by municipalities, community service organizations and law enforcement agencies. Funding for events should come from pharmaceutical manufacturers.
- Due to the state's rural nature, a system to return unwanted drugs by mail should be created with pre-paid envelopes readily available at pharmacies, hospitals, clinics, and law enforcement offices. Mailings, to include both controlled and noncontrolled pharmaceuticals, should go directly to the MDEA. Funding should come from pharmaceutical manufacturers.
- The Maine Legislature should consider legislation to establish a donation program for unused/unneeded pharmaceuticals.
- The MDEA should support an amendment to federal regulations to allow citizens and law enforcement effective methods for disposal of unwanted pharmaceutical controlled substances.

The Maine program was slated to be operational by July 2006, but was delayed due to the lack of funding. In April of 2007, EPA provided Maine a \$150,000 grant to pilot, implement,

document, and evaluate their mail-back program. In addition, the pilot will test the effectiveness of an educational campaign about the hazards to life, health, and the environment presented by improper storage and disposal of unused medications.

### 5.2 Clark County, Washington

The Clark County Public Works Recycling and Solid Waste Program administers the program and addresses residents' needs to dispose of both controlled and noncontrolled pharmaceuticals. The Clark County Public Works administers and pays for the program out of its budget. Start up costs consisted of \$2,000 for four drop boxes located at four sheriff offices, and \$2,000 for brochures (Clark County Solid Waste 2006). Ongoing costs for noncontrolled drugs are absorbed in the Public Works hazardous waste disposal costs and are not tracked separately. For controlled drugs, the sheriff's office absorbs the personnel costs and the disposal costs for the controlled drugs are free.

Residents have the option of dropping off noncontrolled pharmaceuticals at one of 25 participating pharmacies<sup>9</sup>, household hazardous waste collection events, or the Central Transfer Station (Clark County Public Works 2006). The pharmacies either ship the pharmaceuticals via FedEx<sup>®</sup> to the Household Hazardous Waste vendor or has the vendor pick them up. In addition to the general public, veterinarians, medical examiners, and school districts use the unwanted drug return program.

The Free Clinic of Southwest Washington accepts unopened pharmaceuticals in their original packaging as a donation. The clinic does not accept birth control pills, mental health medications, controlled substances, or expired medications.

Residents can take their controlled substances to four different law enforcement locations throughout the area. Each location has a drop off container similar to a US Postal Service postal box. The controlled substances are sealed in a plastic bag and placed into a secured locker until the sheriff's property officers pick them up and transport them to an incinerator for witnessed disposal. See table 5.2 for the amount of controlled drugs collected.

**Table 5.2: Clark County Controlled Pharmaceuticals Program Results (Clark County Solid Waste 2006)**

TIME PERIOD	PARTICIPANTS	POUNDS COLLECTED
10/01/2003 - 12/31/2003	2	0.04
2004 Calendar Year	4	2.33
2005 Calendar Year	152	7.24
1/1/2006 - 10/31/2006	182	23.08

In the future, Clark County program managers plan to track quantities of collected noncontrolled substances, and work with other law enforcement agencies to establish additional controlled substances collection sites.

<sup>9</sup> List of participating pharmacies found at: <http://www.co.clark.wa.us/recycle/Publications/PartPharmacy.pdf>

### 5.3 San Francisco Area

Many of the San Francisco area Household Hazardous Waste programs have historically accepted pharmaceuticals at their drop-off stations, but most were forced to stop collecting unwanted drugs due to concerns regarding controlled substances regulations and funding. To deal with the emerging problem of waste pharmaceuticals, the East Bay Municipal Utility District (EBMUD), a municipal utility district that supplies water and provides wastewater treatment for parts of Alameda and Contra Costa counties on the eastern side of San Francisco Bay, organized area wastewater treatment plants to collectively hold 38 collection events outside local Walgreen's pharmacies throughout the region from May 13-21, 2006. The goals of the events were to educate the public, to collect medication, and to conduct the collection events in strict conformance with US Drug Enforcement Administration (DEA) regulations. Prior to the collection events, EBMUD conducted extensive advertising, including radio and print media, flyers, direct mailing, developing a dedicated website, and providing information via a toll-free regional phone line. During the events, pharmacists segregated controlled substances from the noncontrolled with police officers slated to be at each event to handle and remove the controlled substances. The events brought in about 1,500 people with each participant disposing on average of two pounds of pharmaceuticals. The 38 events collected a total of 3,685 pounds of pharmaceuticals, with 9% of the total collected controlled drugs (Jackson 2006).

Over the course of the three days each participant filled out a survey. The survey results showed that 48% of the participants previously disposed of their pharmaceuticals in the trash, while 28% disposed of them in the toilet. Of those that participated in the events, 70% were women, and 57% were over the age of 61. The most successful outreach approaches were through newspapers (35%), flyers (22%) and water bill inserts (13%).

The events turned out to be costly, primarily due to the structure required to deal with the controlled drugs. The total cost was \$90,005, which included a waste disposal fee of \$3,645, and \$86,260 for outreach and advertising. The total does not include the public agency staff time, which required almost 2,000 hours of staff time from 19 participating agencies, or law enforcement officers' time. (Bay Area Pollution Prevention Group 2006).

### 5.4 Washington State Pilot: Pharmaceuticals from Households: A Return Mechanism (PH:ARM)

The Washington State PH:ARM pilot program is an Interagency Resource for Achieving Cooperation (IRAC) team with participants from State Department of Ecology, Board of Pharmacy, Local Hazardous Waste Management Program in King County, Public Health, City of Seattle, King County, Northwest Product Stewardship Council, Snohomish County Solid Waste Management Division, Washington State Department of Social and Health Services-Aging and Disability Services, Washington Citizens for Resource Conservation, Pacific Northwest Pollution Prevention Resource Center (PPRC), Bartell Drugs, and Group Health Cooperative.

The goal of the project is to make disposal as easy as it is to buy the product, and to keep drugs out of the environment. The IRAC team hopes to make it convenient to collect a large volume of pharmaceuticals, and to keep the program financially sustainable and inexpensive. The program will eventually be under the operational control of the Washington State Board of Pharmacy. The project is modeled after the manufacturer provided British Columbia program.

Until it can receive a pilot waiver/exception/exemption from the federal Drug Enforcement Administration to include controlled substances, the program only accepts noncontrolled substances. The program consists of a secured metal drop box located within participating pharmacies where consumers can dispose their noncontrolled pharmaceuticals. The metal containers, which cost about \$600 each, are locked steel prototypes and require two keys for access. Inside, a 5-gallon plastic pail is visible through a window slot. When full, the pail is removed, sealed, and shipped to a distribution warehouse. From the warehouse, a reverse distributor/ hazardous waste vendor ships the medication to a high temperature incinerator for disposal. A manifest system provides accountability and tracks the drugs through a written chain of control document.

The pilot PH:ARM program, slated to run from 2006 through 2008, is funded with the support of the Russell Family Foundation, the Public Information and Education fund of the Puget Sound Action Team, Snohomish County Solid Waste Management Division (Coordinated Prevention Grant), King County Water Works, Seattle Public Utilities, Group Health Cooperative, and the Bartell Drug Company. Proposed financing for a statewide system is expected to come from a stewardship model with financing from pharmaceutical manufacturers.

### *5.5 Newberg Pilot Project with Long Term Care Facilities*

The City of Newberg, located southwest of Portland in Yamhill County, developed a pilot pharmaceutical take back program for its adult care facilities. In the Newberg pilot, nursing staff at participating adult care facilities discard expired and unwanted pharmaceuticals into "mailbox" type collection containers instead of flushing them down the toilet, which was the earlier practice. Inside the adult care facilities, two collection containers are bolted down in a locked medicine room. The box for controlled substances is locked so that only local law enforcement officials have access. Law enforcement officials retrieve the controlled drugs for witnessed incineration during their regularly scheduled trips to destroy unnecessary/unwanted evidence at an incinerator. A second locked box is used for collection of noncontrolled substances. The garbage collection franchise takes the noncontrolled substances to a household hazardous waste facility using a manifest and chain-of-custody system. The City's Department of Public Works administers and funds the overall project, while local law enforcement pays for the collection and disposal of the controlled substances. Adult care facilities pay a one time cost, about \$200, for the secure metal box. The Newberg City Council officially approved the program on March 5, 2007.

### *5.6 British Columbia Medications Return Program*

In the 2005 calendar year the British Columbia (BC) Medications Return Program, which has been operational since 1996, collected 39,710 pounds<sup>10</sup>, or over 19.9 tons of pharmaceutical waste (Post Consumer Pharmaceutical Stewardship Association 2006). The program is financed and organized by pharmaceutical manufacturers through the Post Consumer Pharmaceutical Stewardship Association. Operating in Canada, the BC program is not required to separate controlled pharmaceuticals from noncontrolled as programs do in the US. Based on information gathered at drug take back events held in the United States, which found an average of 9% of collected waste was listed as controlled substances, about 3,574 pounds (1.8 tons) collected may have been controlled pharmaceuticals, under the US system. The program has 844 participating pharmacies located in 131 cities where residents return unused and expired medication.

---

<sup>10</sup> Number converted from 18,012 kg.

The pharmacist removes the medication from its packaging (except liquids) and the medication is stored in a 20-liter (about 5-gallons) bucket behind the counter. When the containers are filled, the pharmacy faxes a request to the disposal vendor to arrange collection and transport to a secure warehouse. The containers are catalogued and held at the warehouse until a load is adequate for trucking to the incinerator for disposal. During 2005 1,430 containers were collected; an average of 1.7 containers from each participating pharmacy. With the average weight of the containers at 28 pounds, each facility collected an average of 46 pounds annually; of which about 4.3 pounds may have been considered controlled drugs in the United States.

The annual cost of the BC program in 2005 was \$190,935.00 (US Dollar)<sup>11</sup>. This equates to a cost of \$4.81 per pound. The program is administered by the Post Consumer Pharmaceutical Stewardship Association and funded by pharmaceutical manufacturers selling in British Columbia. The pharmaceutical industry voluntarily established the Medications Return Program (formally called British Columbia EnviRx) in November 1996, and in 1997 regulated it under the BC Post-Consumer Residual Stewardship Program Regulation. This regulation required all brand-owners, which includes the Research and Development, generic, and over-the-counter, manufacturers, of pharmaceutical products sold in BC to provide a way for consumers to dispose of their unused or expired products in an environmentally responsible manner and to take responsibility for the safe management of their products.

### *5.7 San Mateo County, California*

Established in September 2006, San Mateo County residents can bring all controlled and noncontrolled pharmaceuticals to ten participating police stations and the county sheriff's office. The pharmaceuticals subsequently are consolidated at the county jail and trucked out-of-state by All Chemical Disposal, Inc. for incineration.

### *5.8 State of Iowa*

Since 2004 residents can drop controlled and noncontrolled pharmaceutical drugs at the state household hazardous waste facility, a licensed reverse distributor. The state charges \$8.50 per pound for disposal. The local Narcotics Task Force periodically transports the waste pharmaceuticals to an in-state incinerator.

---

<sup>11</sup> Exchange rate of 0.8486 on January 9, 2007.

## 6 Oregon Program Options

As of July 1, 2006 the state of Oregon population was 3,690,505; 69%<sup>12</sup> of which live within 241 incorporated cities or towns (Population Research Center 2006). Since Oregon's population is similar to the population served in the British Columbia (BC) pharmaceutical return program, the assumption is that Oregon will return roughly 150% of the BC program of unwanted drugs, 59,565 pounds, with 5,361 pounds of these controlled drugs. The stakeholder group decided at the February 9, 2007 meeting to increase Oregon's return from the BC program due to the large volume of prescriptions, which are usually 30 or 90 day supplies. Due to an accumulation of pharmaceuticals in individual homes, the first few years may experience a higher rate in returns.

Whichever program Oregon chooses, that program will require oversight by the State as this will be more efficient than managing many local programs. This could be a single state agency, a collaborative effort by multiple agencies, or involve an industry stewardship organization to provide and finance a program, as in British Columbia. Potential agencies include: Oregon Poison Center, Oregon Department of Environmental Quality, Oregon Public Health Division, Oregon State Police, and/or the Oregon State Board of Pharmacy. Private partners could include individual companies, a state pharmacy association, or national pharmaceutical associations, which could include research & development, generic, and over-the-counter drug manufactures.

The six program options were researched and estimated costs for the programs researched, including:

1. Installed program – Controlled drugs to taken law enforcement
2. Installed program – Controlled drugs mailed to law enforcement
3. Local law enforcement drop off
4. Oregon State Police mailer
5. Reverse distributor mailer
6. Product stewardship model

The details and estimated costs of each type of program are outlined below.

### 6.1 *Option 1: Installed Program – Controlled Drugs Taken to Law Enforcement*

This option would include installing unwanted pharmaceutical drop-boxes in participating pharmacies with controlled drugs being returned to local law enforcement agencies. This option would be permanent, statewide and modeled off the efforts of British Columbia, Clark County, and PH:ARM programs. The program would consist of an estimated 475<sup>13</sup> permanent return centers located at pharmacies throughout the state where residents would drop off their noncontrolled pharmaceuticals with the pharmacists. The pharmacists would place

---

<sup>12</sup> Determined using state's total population and population within cities and towns.

<sup>13</sup> Based on number of pharmacies in each town/city. Assumes 75% pharmacy participation statewide.

the noncontrolled pharmaceuticals in a 5 or 20-gallon Department of Transportation (DOT) approved container behind the counter. Pick up and disposal costs for a 20-gallon container is estimated to be about \$150 each trip<sup>14</sup> (includes cost of the container), compared to a 5-gallon container at an estimated \$110<sup>15</sup>. Due to the excessive packaging of medication, use of a 20-gallon container may be the most cost effective, as it will require less pickup and disposal by a hazardous waste contractor. However, storage of the larger containers behind the pharmacy counter could be a problem. If a resident brought in controlled substances, the pharmacist would use a pre-printed flyer to direct them to a drop box located at a local law enforcement office. Based on the current population, there should be an estimated 210<sup>16</sup> local law enforcement drop off boxes.

There two main concerns regarding this option: First, there's a possibility residents may bring in stockpiles of unused pharmaceuticals, which would require the pharmacist's time to sort, as they are prohibited by the Controlled Substances Act to take controlled drugs. Second, residents may be unwilling to make the extra effort to take their controlled substances to a law enforcement drop box. Instead, they may try to leave the controlled drugs at the pharmacy counter, take it home and stockpile it again, flush down the toilet, or throw it in the trash outside the pharmacy.

**Table 6.1: Option 1 Estimated program costs - Installed Program – Controlled Drugs Taken to Law Enforcement**

ITEM	COST YEAR 1	COST ONGOING YEARS
<b>Supplies</b>		
• 1,550 20-gal DOT approved pails at \$25 each. Assume 30 pounds in bucket	\$38,750	\$38,750
• Flyers: 250 per location at \$0.05 each	\$5,938	\$5,938
• 210 secure metal drop off boxes (\$500 each)	\$105,000	N/A
• Drop off box cardboard insert boxes (1 each week at 210 locations at \$1.00)	\$10,920	\$10,920
<b>Services</b>		
• Transportation and disposal of noncontrolled drugs 1,550 20-gallon containers	\$193,750	\$193,750
• Disposal of 2.7 tons of controlled substances: \$150 per ton	\$405	\$405
<b>Labor</b>		
• 2 full time employees (\$125,000 year for NRS-4 <sup>17</sup> )	\$250,000	\$250,000
• Law enforcement labor. Assume 0.5 hour per pound of controlled at \$100,000 annual wage	\$128,640	\$128,640
<b>Outreach/Communication</b>		
• Estimated	\$60,000	\$20,000
<b>Miscellaneous (per diem, mileage, photocopies, etc)</b>	\$10,000	\$10,000
<b>Total</b>	<b>\$803,403</b>	<b>\$658,403</b>

<sup>4</sup> Cost estimate provided by hazardous waste vendor on 12/15/2006. Actual cost may vary.

<sup>15</sup> Cost estimate provided by hazardous waste vendor on 12/15/2006. Actual cost may vary.

<sup>16</sup> Number assumes one law enforcement drop box per 50,000 people. For example, a town with a population of 150,000 will have three. Towns with populations between 500 – 49,999 will have one box each.

<sup>17</sup> NRS: Natural Resource Specialist.



**6.2 Option 2: Installed Program with Controlled Drugs Mailed to Law Enforcement**

This program would have installed drop boxes at participating pharmacies with controlled drugs mailed to law enforcement. In this program, each pharmacy would have a secured drop box in the pharmacy where residents could drop off their unused noncontrolled pharmaceuticals. A sign on the box would direct residents to talk to the pharmacist if they're unsure whether or not their pharmaceuticals were controlled substances. If they possessed controlled substances, the pharmacist would provide a pre-paid postage envelope the resident could use to mail their controlled pharmaceuticals to a law enforcement agency, such as the Oregon State Police. This process would ensure the resident keeps possession of the controlled substances until it reached a law enforcement agency, keeping the chain of control from owner to law enforcement, as required by the U.S. Controlled Substances Act. At no point would the pharmacy or pharmacist gain control of the controlled pharmaceuticals.

Concern with the program lies with the potential for diversion of the controlled substances for illicit use. Customers with controlled drugs may follow a pattern of dropping the envelope in the same postal service mailbox. If a drug addict were to recognize the pattern, they may attempt to gain access to the USPS mailbox.

Compared to the program without a mailer, this program provides less of a burden on the pharmacy, and greater ease of use to the resident.

**Table 6.2: Option 2 Estimated Program Costs - Installed Program with Controlled Drugs Mailed to Law Enforcement**

ITEM	COST YEAR 1	COST ONGOING YEARS
Supplies		
• 3,700 DOT approved pail (5 gal) \$10 each at 475 locations	\$37,000	\$37,000
• 4x8 bubble mailer envelopes (10,722) at \$0.16 each	\$1,716	\$1,716
• Pre-paid shipping labels (10,722) at \$0.10	\$1,072	\$1,072
• 475 Secure metal drop off boxes (\$600 each)	\$285,000	N/A
• Mailing Directions for Controlled (10,722 at \$0.05 each)	\$536	\$536
Services		
• Transportation and disposal of noncontrolled 3,700 5-gallon containers (assume 15 pounds each)	\$370,000	\$370,000
• Disposal of 2.7 tons of controlled substances: \$150 a ton	\$405	\$405
Postage (10,722 mailers)		
• Business Reply Mail Annual Permit Fee	\$160	\$160
• Annual Accounting Fee	\$500	\$500
• Per piece fee (\$0.06)	\$643	\$643
• Parcel Postage (\$3.15 per piece)	\$33,774	\$33,774
Labor		
• 2 full time employees (\$125,000 year for NRS-4)	\$250,000	\$250,000
• Law Enforcement labor - One Full Time Employee at \$100,000 per year	\$100,000	\$100,000
Outreach/Communication	\$60,000	\$20,000
Miscellaneous (per diem, mileage, photocopies, etc)	\$10,000	\$10,000
<b>Total</b>	<b>\$1,150,806</b>	<b>\$825,806</b>

### 6.3 Option 3: Local Law Enforcement Drop-Off

With this option consumers would drop off their controlled and noncontrolled pharmaceuticals at local law enforcement drop boxes. A drop box could be installed outside, where individuals could drive up and deposit pharmaceuticals, much like a mailbox. A drop box could also be provided inside the law enforcement offices. After separating the controlled drugs from the noncontrolled, law enforcement personnel would handle and witness the destruction of the controlled substances, while the noncontrolled would be shipped out for disposal by a private hazardous waste company.

The major benefit of such a program is the security associated with law enforcement drop off boxes. Concern lays with the availability of local law enforcement personnel to handle the additional work. Additionally, some residents may not feel comfortable bringing their unused medication to a law enforcement office.

**Table 6.3: Option 3 Estimated Program Costs - Local Law Enforcement Drop-Off**

ITEM	COST YEAR 1	COST ONGOING YEARS
Supplies		
• 210 Secure metal drop off boxes (\$500 each)	\$105,000	N/A
• Drop off box cardboard insert boxes (2 each week at 210 locations at \$1.00)	\$21,840	\$21,840
Services		
• Transportation and disposal of noncontrolled at \$350/55-fiber drum (2x per location)	\$147,000	\$147,000
• Disposal of 2.7 tons of controlled substances: \$150 a ton	\$405	\$405
Labor		
• 0.5 full time employees (\$125,000 year for NRS-4)	\$75,000	\$75,000
• Law Enforcement labor. Assume 2 hour per week each location at annual rate of \$100,000	\$1,048,320	\$1,048,320
Outreach/Communication	\$60,000	\$20,000
Miscellaneous (per diem, mileage, photocopies, etc)	\$10,000	\$10,000
<b>Total</b>	<b>\$1,467,565</b>	<b>\$1,322,565</b>

### 6.4 Option 4: Oregon State Police Mailer

Modeled from the state of Maine program, this would involve residents mailing their unused pharmaceutical drugs, controlled and noncontrolled, directly to the Oregon State Police (OSP) for disposal. When a resident visited a pharmacy to pick up a prescription, the pharmacist will offer them a pre-paid postage envelope to mail their residual pharmaceuticals directly to the OSP. The envelope will contain mailing directions, in addition to an educational statement on the importance of proper disposal. After separating the controlled drugs from

the noncontrolled drugs, OSP would handle and witness the destruction of the controlled substances, while the noncontrolled medication will be shipped out for disposal by a private hazardous waste vendor.

Benefits of this program are that it requires minimal time and resources of pharmacies, and it is easy and flexible for the resident, especially for those in rural communities. Additionally, this program would not require an exemption from the U.S. DEA. There is a concern with adding additional responsibilities to the Oregon State Police. One challenge would be reaching those consumers who receive their prescriptions through the mail. This option may also require approval from the United States Postal Service.

**Table 6.4: Option 4 Estimated Program Costs - Oregon State Police Mailer**

ITEM	COST YEAR 1	COST ONGOING YEARS
Supplies		
• 119,000 4x8 bubble mailer envelopes at 0.16 each - Estimate 0.5 pounds per mailing	\$19,040	\$19,040
• Pre-paid shipping labels (\$0.10 per envelope)	\$11,900	\$11,900
• Mailing Directions at \$0.05 each	\$5,950	\$5,950
Services		
• Transportation and disposal of noncontrolled substances - 440 55-gal fiber drum with 100 pounds each at \$350 each	\$154,000	\$154,000
• Disposal of 2.7 tons of controlled substances at \$150 per ton	\$405	\$405
Postage (80,000 mailers)		
• Business Reply Mail Annual Permit Fee	\$160	\$160
• Annual Accounting Fee	\$500	\$500
• Per piece fee (\$0.06)	\$7,140	\$7,140
• Parcel Postage (\$3.15 per piece)	\$374,850	\$374,850
Labor		
• 0.25 full time employees (\$125,000 year for NRS-4)	\$31,250	\$31,250
• 2 Full Time Law Enforcement Employees at \$100,000 per year	\$200,000	\$200,000
Outreach/Communication	\$60,000	\$20,000
Miscellaneous (per diem, mileage, photocopies, etc)	\$10,000	\$10,000
<b>Total</b>	<b>\$875,195</b>	<b>\$835,195</b>

### 6.5 Option 5: Reverse Distributor Mailer

Similar to the Oregon State Police mailing option, the Reverse Distributor (RD) program would involve residents mailing their unused pharmaceuticals, controlled and noncontrolled, directly to a U.S. DEA registered reverse distributor under contract to the entity operating the Oregon program -- the State or a private entity. A RD is a private business that takes back pharmaceuticals from a business licensed to handle pharmaceuticals, such as a pharmacy or clinic.

The term and category of "reverse distributor" was codified in May 2005 with the amendment of Title 21 Code of Federal Regulations (CFR) 1300.01 (b)(41). The amendments established the regulatory standards under which reverse distributors may handle unwanted, unusable, or outdated controlled substances acquired from another DEA registrant. RDs must register, provide security, and maintain accurate records for all controlled substances in their possession. As of December 2006 there were 29 RDs registered with the U.S. DEA throughout the United States.

In this program option, when a customer visits a pharmacy to pick up a subscription the pharmacy will offer the person a pre-paid postage envelope to mail their unused pharmaceuticals to a contracted RD. The RD would not sort the controlled from the noncontrolled, but dispose all the pharmaceuticals as if they were controlled substances; this involves a witnessed burn at an incinerator.

The benefits of this program echo those of the direct mailing to the Oregon State Police. Unlike the OSP mailing, implementing the RD mailing program requires an exemption from the U.S. DEA. Yet, the DEA is currently working with the reverse distributor EXP to gain an exemption for a pilot program in the San Francisco area. As of March 2007, it appears an exemption for a pilot program with EXP will go through by the end of 2007. In anticipation, EXP has the facility and processes developed for a instituting a drug return program. Like the previous option, this option would require approval from the United States Postal Office

**Table 6.5: Option 5 Estimated Program Costs - Reverse Distributor Mailer**

ITEM	COST YEAR 1	COST ONGOING YEARS
Supplies		
• 119,000 4x8 bubble mailer envelopes at 0.16 each - Estimate 0.5 pounds per mailing	\$19,040	\$19,040
• Pre-paid shipping labels (\$0.10 per envelope)	\$11,900	\$11,900
• Mailing Directions at \$0.05 each	\$5,950	\$5,950
Services		
• Reverse Distributor costs - \$0.70 per pound for all pharmaceuticals	\$41,696	\$41,696
Postage (80,000 mailers)		
• Business Reply Mail Annual Permit Fee	\$160	\$160
• Annual Accounting Fee	\$500	\$500
• Per piece fee (\$0.06)	\$7,140	\$7,140
• Parcel Postage (\$3.15 per piece)	\$374,850	\$374,850
Labor		
• Full time employee (\$125,000 year for NRS-4)	\$125,000	\$75,000
Outreach/Communication	\$60,000	\$20,000
Miscellaneous (per diem, mileage, photocopies, etc)	\$10,000	\$10,000
<b>Total</b>	<b>\$656,236</b>	<b>\$566,236</b>

### 6.6 Option 6: Product Stewardship

This option would utilize an industry stewardship organization to finance and provide the program, such as the Post Consumer Pharmaceutical Stewardship Association's (PCPSA) Medicine Return Program in British Columbia. PCPSA is a not-for-profit industry sponsored organization that manages product stewardship initiatives for pharmaceutical and self-care products on behalf of its members across Canada. Organizations that fulfill similar functions can also be referred to as producer responsibility organizations, industry funded organizations, or third party organizations. They are common in Europe and throughout Canada for financing and providing the collection of a wide range of products including pharmaceuticals, automotive fluids, batteries, electronics, paint, pesticides, solvents, tires and other products. In the U.S., examples include the Rechargeable Battery Recycling Corporation (RBRC 2006) and the Thermostat Recycling Corporation (NEMU 2007), both of which have been established by manufacturers voluntarily.

A similar system was created in Oregon for electronic waste with the passage of the Oregon Electronics Recycling Law, House Bill 2626 (2007 Session). This bill creates and finances a statewide collection, transportation, and recycling system for televisions, desktop and portable computers, and computer monitors in Oregon. The system is financed by manufacturers.

Additional stewardship organizations are currently under development in the U.S. to address carpet and paint.

Developed by legislative mandates, or reached through negotiations and Memoranda of Understandings, stewardship organizations typically provide a plan to the government of how the responsible manufacturers will collectively provide the required services, meet targets and provide annual reports.

Stewardship organizations finance and establish collection and processing services on behalf of their membership voluntarily, or to comply with legislative mandates. The Stewardship Organization's membership and board of directors determine how the program is financed. Since there are many program options, the private sector often selects the programs that are most equitable to their members, easily assessed and collected to the residents, with minimum bureaucracy. Examples of options include fees based on size of company, annual sales, individual product sales (such as number of prescriptions), and percent of returned product. Many industry trade organizations have tiered membership fees based on industry-relevant and accepted criteria.

In the case of PCPSA, prescription (name brand and generic) and over-the-counter ("self-care") manufacturers are billed for the cost of the Medicine Return Program and its administration. There is a minimum charge of \$200 per year. Manufacturers of "self-care" drugs are charged \$0.25 per \$1,000 of product sold in British Columbia. Manufacturers of prescription drugs are billed a fee based on the number of prescriptions filled in British Columbia<sup>18</sup>.

This option keeps the program financing directly related to the producers, users and disposers of medications. Since financial decision making remains in the control of the private sector, it could result in equitable and efficient fee assessment while minimizing government bureaucracy. While a stewardship organization could be established voluntarily, more likely a legislative mandate would be required.

### *6.7 Summary of Oregon Program Option Cost Estimates*

Tables 6.7a and 6.7b compares and summarizes the five Oregon program options. Table 6.7a lists year one costs only, while table 6.7b lists ongoing annual costs. It is important to note that the first year's costs are generally higher due to costs associated with program start-up. The product stewardship option is not listed on the summary, as the stewardship organization would have to develop and finance the program.

---

<sup>18</sup> The Medicine Return Program stewardship plan and annual reports available at [http://www.medicationsreturn.ca/british\\_columbia\\_en.php](http://www.medicationsreturn.ca/british_columbia_en.php)

**Table 6.7a: Summary of Year One Cost Estimates**

	OPTION 1 INSTALLED - CONTROLLED TAKEN TO LAW ENFORCEMENT	OPTION 2 INSTALLED - CONTROLLED MAILED TO LAW ENFORCEMENT	OPTION 3 LOCAL LAW ENFORCEMENT DROP OFF	OPTION 4 OSP MAILER	OPTION 5 REVERSE DIST. MAILER
Supplies	\$160,608	\$325,324	\$126,840	\$36,890	\$36,890
Services	\$194,155	\$370,405	\$147,405	\$154,405	\$41,696
Postage	NA	\$35,078	NA	\$382,650	\$382,650
Labor	\$378,640	\$350,000	\$1,123,320	\$231,250	\$125,000
Outreach	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000
Miscellaneous	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000
<b>Total</b>	<b>\$803,403</b>	<b>\$1,150,806</b>	<b>\$1,467,565</b>	<b>\$875,195</b>	<b>\$656,236</b>

**Table 6.7b: Summary of Ongoing Cost Estimates**

	OPTION 1 INSTALLED - CONTROLLED TAKEN TO LAW ENFORCEMENT	OPTION 2 INSTALLED - CONTROLLED MAILED TO LAW ENFORCEMENT	OPTION 3 LOCAL LAW ENFORCEMENT DROP OFF	OPTION 4 OSP MAILER	OPTION 5 REVERSE DIST. MAILER
Supplies	\$55,608	\$40,324	\$21,840	\$36,890	\$36,890
Services	\$194,155	\$370,405	\$147,405	\$154,405	\$41,856
Postage	NA	\$35,078	NA	\$382,650	\$382,650
Labor	\$378,640	\$350,000	\$1,123,320	\$231,250	\$75,000
Outreach	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
Miscellaneous	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000
<b>Total</b>	<b>\$658,403</b>	<b>\$825,806</b>	<b>\$1,322,565</b>	<b>\$835,195</b>	<b>\$566,396</b>

### 6.8 Summary of Programs Benefits and Burdens

Of the program options explored by the stakeholder group, each have certain benefits and burdens. Table 6.8 summarizes and compares these.

Table 6.8: Summary of program benefits and burdens

PROGRAM OPTION	BENEFITS	DRAW BACKS
<b>Pharmacy collection of noncontrolled medication – controlled drugs to law enforcement</b>	<ul style="list-style-type: none"> <li>- Pharmacy drop off convenient for public</li> <li>- Permitted under existing Drug Enforcement Administration (DEA) regulations</li> </ul>	<ul style="list-style-type: none"> <li>- Added burden for law enforcement agencies</li> <li>- Pharmacist's time to sort controlled from noncontrolled drugs</li> </ul>
<b>Pharmacy collection of noncontrolled medication with mail back of controlled drugs to law enforcement</b>	<ul style="list-style-type: none"> <li>- Pharmacy drop off convenient for public</li> <li>- Allowable under existing DEA regulations</li> <li>- Mail back convenient for hospice personnel</li> </ul>	<ul style="list-style-type: none"> <li>- Expensive to establish and operate</li> <li>- Added burden for law enforcement</li> <li>- Pharmacist's time to sort controlled from noncontrolled drugs</li> </ul>
<b>Collection of all pharmaceuticals (controlled and noncontrolled) at law enforcement agencies</b>	<ul style="list-style-type: none"> <li>- Permitted under existing DEA regulations</li> </ul>	<ul style="list-style-type: none"> <li>- Not convenient for public</li> <li>- Likely low participation</li> <li>- Burden on limited local law enforcement personnel</li> </ul>
<b>Mail back of all pharmaceutical drugs to Oregon State Police</b>	<ul style="list-style-type: none"> <li>- Allowable under existing DEA regulations</li> <li>- Convenient for public</li> <li>- Relatively low cost to establish</li> </ul>	<ul style="list-style-type: none"> <li>- Diverts resources from primary Oregon State Police mission</li> </ul>
<b>Mail back of all drugs to Reverse Distributor</b>	<ul style="list-style-type: none"> <li>- Convenient for public</li> <li>- Controlled and uncontrolled mailed together</li> <li>- Cost effective</li> <li>- Easy to expand to include long term care facilities, hospice, vets, etc.</li> <li>- Business interest</li> </ul>	<ul style="list-style-type: none"> <li>- Waiver from the US Drug Enforcement Administration required</li> <li>- Need cooperation and financial contract with commercial entity</li> </ul>
<b>Product Stewardship program</b>	<ul style="list-style-type: none"> <li>- Industry organized, funded and administered</li> <li>- Efficient</li> <li>- Little/no government involvement</li> <li>- Could be model for other parts of nation</li> </ul>	<ul style="list-style-type: none"> <li>- Depends on industry to voluntarily organize and fund program</li> </ul>



## 7 Subgroup Findings

The three subgroups were formed out of the larger stakeholder group with the purpose of determining the ideal take back programs for adult care facilities, hospitals, and the general public.

### 7.1 Adult Care Facilities – Program Design Suggestions

#### 7.1.1 SUBGROUP MEMBERSHIP

- Brenda Bateman, Tualatin Valley Water District
- Jane Thompson, City of Springfield
- Marney Jett, Clean Water Services
- Mike Dingeman, Oregon State Police
- Tom Penpraze, City of Corvallis
- Dave Stitzhal, Northwest Product Stewardship Council

#### 7.1.2 OVERVIEW

In the summary below, the subgroup has included some basic information about adult care facilities in Oregon, some key considerations affecting recommendations, and then the recommendations themselves. In addition, the subgroup noted that two types of adult care facilities -- home hospice and adult foster care -- do not fit into comfortably into the recommendations outlined, because of their number and staffing structure. Special attention will need to be given to serve these adult care facilities.

#### 7.1.3 ADULT CARE FACILITIES – BASIC INFORMATION

**Numbers and Definitions.** The subgroup limited the definition of “adult care facilities” to residential care, assisted living, and nursing homes. In Oregon, there are 573 adult care facilities with the capacity to serve almost 35,000 individuals. See detailed descriptions in Figure 7.1.3. In addition, Oregon has residential facilities for children and adults with developmental disabilities.

Figure 7.1.3. Adult Care Facilities in Oregon (as of March 2007)

CATEGORY OF CARE	DESCRIPTION	NUMBER OF FACILITIES IN OREGON	NUMBER OF PATIENTS IN OREGON (AT MAXIMUM CAPACITY)
1. Residential Care Defined in OAR 411-055-0000(33)	Homes for six or more people. Some offer private rooms and registered nurse consultation services.	230	8,674
2. Assisted Living Defined in OAR 411-056-0005(5)	Homes with six or more private apartments. Physical care and additional health care supervision and assistance are available.	201	13,519
3. Nursing Homes Defined in OAR 411-085-0005(37)	Nursing care on a 24-hour basis in a hospital-like setting with skilled care, rehab, and end-of-life care. Appropriate for people who need a more protective setting because of medical and behavioral needs.	142	12,495
TOTALS		573	34,688

**Current Protocols.** The Oregon Department of Human Services licenses each of these facilities, and has regulatory authority over their operations. Typically, the nursing staff in each of these facilities is responsible for disposing of unwanted or leftover medications. At the time of disposal, the nursing staff documents the name of each medication, dosage strength, whether it is in liquid or solid form, and the amount remaining. These medicines are then flushed down the drain. A take-back program would dispose of these pharmaceuticals in a more environmentally responsible manner.

For facilities that provide services for the developmentally delayed, OAR 411-325-0120 requires those facilities to have in place policies to deal with the disposal of unused controlled and noncontrolled medication (Oregon Department of Human Services 2004).

**Reducing the Amount Disposed.** Oregon is one of several states whose Board of Pharmacy allows adult care facilities to send unused noncontrolled substances back to contract pharmacies if certain conditions are met. If they do not already do so, adult care facilities should return as many noncontrolled substances as they can to their "consultant" or "contract" pharmacies, reducing the overall volume destined for disposal. Most adult care facilities in Oregon use consultant pharmacies.

Oregon Administrative Rules (OAR) 855, Division 41 allows pharmacies to re-dispense noncontrolled drugs if the drugs:

1. Are in an unopened, tamper-evident unit (i.e., bubble packs);
2. Remained under the control of a person trained in the storage and administration of drugs in long-term care facilities using the services of a consultant pharmacist;
3. Have not been adulterated or misbranded; and
4. Have been stored under conditions meeting U.S. Pharmacopoeia standards.

#### 7.1.4 KEY CONSIDERATIONS

There are several characteristics of adult care facilities that will have a profound effect on any take-back program, including:

- Having staff transport controlled substances to law enforcement facilities is a problem, because the prescriptions would not be in their names.
- There would be a higher percentage of controlled substances in these collections than in the general public because many noncontrolled substances can go back to the pharmacy for re-dispensing.
- Currently, destroyed medications are sorted (controlled vs. noncontrolled) and well documented before disposal by flushing.
- Only assisted living and nursing homes must have a locked medicine room on site. Residential care facilities must have a "secure system" in place for the storage of pharmaceuticals.
- Any mail-back program would require adult care facilities to use larger boxes or more frequent mailings than household participants.

### 7.1.5 PREFERRED MODEL

Using a locked medicine room with a locked collection container is the preferred model, primarily because using household-size envelopes in a mail-back program would be time consuming, while using larger boxes would require nursing staff to store and have access to controlled substances for relatively long periods of time<sup>19</sup>.

The sub-group believes that given the volume and concentration of controlled substances, it would be best to have someone visit each facility to collect the unwanted pharmaceuticals. The best option would be a Reverse Distributor who could collect all categories of medicine at once and then take everything to an approved hazardous waste incinerator without further sorting or inventorying anything. Use of a private reverse distributor would require an exemption from DEA.

Failing that exemption, law enforcement could first collect all pharmaceuticals and then contract with a reverse distributor to haul the items to a hazardous waste incinerator out-of-state. This is the model currently in use in San Mateo County and City of Vacaville, Calif.

If this still remains unacceptable to DEA, the sub-group's preference would be to follow the model established by the City of Newberg, Oregon. See section 5.5 Newberg Pilot Project with Long Term Care Facilities, for details.

Adult care facilities could be required to participate in drug take-back programs as part of the accreditation requirements from the Oregon Department of Human Services – see OAR Division 411.

### 7.1.6 EDUCATION AND OUTREACH PROGRAMS

Outreach for the long-term care facilities portion of an Oregon Drug Take Back Program would be multi-tiered. Broad publicity for the program could be placed in industry newsletters (such as AARP, nursing associations, and other membership organizations)<sup>20</sup>. The Oregon Department of Human Services could publicize the program in a more direct manner, given its regulatory oversight and record-keeping responsibilities.

Hands-on training at each site would be crucial, as the program would be set up in each facility. A training program should include hard-copy protocols and reference materials, as well as leave-behind posters and decals in each med room. These materials would reinforce program requirements and emergency / informational contact information. A reverse distributor could provide an even better means of reaching all the long-term care facilities in Oregon.

---

<sup>19</sup> A mail-back program would ship all collected materials (without the need to sort) to a pharmaceutical waste disposal facility, such as EXP Pharmaceutical Waste Management located in California. The allowable size of the parcels is dependant on regulations set by the Department of Transportation and varies from state to state. Shipments to California are further restricted by the Medical Waste Management Act, which categorizes materials collected through pharmaceutical take-back programs as medical waste. Currently, EXP accepts parcels through UPS weighing no more than sixteen pounds as set by the MWMA.

Ultimately, the parcel size and labeling requirements will be dependant on the method of shipping. Provided the collected materials are non-hazardous, the only restriction imposed by the United State Postal Service is a 70-pound limit per parcel. Delivery services, such as FedEx, require that all local, state, and federal laws are followed and recommend a signature upon delivery. Parcels sent through FedEx must not have any labels, markings, or other written notice that a pharmaceutical is contained inside.

<sup>20</sup> Some key outreach contacts include: 1) Elaine Young from the Oregon Dept. of Human Services; 2) Ruth Gulyas, Executive Director of Oregon Alliance of Senior & Health Services; and 3) Jim Carlon, Executive Director of Oregon Health Care Association.

Also, any Oregon drug take back program should partner with the consultant/contract pharmacies to help reach out to the adult care facilities. A key common message should be broadcast to all long-term care facilities from pharmacies, *"Return all eligible drugs to your contract pharmacy. To dispose of any remaining drugs, please do the following."*

## 7.2 Hospitals: Drug-Take Back Needs and Opportunities

This section summarizes the initial findings of the Hospital subgroup's assessment of the management of pharmaceuticals in hospitals, and provides recommendations for next steps in gathering additional information and designing possible programs to ensure pharmaceuticals are managed properly in hospitals. The primary focus is on in-patient hospital pharmacies, rather than the retail pharmacies residing in some hospitals that serve the general public.

### 7.2.1 TEAM MEMBERS

- Kevin Masterson, DEQ
- Jim Hill, City of Medford
- Gerry Migaki, Providence Health Systems

### 7.2.2 INITIAL ASSESSMENT OF MANAGEMENT OF PHARMACEUTICALS IN HOSPITALS

Information on the current management of pharmaceuticals in hospitals was obtained from a team member who manages a hospital pharmacy and through interviews with a few other hospital pharmacy representatives. This information was used for an initial assessment of the status of pharmaceutical management in hospitals. The principal finding from the assessment was that most hospitals have comprehensive procedures in place to recover leftover drugs, thus minimizing the discharge of pharmaceuticals to the sanitary sewer or disposal into the solid waste system.

Many hospitals implement the following practices to ensure proper management of leftover or outdated drugs:

- Dispense drugs through a "unit dosing" procedure, which involves providing the patient with only a single dosage of a drug when it's needed (e.g., individually wrapped pills). This procedure also allows reuse of medication, thus minimizing waste.
- Outdated drugs or unusable drugs are either returned to the inpatient pharmacy by hospital staff or removed from stock by pharmacy staff. Only return of narcotics requires a double signature process. The pharmacy then contracts with a Reverse Distributor to take unused drugs that are in solid form. Liquid drugs cannot be as readily reused, thus are not typically managed through the Reverse Distributor.
- Utilize contracts with hazardous waste disposal firms to manage drug wastes that are classified as RCRA hazardous waste, or other pharmaceuticals that cannot be taken by the Reverse Distributor.
- Provide training and education to hospital staff that handle drugs to ensure they follow proper management protocols.

If these practices are widely implemented in hospitals throughout Oregon, the Hospital subgroup believes there would be little or no need for additional programs to improve pharmaceutical management to protect the environment and public health. However, there may be gaps in the existing management systems at some hospitals. The sections below summarize these potential needs and how they will be identified and addressed.

### 7.2.3 POTENTIAL GAPS IN CURRENT HOSPITAL PHARMACEUTICAL MANAGEMENT

To verify whether improvements are needed in existing pharmaceutical management systems in hospitals, information needs to be obtained from hospitals that were not contacted as part of the initial assessment. Additional information may also need to be collected from hospitals that have already interviewed. The possible gaps that were identified include:

- **Small Hospitals** – The hospitals contacted for the initial assessment were large and medium facilities or health systems. It's possible that small community hospitals may not have the resources to implement the best management practices followed by the larger hospitals.
- **Use of Sharps Containers** – In some hospitals it was acknowledged that drugs occasionally get disposed of into sharps containers. This could pose the potential risk of theft.
- **Proper Disposal of Non Prescription Drugs** – Unused nonprescription drugs are handled like prescription drugs in the hospital.
- **Drugs Brought into Hospitals** – Although most hospitals have policies that prohibit or discourage patients from bringing in their previously prescribed drugs, it may not be practical for hospitals to ensure all of these personal supplies are prevented from entering the hospitals. All hospitals have a process in place for control of these medications when used within the hospital (Joint Commission requirement). Since these medicines are not the property of the hospital, they need to be sent home with the patient on discharge or disposed of through the hospital disposal channels on approval by the patient.
- **Liquid Drugs** – As mentioned previously, liquid drugs are not as reusable as solid drugs and, therefore, cannot be taken by the Reverse Distributor. Some of these liquids – such as chemotherapy drugs – may be considered RCRA hazardous wastes, while others are not regulated by RCRA. If unit dosing practices are followed, there may not be large quantities of these liquids generated. However, there does not appear to be a consistent management system for the liquid drug wastes that are generated, especially those that are not required to be managed as hazardous waste.
- **Personnel Training and Education** – Hospitals are complex facilities with multiple units operating somewhat autonomously. Thus, ensuring that all personnel who come into contact with leftover or unused pharmaceuticals follow established procedures is a challenging task. There may be instances where most, but not all, hospital personnel are returning drugs to the in-patient pharmacy or other designated central collection point.

### 7.2.4 RECOMMENDED NEXT STEPS

The objective of the hospital subgroup was to collect additional information from hospital pharmacy representatives in the state, determine whether gaps exist, and then provide assistance or resources to hospitals to address those gaps. The subgroup recommended the following actions:

- **Develop and Distribute a Survey to Oregon Hospital Pharmacies** – The sub-group recommends partnering with the Oregon Association of Hospitals and Health Systems (OAHHS) in developing and distributing an anonymous survey of hospital pharmacies statewide. OAHHS represents the vast majority of hospitals and health systems in the state, and their participation in the survey will help to maximize the response. The specific sub-tasks include:
  - Team develops draft survey;

- Contact OAHHS public affairs manager about partnering on survey (if possible, set up a face-to-face meeting);
- Finalize survey with assistance from OAHHS and Oregon Society of Health System Pharmacists (OSHP);
  - Obtain a list of hospital pharmacy directors at OAHHS member hospitals
  - OAHHS distributes survey; and
  - Partners review and evaluate survey results.
- **Pharmaceutical Management Technical Assistance Options** -- If the assessment of the survey results reveals obvious gaps in the management of pharmaceuticals at hospitals, or a subset of hospitals, the subgroup may develop and provide certain types of informational resources and technical assistance. Depending on the needs identified, some assistance could be tailored to individual facilities, while other efforts may be targeted at all hospitals and delivered through OAHHS and the OSHP. Designing a new drug take back program for hospitals is not one of the possible options, given the existing resources and systems available to hospitals. The level and type of assistance offered would be determined, in part, by the involvement of OAHHS and OSHP and other potential partners, but could include:
  - Providing information on Reverse Distributors to hospitals that don't have contracts with such entities.
  - Develop and distribute fact sheets and personnel training resources that outline the importance of proper drug waste management and local hazardous waste management service providers. A comprehensive list of drug wastes that are considered RCRA hazardous wastes could also be provided.
  - Assist small hospitals (which are RCRA conditionally exempt generators) in developing a partnership whereby they can "pool" their pharmaceutical wastes and share the costs of management and disposal.
  - Research available options for managing liquid drug wastes and other pharmaceutical products that don't have readily available management systems (e.g., radioactive iodine, "contrast" agents, etc.).
  - Facilitate peer-to-peer contacts, so that smaller hospitals with limited resources can benefit from the experiences and knowledge of the larger hospitals.

### 7.3 Hospice

Within Oregon, there are 66 hospices, which provide palliative services to terminally ill patients and support for their families. Four of the hospices operate facilities, in addition to providing home care: two have hospice residences, licensed as foster homes, and two have inpatient hospices, licensed as specialty hospitals. The majority of hospice patients die in their own home (53%); 40% die in community-based long term care facilities; 5% die in inpatient hospices, and less than 2% in hospitals. Approximately 1% die in a nursing facility after being admitted by hospice. In Oregon about 30,000 people die a year, of which between 60% to 70% occur under hospice care.

Since hospices use a (relatively) large amount of controlled substances for pain and symptom management, hospice personnel are often on the "front line" of medication disposal. Hospice purchases and provides all the medication related to the terminal illness, and many patients also have unrelated medications. The hospices that are affiliated with a hospital or medical center

typically purchase the medication through their pharmacy. Other hospices may use local pharmacies, such as Wal-Mart and Fred Meyer, but many are shifting towards using mail order pharmacies, such as Hospice Pharmacia.

Hospices are required to have policies for the disposal of medications, most of which include an offer to dispose of unwanted medicines for the family, typically by flushing them down the toilet in the patient's home. This is the only viable disposal technique, as hospice personnel cannot remove any drugs from a home. The families have a right to refuse the drug disposal service; in this case, the hospice will document that the family retained the remaining drugs. Some hospices have reviewed the new federal medication disposal recommendations, but overall there appears to be a reluctance to carry and provide the tools necessary for disposal, such as kitty litter.

For hospice settings, especially for in-home care, a tamper-proof mail back program would be the preferred solution to disposal. There may be potential to leverage some funding from hospice mail order pharmacies as part of their promotional campaigns. Rarely, chemotherapy drugs may be used in a hospice setting; as some chemotherapy drugs are considered hazardous materials, the current policy for their disposal should stay intact.

#### *7.4 Public Group*

The public group was unable to provide a report.

## 8 Oregon Program Funding Options

### 8.1 Oregon Program Funding: Year one

The first year of the chosen program will involve start up costs associated with required infrastructure and outreach, in addition to costs associated with running the program. For example, if secured drop-off bins in 475 pharmacies around the state is the preferred program, the costs for the bins are estimated at \$600 a piece, at a total cost of \$285,000. Public outreach and controlled substances mailing materials will cost an additional \$62,875. Ideally, funding for the infrastructure for the first year could come from the pharmaceutical industry, as well as grants and donations. Due to the social and environmental impacts caused by unwanted pharmaceutical disposal, there may be an opportunity to secure grants for part of the start up program costs. An inventory of organizations that might be potential grant targets is located in Appendix D.

### 8.2 Oregon Program Funding: Ongoing years

A variety of funding options were explored. While preferred, funding does not need to come from one source alone; funding can come from multiple sources.

#### 8.2.1 OPTION 1: SOLID WASTE DISPOSAL FEE

The Oregon Department of Environmental Quality's (DEQ) Solid Waste Program receives all of its funding from permit fees charged to disposal facilities and from disposal fees charged on each ton of waste disposed of in municipal landfills, incinerators, energy recovery facilities, and industrial landfills. Out-of-state waste disposed in Oregon and Oregon waste shipped out-of-state for disposal are also subject to Oregon *disposal* fees, but not *permit* fees. Under Oregon Revised Statute (ORS) 459.235<sup>21</sup>, the permit fee is \$0.21 per ton of solid waste for municipal landfills, construction landfills, off-site and captive industrial facilities, sludge disposal facilities, incinerators and solid waste treatment facilities. Energy recovery facilities pay a \$0.13 per ton permit fee. In addition to the \$0.21 per ton, the Recycling Act permit fee of \$0.09 is added; this fee applies to solid waste facilities except for transfer stations, material recovery facilities, composting facilities, and captive industrial facilities.

Under ORS 459A.110<sup>22</sup>, DEQ can assess fees for programs for reduction of domestic solid waste and environmental risk. ORS 459.110(2) states that, "... *the fee is to be based on the estimated or actual tonnage received at the site or transported out of state for disposal and any other similar or related factors the commission finds appropriate.*" But, ORS 459A.110(7) states that fees shall be no more than \$0.50 per ton per disposal fee. Currently there are two separate disposal fees, one for \$0.31 per ton and the second at \$0.50 per ton, for a total of \$0.81 per ton.

<sup>21</sup> For a full listing of ORS 459 go to <http://www.leg.state.or.us/ors/459.html>.

<sup>22</sup> For a full listing of ORS 459A go to <http://www.leg.state.or.us/ors/459a.html>.



As of January 2007 the disposal fee under ORS 459A.110 of \$0.81 per ton solid waste applies to all disposal sites except transfer stations and to entities that transport solid waste out-of-state for disposal. DEQ primarily uses this fee to:

- Provide household hazardous waste programs;
- Implement programs to promote and enhance waste reduction and recycling statewide, including data collection, performance measurement, education and promotion, market development, and demonstration projects;
- Monitor groundwater and enforce groundwater protection standards at disposal sites that receive domestic solid waste;
- Help counties and metropolitan service districts plan solid waste disposal programs, including closure of disposal sites;
- Provide technical assistance and grants to local governments for recycling and solid waste planning activities;
- Periodically study solid waste composition; and
- Pay DEQ administrative and other costs related to providing solid waste prevention, reduction, and safe management programs.

In 2005 4,799,042 tons of municipal waste was disposed of in Oregon landfills, of which 1,795,971 originated from out of the state and 3,003,071 originated in-state. The in-state disposal rate represents about 1,667 tons per capita. In all, 6,067,742 tons of solid waste (includes municipal, asbestos, tires, sludge, industrial, ash, contaminated soils, and alternate daily cover) were disposed of or exported out of Oregon.

If a pharmaceutical disposal fee were assessed on both in and out-of-state municipal waste an additional fee of \$0.17 per ton of waste would be required to finance a program cost of \$800,000<sup>23</sup>. This would raise the disposal fee from \$0.81 per ton to \$0.98 per ton.

A second option is to assess a disposal fee to all Oregon disposed and exported wastes (excludes materials used for alternate daily cover) for a total of about 6,006,933 tons a year. Financing an \$800,000 program would require an additional \$0.13 per ton fee. This would raise the municipal waste the disposal fee from \$0.81 to \$0.94 per ton; and raise the permit fees on the other wastes from \$0.21 to \$0.34 per ton.

Oregon Administrative Rule (OAR) 340-097-0120 (3)<sup>24</sup> states that any increase in the Solid Waste Permit and Registration Compliance Fee base rates must be fixed by rule by the Environmental Quality Commission (EQC). Operators of solid waste disposal sites, both private and municipally-owned, are opposed to solid waste tipping fee increases that don't fund solid waste programs. A concern is that the addition of another statewide fee could make it harder for a disposal site to increase fees to fund local programs. As tipping fee increases in Oregon are passed on to the local solid waste collection programs, most cities and counties set the collection program rates. Thus, any increase must first go through a rate review discussion and then voted on by the city council or county commission. Additionally, rate pressure is an issue for solid waste and recycling collection programs; a fee increase to fund drug take back programs could make it harder to raise rates need to fund future local communities solid waste and recycling collection programs.

---

<sup>23</sup> Based on DEQs 2005 solid waste disposal data.

<sup>24</sup> For full listing of OAR 340 go to [http://arcweb.sos.state.or.us/rules/OARs\\_300/OAR\\_340/340\\_097.html](http://arcweb.sos.state.or.us/rules/OARs_300/OAR_340/340_097.html).

The benefit of this option is it removes the pharmaceuticals from landfills, and spreads the costs around the state, to both rural and urban. Additionally, the more waste a household generates the more it will have to pay. As noted, the landfill operators would oppose such a funding scheme. An additional disadvantage of the program is it will require at least an administrative rule change by the Environmental Quality Commission and legislative authorization. Additionally, the funding may have to compete with other worthy special waste programs around the state.

### 8.2.2 OPTION 2: PHARMACEUTICAL FEES

Oregon Revised Statute (ORS) 689.135<sup>25</sup> regulates the State Board of Pharmacy's power to assess fees and the approved use of those fees. According to ORS 689.135(7), fees collected go to the State Treasury and are placed at the credit of the State Board of Pharmacy to be used only for administration and enforcement of ORS 435.010 to 435.130<sup>26</sup>. The U.S. Controlled Substances Act and the enforcement of ORS 689 (The Oregon Pharmacy Act) regulate the states pharmacists, drug outlets, and sales. The fees that may be collected by the Board are listed in Oregon Administrative Rules (855-110<sup>27</sup>) as well as in Statute (ORS 689.135). Fees are listed in OAR 855-110-0005 and broken down into categories of licensing; registration, renewal, and re-inspection of drug outlets; registration for controlled substances; and administrative. Total cost of fees will vary on the number of pharmacists, technicians, etc. at a facility, but the average fees per pharmacy per year are about \$1,500. Wholesalers, manufactures, and reverse distributors pay annual fees approximately \$400 a year, plus an additional \$50 if they handle controlled substances.

As of January 2007 there were 1,091 retail pharmaceutical drug outlets (includes mail order), 268 manufacturers, 579 wholesalers with prescription licenses (includes reverse distributors), and 63 non-prescription wholesalers licensed in Oregon. Each facility would have to be assessed a fee of \$400 per year to cover an \$800,000 pharmaceutical drug return program. The fees could be imposed on one set of Board of Pharmacy registrants and not others. The costs of putting the entire fee just on the pharmaceutical drug outlets would be an estimated additional cost of \$733 per year. If the costs were split between the manufacturers, and wholesalers, the fee would be an additional \$879 per business.

The process to assess fees for a pharmaceutical drug return program would require a legislative change to ORS 689.135. The fee and its use would have to be included in OAR 855-110. Additionally, this option would require support from the Board of Pharmacy.

The benefit of this funding option is it would essentially assess a tax on pharmaceutical users for their pharmaceutical waste. An equity issue is the downside, as the fee would initially tax current users for the disposal costs of previous pharmaceutical users.

<sup>25</sup> Full listing of ORS Chapter 689 found at <http://www.leg.state.or.us/ors/689.html>.

<sup>26</sup> OAR 435 located at <http://www.leg.state.or.us/ors/435.html>.

<sup>27</sup> [http://arcweb.sos.state.or.us/rules/OARS\\_800/OAR\\_855/855\\_110.html](http://arcweb.sos.state.or.us/rules/OARS_800/OAR_855/855_110.html).

<sup>28</sup> Full listing of fees located at [http://arcweb.sos.state.or.us/rules/OARS\\_800/OAR\\_855/855\\_110.html](http://arcweb.sos.state.or.us/rules/OARS_800/OAR_855/855_110.html).

### 8.2.3 OPTION 3: MIX OF SOLID WASTE DISPOSAL AND PHARMACEUTICAL FEES

A third option is to split the costs between a solid waste disposal fee and a pharmacy fee, essentially a blend of the first two options. For an \$800,000 program, \$400,000 would come from a solid waste disposal fee and \$400,000 from a pharmacy fee. The costs to the retail pharmaceutical drug outlets, manufacturers, reverse distributors and wholesalers would be an annual fee increase of \$206. The fee increase for municipal solid waste disposal would be an additional \$0.08 per ton.

This option would spread the program costs among pharmaceutical users and those who generate solid waste. This program would require legislative approval and a change in the Oregon Administrative Rules.

### 8.2.4 OPTION 4: STATE GENERAL FUND

The program could be funded by a general fund appropriation from the Oregon Legislature. Prior to approaching the Oregon Legislature for funding, the stakeholder group would need to determine the preferred program option and determine the preferred agency or agencies to administer the program.

### 8.2.5 OPTION 5: SURCHARGE ON WASTEWATER OR DRINKING WATER UTILITIES BILLS

This option would place a surcharge on either wastewater (sewer) utility, and/or drinking water utility bills. In Oregon, there are 3,617 public water systems of which 893 are community water systems serving 2.5 million people. There are 343 non-transient, non-community systems (schools, factories, and commercial businesses), 1,470 transient, non-community systems (campgrounds and rest areas) and 911 state-regulated systems (small subdivisions and mobile home parks)<sup>29</sup>. According to the Public Utility Commission, as of February 20, 2007 there were 30 rate and service companies and 49 service only regulated water companies. Of the 30 rate and service regulated companies, two were both a water and wastewater company. Costs of a pharmaceutical drug return program could be equitably shared on per person served among the 893 community water systems, and the 911 state regulated community water systems. The fee for an \$800,000 program, with 2.5 million water users, would be about \$0.32 a year per user.

The benefit of this program is that the 2.5 million uses of community drinking water systems would share the costs throughout the state; no one area would shoulder the burden. Yet, those residents who are off the community systems, those who have wells and septic systems, would not financially contribute to the program, but would receive services. Though most Oregonians are served by a municipality, this funding option would require approval from the Public Utility Commission to include the regulated utilities. The collected fees would need to be transferred from each utility to the program administrator.

### 8.2.6 OPTION 6: PER PRESCRIPTION FEE

This option would place a per prescription fee on each prescription filled in Oregon to finance the program. According to the Kaiser Family Foundation (2007), in 2005 there were 33,473,641 retail prescription drugs filled at pharmacies in Oregon, with an average cost of \$53.00. Financing an \$800,000 program would require a fee of \$0.024 per prescription. This figure does not include the administrative costs required to collect the fees.

---

<sup>29</sup> Further information at [http://oregon.gov/DHS/ph/awp/about\\_us.shtml](http://oregon.gov/DHS/ph/awp/about_us.shtml).

As of July 2007, Oregon does not have a system in place to accurately track prescriptions sold or to collect the fees, therefore a system would have to be developed before implementation. The burden of administrating the system might fall to the Oregon Board of Pharmacy and require legislative approval.

The benefit of this option is it would place the burden of financing the program on the purchasers of pharmaceuticals. Yet, this may also place the burden on those who can least afford it, such as those on a fixed-income. The administrative costs to collect the fee would be substantial.

#### **8.2.7 OPTION 7: PRODUCT STEWARDSHIP**

As explained in further detail in the product stewardship program option, located in section 6.6, this option would utilize an industry stewardship organization to finance and provide the program. This option keeps the program financing directly related to the producers, users and disposers of medications, and keep the financial decision-making in the control of the private sector. The downside is that while a stewardship organization could be established voluntarily, more likely state legislation would be required.

## 9 Oregon Program and Funding Recommendations

Inadequate disposal options for unwanted and unused medicines can lead to serious problems including:

1. Avoidable poisonings of both children and adults,
2. Intentional misuse of unwanted prescription drugs, especially by teenagers,
3. Water quality degradation from flushing unwanted medicines down the toilet.

An *Oregon Drug Take Back Program* could help address each of these problems. The majority of the Stakeholder Group believes that the social benefits of a successful take back program -- decreasing avoidable poisonings and reducing teen access to pharmaceutical drugs -- are the most compelling reasons for instituting an Oregon program. Since the majority of drugs that enter Oregon's waterways are excreted, current science indicates that eliminating unwanted drugs from being flushed down the toilet will have only a small impact on water quality. However, the group believes that a drug take back program is a prudent precautionary step and a component of raising the public's awareness of chemicals in the environment. A successful drug take back program will allow households and long term care facilities to conveniently return unwanted and unused drugs, both over-the-counter and prescription drugs, for safe disposal -- possibly a return bin at a pharmacy or a mail-back system.

After researching the problem and possible solutions to provide for proper safe disposal of unwanted medicines, the majority of the *Oregon Drug Take Back Stakeholders* group recommends the establishment of a product stewardship program for safe and environmentally-sound collection and disposal of unwanted medicine. This program would be similar to the successful approach employed by the pharmaceutical industry in British Columbia. In British Columbia, unwanted and unused drugs are returned to one of 844 participating pharmacies in 131 cities. The program has been in place since 1996, and is funded by the Post Consumer Pharmaceutical Stewardship Association, an industry association. The collected drugs are incinerated. In 2005, the program collected 39,710 pounds of unwanted drugs. The annual cost of the BC program in 2005 was \$190,935 (US dollars). The group believes that this approach, which has also been used in other industries in the US and Canada, has the best potential for success. If the Oregon program is as successful as the BC program, we would anticipate collecting up to 60,000 pounds of unwanted drugs annually for proper disposal.

A product stewardship program for Oregon should follow other states and communities that are seeking federal Drug Enforcement Administration (DEA) waivers or exceptions to allow drug take back programs to conveniently collect unwanted controlled drugs. Under the Controlled Substance Act regulations administered by DEA, only law enforcement officers can collect unwanted controlled drugs such as Vicodin, Demerol, Ritalin, Xanax<sup>30</sup>. Programs in Washington, California, and Maine have already requested DEA waivers or exemptions to collect unwanted controlled drugs. The Oregon Drug Take Back Stakeholders Group will support waiver requests

---

<sup>30</sup> See 21 Code of Federal Regulations 1300 - 1316

for similar drug take back programs. Also, the group calls upon the DEA to assist in establishing effective drug take back programs nationally.

The Stakeholder Group was not unanimous in its recommendation – this proposal represents the majority of the participants, but not every member.

The Pharmaceutical Research and Manufacturers of America (PhRMA) does not support the proposal.

### *9.1 Proposal*

The majority of the members of the group proposes that the pharmaceutical manufacturers and over-the-counter drug companies be requested to devise and implement a convenient and effective program for consumers to dispose of unwanted medicine. If the industry is unable to move forward with such a program, the group proposes that legislation requiring such a program be introduced in the 2009 Oregon Legislature.

The group believes an appropriate program should accept unused and unwanted medicines including controlled drugs and over-the-counter drugs. It could be a mail-back or convenient drop-box program, or a combination. However, the group believes that there may be other viable program designs that industry may choose to pursue.

The group does not support adding drug take back programs to the routine responsibilities of Oregon's law enforcement agencies. A strong statewide education program will be needed if the drug take back program is going to be successful.

### *9.2 Funding*

The group believes that industry should fund the program similar to the funding mechanism used in British Columbia and in the recycling of used batteries and electronic equipment in the US. It does not believe that the burden of this program should fall directly on consumers.

### *9.3 Additional Recommendations*

For the key subgroups, additional recommendations include:

- **Hospitals**

A survey should be conducted to better assess the drug disposal policies and practices of Oregon hospitals, especially rural hospitals with less access to reverse distributor services. Based on the information in the survey, DEQ, local government pretreatment programs, and affected hospitals should agree to a set of Best Management Practices for unwanted drug disposal that all Oregon hospitals can follow.

- **Long Term Care Facilities**

Oregon DEQ, the Oregon Public Health Division, local municipalities, and long term care providers should agree to a set of Best Management Practices for unwanted drug disposal from long term care facilities and group care homes.

- **Public**

The group recommends that a product stewardship program as presented above be developed to collect unwanted and unused medicines, including controlled drugs, from the public.

## 10 Appendices

### 10.1 Appendix A: Charter

#### **Oregon Pharmaceutical Drug Take Back Program Stakeholder Group**

#### **C H A R T E R**

##### **GOAL**

Work collaboratively with affected and interested stakeholders to develop a workable Oregon drug return system that collects and properly disposes of unwanted prescription drugs, controlled substances, and over-the-counter drugs from the end users.

##### **PURPOSE**

The Oregon Drug Take Back Program Stakeholder Group is a group convened by the Oregon Board of Pharmacy, Oregon Department of Environmental Quality, Oregon Water Utilities Council, and the Oregon Association of Clean Water Agencies.

The Group will meet to reach consensus on the best drug take back program for Oregon in its report.

##### **Proposed Scope of Work**

The Stakeholder Group will:

- 1) Review Stakeholder Group membership and consider if any key stakeholders should be added.
- 2) Provide background information and research on drug return systems including:
  - a) Oregon and US regulatory framework including handling of controlled substances under the US Drug Enforcement Administration regulations, along with Environmental Protection Agency (EPA) and Oregon Department of Environmental Quality environmental regulations;
  - b) Experiences of other communities in the US and other locations in instituting drug take back programs;
  - c) Needs and desires of all stakeholders, including Oregon pharmacy owners and operators, both independently-owned and chains; and
  - d) Possible funding mechanisms for both start up, promotion, and on-going collection and disposal costs.

- 3) Work with stakeholders to consider any necessary changes to regulations or statutes.
- 4) Develop stakeholder group consensus on the best drug take back program for Oregon that is effective, includes both controlled and routine drugs, and is as economical as possible. The proposal should outline key education and outreach elements for a successful and effective program.

Advisory Committee members acknowledge that there may be specific topics where they will “agree to disagree”, and that dialogue and discussion on controversial topics is valuable.

The Group decided to use a decision making process of “modified consensus minus one”.

The project deliverable will be a signed consensus report from the stakeholders outlining the preferred Oregon pharmaceutical drug take back program, including regulatory recommendations and permanent funding methods. Additional recommendations regarding funding for startup costs will also be addressed.

The project will start in the fall of 2006. The stakeholder advisory group process is anticipated to take 9 – 12 months. Six to eight meetings are anticipated over the course of the project. Meetings will likely be held in Salem or Portland.

### Stakeholder Group

Members of the Stakeholder Group include:

- Oregon Board of Pharmacy
- Oregon State Pharmacy Association
- Oregon Society of Health-System Pharmacists
- National Association of Chain Drug Stores
- Oregon Hospice Association
- Oregon Public Health Division - Environmental Public Health
- Oregon Environmental Council
- Oregon Poison Control Center
- Oregon Refuse & Recycling Association
- Oregon Association of Clean Water Agencies
- Oregon Water Utilities Council
- Oregon Department of Environmental Quality
- Oregon State Police
- Oregon Association of Chiefs of Police
- Oregon Sheriffs Association
- Tualatin Valley Water District
- Willamette Riverkeeper
- Pharmaceutical Research and Manufacturers of America (PhRMA)
- State Medical Examiner's office/Clackamas County Medical Examiner
- US Drug Enforcement Administration
- Council of Local Public Health Officials
- Northwest Product Stewardship Council
- Covanta Marion Waste-to-Energy facility



## Meeting Organization

The meetings will be co-chaired by Tom Penpraze of the City of Corvallis, and Tony Burt of the Oregon Board of Pharmacy. Janet Gillaspie of the Oregon Association of Clean Water Agencies will provide meeting facilitation and organization assistance. A graduate student at Oregon State University, Monica Hubbard, will provide research and writing services to the stakeholder group at the direction of the co-chairs and facilitator.

The co-chairs will work with the facilitator to generate agendas cooperatively. Committee members will have an opportunity to add items to the agenda. Occasionally, outside speakers with a particular expertise may be asked to address the Stakeholder Group. Time will be set aside at each meeting to hear from interested members of the public -- although this time may be limited to ensure the Stakeholder Group can accomplish its mission in an efficient manner.

Each participating organization is responsible for appointing a qualified individual to participate in the Stakeholder Group. Both a primary contact and an alternate will be allowed to participate in the group. The primary contact and alternate agree to provide each other information to ensure both are prepared to fully participate in the Committee's discussions and recommendation development.

A general summary of each meeting will be prepared.

## 10.2 Appendix B: Stakeholder Meeting Summaries

### 10.2.1 MEETING 1: NOVEMBER 9, 2006

#### Oregon Drug Take Back Stakeholder Meeting

9 Nov 06

SALEM, OREGON

Attendance at end

#### INTRODUCTIONS

The group introduced themselves.

Janet Gillaspie of ACWA set a few ground rules for the group, including:

- Stay with Group
- No side conversations
- Cell phones off or to stun
- No Blackberries
- Learn from others
- Contribute ideas

#### Purpose of Stakeholder Group

Co-Chair Tom Penpraze outlined his views about the need for the stakeholder group. He indicated that from a drinking water and wastewater utility point of view, drugs being flushed down the drain are a problem. Municipal drinking water treatment plants are not designed or operated to remove drugs, and wastewater treatment systems are not designed to remove drugs from the treatment systems.

Penpraze advocated that pollution prevention is the best way to address concerns about possible contaminants reaching waterways -- keep unused drugs from reaching the landfill by being discarded in the trash or the wastewater treatment system by being flushed down the toilet.

He continued that an effective drug take back program will benefit Oregonians -- not just for water quality reasons, but also addressing concerns related to drug abuse prevention and reducing accidental poisonings.

Penpraze indicated that the drug take back program should meet goals of public health protection, impacts on water supply, environmental protection, and impacts on fish and wildlife, such as impacts on fish antibiotic resistant bacteria. There are many good reasons to build an effective drug take back program for the state.

Co-Chair Tony Burt continued that people come at this issue from two perspectives -- and both are around the table in the meeting. There are the water supply and wastewater contamination issues with chemical traces in surface and ground water.

The other is the harm that controlled substances on have young people and others -- how do we get the unwanted controlled substances out of the system to stop addiction. The misuse of illegal prescription drugs is the fastest growing area of drug abuse, he said. The issue of drug abuse is what is driving the public issues. The environmental issues are important, but the drug abuse is the "headline grabber".

Burt continued by explaining that he is on the staff of the Board of Pharmacy. The Board of Pharmacy is a 7-member citizens commission appointed by the Governor and confirmed by the Senate. The Board's authority ends when the drug is prescribed or delivered to the patient. This program is focused after that step, observed Burt.

He continued that the Board of Pharmacy strongly supports the effort of this group, and has passed a rule to facilitate a rule to take back noncontrolled substances (unwanted, noncontrolled). The obstacle is the return of controlled drugs, and the DEA regulations. The challenge is to create a program that can deal with the polluting substances, but is not butting against the wall of the DEA regulations.

We can facilitate getting noncontrolled drugs out of environment; the challenge will be to recognize what we can achieve.

### Purpose of group

The group added some thoughts about the drug take back program before it started tackling its charter. Items mentioned included:

- Lisbeth asked what drugs can be returned – Burt indicated that there are pharmacies that can return noncontrolled drugs. Issues include: work load, disposal options, and company policy.
- Gerry added that there are two goals – cleaning up the water and to get the drugs out of the cupboard.
- Currently, there is a reverse wholesaler for returning drugs from the pharmacy or drug store – drugs that have not been prescribed. The nearest reverse wholesaler is CA.
- What is the preferred disposal method for collected drugs – likely incineration.
- Boudouris indicated that DEQ had recommended that drugs be flushed down the toilet, but does not recommend that anymore. They currently recommend disposal as solid waste. Now there are more concerns about long-term care facilities -- this is a 'Catch 22' for DEQ.
- Jim Thompson indicated that the reverse wholesaler system is likely to be a solution -- it is intended for large amounts of untouched, known drugs.

### Charter Issues

The group worked through the draft charter. Under **Goal**, it agreed to these changes:

- Target substances are prescription drugs, controlled substances, and over-the-counter drugs. This includes veterinary medicines.
- Broaden scope beyond "consumers" to "end users" – this would include long-term care facilities and other institutional settings.

Under **Scope of work**, Burt indicated that there is no need for rulemaking at this time. The paragraph was removed.

There was discussion about the funding element of the program -- the will of the group was to retain the phrase.

There was discussion about what was "consensus". Consensus is 100% "can live with it" said Gillaspie. After discussion, the group asked that the February meeting include a presentation on various consensus models that might be used.

Revise statement to read: *"Work with stakeholders to consider any necessary changes to regulations or statutes."*

The group had additional suggestions for adding groups to the Stakeholder inventory -- addressed later in the meeting summary.

The group noticed that the scope of work element was repeated in the draft and that should be corrected.

A copy of the revised charter is attached.

### Stakeholder Inventory

The group suggested additional stakeholders for the process. Those suggestions included:

- Oregon Health Care Association (long term care providers)
- American Red Cross
- Oregon Fish & Wildlife Department/US Fish and Wildlife Agency
- US Geological Survey
- Department of Human Services -- Division of Aging (SDSD)
- Generic Pharmaceutical Association
- Consumer Health Products Association
- Oregon Retail Council
- Oregon Medical Association
- Oregon Nurses Association
- Oregon Association of Hospital and Health plans
- Oregon Grocery Association

The stakeholder group members that suggested these groups will forward contact information to Gillaspie.

The people that made these suggestions will e-mail Gillaspie the contact information for the group that they suggested.

### Meeting Outline

The group reviewed the draft meeting schedule.

The group made these suggestions:

- February -- add consensus decision making model; add infrastructure inventory; add update from the programs listed plus the City of Newberg pilot project
- March -- add legislative strategy assessment

Etter suggested that a second DEA-type conference might also be a good step to add.

## Scheduling

The group discussed scheduling its meetings. Miller highlighted that for the lobby types that will be participating, scheduling any meetings Monday through Thursday is very difficult. Friday meetings would be best. The group used a chart to indicate their meeting preference. Gillaspie will review the chart and distribute a draft meeting date to the group and hopefully schedule the rest of the meetings.

The Willow Lake Treatment plant is likely a good spot for the meetings.

## Report Table of Contents Review

The group added - 'obstacles & constraints' under "program elements, and 'regulatory and legislative recommendations'

## Meeting Check Out

The group considered the elements of the meeting that needed improvement, and those elements that worked well.

The meeting needed more coffee and more background information on the problem would have been useful.

The elements of the meeting that worked well included:

- Organization of the meeting
- Meeting space
- Planning that went into preparing for the meeting
- Having a draft charter to work from
- Posting information and studies on the ACWA web site

## Other Items

Etter indicated that there is a list serve for those interested in tracking this issue nationally. Contact Etter to be placed on the list serve,

Gillaspie highlighted a series of reports loaded on the ACWA web site related to drug take back programs. She asked stakeholders that have reports and information to share to forward it to her for posting on the site.

Overall the group was interested in additional background information about the extent and characterization of the problems related to unwanted drugs from a water quality, accidental poisoning, and illegal prescription drug abuse perspective.

Gillaspie indicated that that information would also be presented in the workshop scheduled for 11/13/06, and the presentations from the workshop would be posted on the ACWA web site.

## Items to learn about

The group started a list of items they wanted to learn more about – this included:

- Reverse wholesale distribution system
- Preferred method of disposal in Oregon for collected drugs

**Stakeholders Attending:**

- Tom Penpraze, City of Corvallis (Oregon Water Utilities Council)
- Tony Burt, Oregon Board of Pharmacy
- Gerry Migaki, Oregon Society of Health-System Pharmacists
- Jim Solvent, Council of Local Health Officials/Council of Environmental Health Supervisors
- Therese Huntsinger, Oregon Environmental Council
- Brenda Bateman, Tualatin Valley Water District (Oregon Water Utilities Council)
- Kristan Mitchell, Oregon Refuse & Recycling Association
- Shawn Miller, National Association of Chain Drug Stores
- Bill Etter, Drug Enforcement Administration
- Tonya Drayden, Oregon Poison Center
- Lt. Mike Dingeman, Oregon State Police
- Jim Gardner, PhRMA
- Abby Boudouris, Oregon DEQ
- Jim Thompson, Oregon State Pharmacy Association
- Ann Jackson, Oregon Hospice Association

**Others Attending:**

- Jeff Bickford, Marion County Solid Waste
- Sharon Olson, City of Eugene
- Nancy Toth, Eugene Water and Electric Board
- Lizbeth Ward-Fowler, Oregon Poison Control (alternate)
- Marney Jett, Clean Water Services
- Brett Hulstrom, City of Portland
- Lacey Bettis, Oregon State Police (alternate)
- Holly Sears, Oregon Refuse & Recycling (alternate)

*Janet Gillaspie of ACWA facilitated the meeting.*

10.2.2 MEETING 2: FEBRUARY 9, 2007

**Oregon Pharmaceutical Drug Take Back Stakeholder Meeting**

**09 February 2007**

**Salem, Oregon**

**MEETING SUMMARY**

**INTRODUCTIONS**

The participants introduced themselves. Janet Gillaspie, ACWA, pointed out the copies of the group's charter available around the table and directed the attendees to review the highlights from the last meeting.

**Support for Drug Take Back Program**

The meeting participants went around the table and each described the reasons their group supports a drug take back program. The reasons included:

- The responsible way to tackle the problem is to educate the public. Drug take back should be the public's responsibility with all stakeholders participating. This is not an environmental problem. Awareness campaign focused on drug control and safety issues is what is needed. Support proper disposal.
- Good stewardship program – concerned about improper prescription drug abuse
- Remove some pharmaceuticals from public water supplies (repeated)
- Public perception of drinking water quality and ecological concerns
- Wastewater treatment plant concerns; need to inform the public of the proper and safe disposal method (repeated)
- Need a unified message on the proper and safe disposal method
- From a public health point-of-view, support drug take back from a safety issue in both homes and care settings
- Safe disposal of unwanted medication
- Easy-to-use program to get drugs out of sewers; help wastewater treatment agencies meet discharge standards (repeated)
- Reduce pharmaceutical wastewater into waterways – potential human health and wildlife issue – need to be able to tell people the right way to dispose of unwanted medicines
- Appropriate and legal disposal of unwanted drugs
- Safe, secure and on-going program to make drug return as safe and convenient as drug buying
- Part of having a safe and healthy community. Need to avoid garbage disposal – household hazardous waste collection stations are not the right vehicle for drug disposal. Water quality concerns, including Tribal Nation concerns for salmon

- Groundwater, surface water, and drinking water concerns – want to keep drugs out of garbage also. Need tools for public to have safe return system. Should be using the precautionary principle for tackling this issue now.

### Concerns about Drug Take Back Program

The group also expressed their concerns about a drug take back program. These included:

- Focus on public safety message – this is a poison control issue, not a problem in water. The microcontaminants found in water are over-the-counter products like insect spray (DEET) and beauty products. Education is the key
- Not an unfair workload or cost on pharmacists or other regulated entities
- Program must meet legal requirements
- Funding must be fair, acceptable, and equitable
- Safety of program staff as drugs are consolidated
- Impact of drug incineration on air quality
- Ease of use – the program needs to be very easy to use; needs long term funding base
- Roles, scope and responsibilities of everyone involved must be very clear. Who will fund the program? Who is in charge of the program? What are the roles of others involved?
- Education is very important – this is more a poison control issue than a water quality issue
- Program must be legal, simple, useable, and cheap
- Keep in mind that tracking the programs success using water quality indicators is not likely to be possible
- Drug take back program only addresses a small part of the overall problem of pharmaceuticals in water quality. Need to review the air quality impacts of increased incineration
- Oregon State Police has concerns about being the only law enforcement agency collecting drugs. OSP concerns include volume, costs, and proper disposal. All Oregon law enforcement agencies should be involved in collecting drugs. Getting firm numbers about the amount of drug diversion that is coming from the medicine chest -- rather than from false or frequent prescriptions, over the Internet or from other countries -- will be difficult.
- Design the program you want first; tackle how to fit that in the regulations later
- Anticipate a pent-up demand from the public for proper disposal when it is available; the public demand may drive the program
- Public concerns may flood a drug take back program; important to tackle who pays – not appropriate for government to pay these costs. The costs should be shared across all players. Program should work as well in rural Oregon as it does in urban Oregon.

Jack Geisser of PhRMA suggested that the Generic Manufacturers' Association and the Consumer Products Council be invited to the meetings as they are stakeholders. Gillaspie asked him to provide contact information.

Tom Penpraze of the City of Corvallis asked if there was a uniform definition of "pharmaceutical." Gillaspie pointed out that the definition had been agreed upon and was part of the group's charter.



---

Gerry Migaki of the Oregon Society of Health System Pharmacists (OSHP) stated that basing success on water quality issues alone was not the best strategy. Poison control and prevention of drug abuse are also important factors. This opinion was seconded by Jim Hill of the City of Medford and David Stitzhal of the Northwest Product Stewardship Council.

## **PH:ARM**

Stitzhal and Sego Jackson of the Snohomish County Solid Waste Management Division presented information on the pilot drug take back program in the Puget Sound area, PH:ARM. Stitzhal stated that the project consisted of 7 collection sites in Kaiser Group Health locations. In 8 weeks, 55 buckets at one gallon each of returned drugs were collected. In the future, collection sites at Bartell's Drugs locations are planned. Controlled substances were not allowed in the collection buckets.

A survey of the buckets showed that they contained almost all pharmaceuticals. There was some garbage in the buckets, but not much. The project is trying to change the federal law on controlled substances. They have petitioned the U.S. Department of Drug Enforcement Administration for a waiver and hope to mimic the success of the British Columbia program.

Jackson said that they provided specially designed plastic buckets and metal boxes for the collection sites. They are moving toward a design of a wheeled tote system. The initial take back program was to have been a quiet launch, but the information was published in a Group Health newsletter and interest was greater than anticipated. He recommended a tight communication plan and a designated team to control information for future take back projects. Funding was provided by government funds as well as support from Kaiser Group Health. There is tremendous pent-up demand for disposal sites from the public, he added.

Tony Burt, Oregon Board of Pharmacy, asked about supervision of the drug return box and concerns about the potential mixture of incompatible substances. Jackson was unsure whether there was any direct supervision of the drug receptacles, but the boxes were in the clinics in plain sight. The size of the drug container deposited by the consumer is limited due to the size of the opening.

Hill brought up concerns with security of the boxes and also with Health Information Privacy Act (HIPAA) rules. Jackson said that the boxes do not increase security concerns. The warehouse that holds the full buckets is a secure facility.

## **Program Cost Options**

Monica Hubbard of Oregon State University presented a PowerPoint program on her research of the cost estimates for funding different types of drug take back programs. A copy of the presentation is posted on the ACWA website at [www.oracwa.org](http://www.oracwa.org). Gillaspie distributed a feedback chart for participants to complete. Stakeholders are to review the details of each drug take back program option and provide their detailed comments to the ACWA office by 1 March 07.

Geisser expressed concerns about mailing drugs. The packages/envelopes would be identifiable and would be easy for drug abusers to take.

Burt stated that since insurance companies allow insurers to obtain up to 90 days of medications at a time that there will be larger amounts of drugs in the pipeline. He speculated that there will be more drugs received by a take back program in Oregon than the one in British Columbia.

Gillaspie will send the feedback form to the stakeholders electronically. Rebecca David, Oregon State Police, pointed out that there are shipping regulations that may be needed to be reviewed if drugs are to be mailed or shipped. Hubbard will follow up with David to inventory U.S. Department of Transportation regulations that might affect the program.

Jackson suggested that Hubbard look at potential changes in regulations that might be needed. He also suggested getting additional information such as what treatment costs would be for hospitalization of a poisoned child or rehabilitation of a drug-addicted individual. This would allow for better perspective of the costs of the take back program versus the costs of not having a program.

The group discussed several other ideas for take back programs:

- Mailing unwanted drugs directly to a licensed hazardous waste incinerator
- Mailing unwanted drugs to the DEA

The feedback forms regarding program costs are to be returned to the ACWA office (fax at 503-236-6719 or e-mail at [Gillaspie@orcwa.org](mailto:Gillaspie@orcwa.org)) by March 1, 2007.

### Pharmaceutical Take Back Programs in Adult Care Facilities

Dr. Brenda Bateman, Tualatin Valley Water District, presented a PowerPoint presentation called *Pharmaceutical Take Back Programs in Adult Care Facilities*; an overview of a program in Newberg, OR. A copy of the presentation is posted on the ACWA web site at [www.orcwa.org](http://www.orcwa.org).

There was discussion regarding the inventory process in collecting and documenting the take back of pharmaceuticals. Different law enforcement jurisdictions may need an additional or different inventory process than that established in Newberg. Protocols need to be established that will prevent the diversion of drugs. Migaki asked if consent was needed to destroy prescriptions held in an adult care facility; the group thought consent had likely already been provided.

### Decision Making Model

Gillaspie stated that the stakeholders needed to decide on which decision-making model would be best for the group. A handout describing different decision making models was distributed. Burt presented an additional model, the *consensus minus one model*. This model is where an agreement can be made with one dissenting vote noted. Hill stated that he had been in groups in the past that had used this model. Geisser disagreed with the adoption of this model, especially if funding issues are being decided and said that if complete consensus could not be achieved, then an issue should be left out of the proposal.

Teresa Huntsinger, Oregon Environmental Council, felt the modified consensus model would work best. Stitzhal suggested that the outcome defines the model; if the outcome is to be a report with recommendations then a modified consensus model would be most effective.

To decide this issue, the group moved to voting. The vote was as follows:

- The vote for the *total consensus* model was 1.
- Penpraze suggested a *modified consensus model with a final vote* option.
- The vote for a *modified consensus* model was 5.
- The vote for a *modified consensus minus one* was 9.

The model adopted is the modified consensus minus one. Gillaspie will revise the group charter to reflect this.

### **Small Groups**

Gillaspie stated that small groups of stakeholders will tackle drug take back program issues, such as the preferred program type and funding issues, for three separate drug user groups:

1. Public group - Chair, Tonya Drayden-Oregon Poison Control Center
2. Adult care group - Chair, Brenda Bateman, Tualatin Valley Water District
3. Hospital group - Chair, Kevin Masterson, Oregon DEQ

Each meeting participant was invited to select the group that they wished to participate in. Small group recommendations will be presented at the April meeting.

The next meeting will be held March 9, 2007

### **Attending the meeting were:**

- Jack Geisser (by phone)-PhRMA
- Rebecca David-Oregon State Police
- Monica Hubbard-Oregon State University
- Sego Jackson- Northwest Product Stewardship Council / Snohomish County Solid Waste Management Division
- David Stitzhal-Northwest Product Stewardship Council
- Mike Dingeman –Oregon State Police
- Teresa Huntsinger-Oregon Environmental Council
- Dave Leland-Department of Human Services – Drinking Water Program
- Tom Penpraze-City of Corvallis
- Tony Burt-Board of Pharmacy
- Abby Boudouris-DEQ
- Jane Thompson-City of Springfield
- Sharon Olson-City of Eugene
- Jim Hill-City of Medford/ACWA
- Gerry Migaki-Oregon Society of Health System Pharmacists
- Brenda Bateman-Tualatin Valley Water District
- Marney Jett-Clean Water Services
- Janet Gillaspie-ACWA

*Notes taken by LD Michaelis. 2/9/07*

## 10.2.3 MEETING 3: MARCH 9, 2007

**Oregon Pharmaceutical Drug Take Back Stakeholder Meeting**  
**09 March 07**  
**Salem, Oregon**  
**MEETING SUMMARY**

March 9, 2007 Oregon Drug Take Back Stakeholder Meeting Summary

**INTRODUCTIONS**

Tom Penpraze chaired the meeting. Janet Gillaspie asked if there were any changes to be made to the agenda; no changes were requested. The meeting participants introduced themselves.

**Oregon Pharmaceutical Drug Funding Options**

Monica Hubbard presented her revised research on program costs. The proposals include increased labor costs as well as an 150% increase of pharmaceutical waste amounts (increase over BC model since US drugs are often dispensed a month at a time). Hubbard reviewed the previously outlined options for the Drug Take Back Program:

1. Installed – no mailer
2. Installed with mailer
3. All pharmaceuticals returned at local law enforcement
4. Oregon State Police mailer
5. Reverse distributor mailer

Rebecca David emphasized that there is a stigma associated with visiting a police station. Abby Boudouris asked if it was assumed that there would be one pill bottle per mailer. She stated that larger drug amounts would be returned from hospice and care facilities. Hubbard stated that the mailers would be designed to hold up to one half pound of drugs. Jim Hill asked if there would be an ability for a consumer to use a different type of box or shipping method, other than the mailer, to send in the pharmaceuticals. Hubbard agreed that the consumer could use a different method, if they wished. Marney Jett questioned if the mailers would be available from clinics and pharmacies. Hubbard said yes, but it is still unclear how they will be distributed.

Jack Geisser questioned if all the drugs received back could be assumed to be controlled substances, thus removing the need to sort the materials when received. Bill Etter stated that in order for pharmacies to receive controlled substances there would need to be a police presence on site or they would have to receive an exemption from the Drug Enforcement Administration (DEA).

Jim Hill said that the hospitals in Southern Oregon use reverse distributors for unwanted drugs. Reverse distributors do not count the drugs – they assume that they are disposing of controlled substances. Etter stated that the DEA exemption requested by the reverse distributor EXP of California would allow them to receive drugs from a non-registered user.

Brenda Bateman said that in the option where the drugs were to be returned to law enforcement offices, the drugs will need to be sorted as there are a handful of types that are not accepted at the incinerator in Brooks. Boudouris asked if another option to consider would be one where consumers mailed pharmaceuticals to hospitals since the hospitals use reverse distributors. This would be particularly useful for people living in rural areas or small towns. Brett Hulstrom questioned if liquids would be received for disposal. Hubbard stated that liquids had not been considered in the mix. Sego Jackson said that the pilot project in Puget Sound only considered disposal facilities that were licensed hazardous waste management facilities.

Gillaspie asked the group if they felt this was the best review of options; if the proposals were on the right track.

Geisser stated that he felt the law enforcement costs estimated were too high. Gerry Migaki asked if reverse distributor mailer (option 5) was used and a consumer had a lot of pharmaceuticals to return, could they use multiple prepaid mailers. Hubbard said that they could use as many as needed

Jackson questioned if costs would increase if the program used a hazardous waste incinerator facility. Hubbard said that options 2, 3, and 4 anticipate use of a licensed hazardous waste incinerator.

Hill emphasized that a contract for disposal through a reverse distributor should be placed out for bid, so that more than one vendor can offer a proposal. Each reverse distributor would need clearance from the DEA. Boudouris stated that facilities considered should be located only in the US. Those located outside the US are problematic.

The group had no other program options to suggest and no further changes to the cost estimates for the drug take back program.

### **Drug Take Back Program funding options**

Hubbard presented her research on funding options. The options are:

1. Waste Disposal fees
2. Pharmaceutical fees
3. Mix of 1 & 2
4. State General fund
5. Water Utility charge

Geisser emphasized that that the program needs to be considered a social issue, not an environmental one. He also objected to option 2, pharmaceutical fees. Fees need to be equitably distributed. By levying fees only on pharmaceuticals, not all of the stakeholders are shouldering their share of the costs, he stated.

Hill questioned if the funding options were for a pilot program or for an ongoing one. Hubbard stated they were for an ongoing program. Migaki asked if there was anticipation for a larger amount of disposed drugs in the first year of the program; Hubbard said no.

Gillaspie asked for comments from the group regarding the funding options outlined.

The comments included:

- A mix of funding options makes for more work and less stable funding. The reverse distributor option is the best.
- We are asking the wrong people to pay if this is to be an ongoing program.
- Mixing funding options is a good idea as the responsibility is then spread around; each area is impacted by drug disposal. A pharmaceutical fee as the only funding source is not a feasible approach.
- Do not ask participants to pay when they turn in the drugs. It will be difficult to collect fees from the different water agencies if a water utility charge is assessed. Solid waste fees may be simpler. Consider adding both commercial and industrial wastes to the solid waste fees to broaden the base paying the fee.
- Legislative appropriation is best for administering a statewide program but difficult to get.
- There should be an emphasis on product stewardship. There should also be consideration if this is the right use of solid waste tipping fees -- the solid waste industry group may have concerns about the fees. Consider who is impacted and who benefits and put a fee system in place based on the beneficiaries. Need to weigh the solid waste fee against the other solid waste funding needs.
- Difficult to institute a wastewater or drinking water utility fee; try to make the system as simple as possible.
- Pharmaceutical fees are best – those who use the drugs pay for the disposal of the drugs.
- Any funding option that works is acceptable.
- The pharmaceutical industry representative suggested that the State General Fund would be the best funding solution. If not that, then funding responsibility should be shared equitably by everyone affected, including the consumer health product industry, not just the pharmaceutical industry. Some large stakeholders, such as the consumer health products industry, are not represented in our forum.
- Utility billing is difficult and state general fund dollars are not possible. Adding more items to the solid waste tipping fee is not a good idea. Use a product stewardship model for developing the funding proposal. That helps get valuable information about medications that are not being used into the 'loop'. Need to ensure that generic and over-the-counter drugs are included also.
- Spreading the costs to the greatest number of people would be best as the results are for the greater good.

### Other Ways to Fund a Program

Gillaspie asked participants to continue with comments on other ways to fund a drug take back program. The comments included:

- The best option would be to get voluntary funding from all groups. Expecting a legislative fix would be an uphill battle.
- We need to look at this problem "cradle to grave". Create an incentive by getting the pharmaceutical manufacturers to pay. State General Funds not likely.
- A taxing model based on consumption would be the fairest.
- See who benefits – it is kids, fish, and wildlife. Use a product stewardship model and craft a program that can work nationally -- not just in Oregon.

- Pharmaceutical fees or solid waste fees would be the best and most usable solution.
- Explore a product stewardship model, like the auto mercury switch group – more information is available at <http://www.elusolutions.org/about.htm>
- There are many good options; not sure which is best.
- Industry should contribute. Look at the existing model of the mercury auto switch program as a template.
- Sharing fees would be the most likely source of funding.
- Everyone benefits from improved water quality, not just the consumers.
- A small tax should be levied on each prescription.
- While legislative change might be difficult, it is still possible with enough supporters involved.
- Taxes on prescriptions would raise prices.
- We need to mimic the British Columbia model where industry trade groups provide funding.
- A \$.026 tax on each prescription in Oregon would raise \$800,000 for this program.

### Small Group Work

The three small groups – Hospital, Public, and Adult Care met to discuss their topics. The respective group chairs reported on the progress of their groups.

**Hospital – Kevin Masterson, DEQ:** Approximately 90% of hospitals are covered by existing systems. The group will follow through with the Oregon Hospital Association (OHA) to see what smaller hospitals are doing to dispose of unwanted drugs. The group will also determine what method is used to dispose of chemotherapy drugs.

**Public – Tonya Drayden, Oregon Poison Center:** The ideal system would include drop boxes and mailers. The ability to use drop boxes for controlled substances would be necessary and reverse distributors would be used to collect the drop boxes. Etter stated that the reverse distributor would need to be allowed by the DEA to handle the boxes without law enforcement responsibility. Also, need to have an education program in place to inform the public. This would include public service announcements and visits to community groups by the Oregon Poison Center.

**Adult Care – Brenda Bateman, Tualatin Valley Water:** Staff of the facilities will be unable to take drugs from the facility to a disposal site. Law Enforcement staff would likely be needed to collect the drugs. A reverse distributor that has a custodial exemption from the DEA would be a useful option. Adult foster homes and hospice would participate more as a household entity. Hospice is a different issue as they are dealing with hazardous substances and controlled drugs.

Hill asked if this group could offer support to ensure that EXP receives the DEA exemption it has requested. A letter to DEA will be drafted under Tony Burt and Tom Penpraze signatures supporting the exemption.

Gillaspie proposed visiting Ann Jackson at the Oregon Hospice Association to talk about Drug Take Back issues.

Drayden will contact the California Poison Control system to get their support for EXP's DEA exemption request.

The next meeting is scheduled for April 13, 2007, 9:30am to Noon at Willow Lake Treatment Plant in Salem.

### Other Issues

The group recorded these issues to be further explored:

- Consider how the mailer will handle larger quantities such as from hospice or long term care facilities?
  - Maybe just have the mailer large enough to hold about ½ pound and instruct people not to 'overstuff' it, but to get more mailers
- Some provision for "cradle-to-grave" responsibility should be added to any waste disposal contract; ensure that the returned materials are being properly disposed of and not shipped out of the US
- Add the information on the USDOT regulations
- How to handle liquids?
  - Group thought that these might not be able to be handled in the program
- There are specific types of only six pharmaceuticals that are not acceptable at Brooks incinerator – track this
- Maybe the return program should be just to the hospital pharmacies (some thought no)

### Meeting 'to do'

- Add information on US DOT regulations to report to ensure allowable thresholds for mailing are not exceeded
- All participants will review the list of possible grant agencies for start up funding and add their additional ideas; submit to ACWA office by 3/23/07
- Explore product stewardship models, such as the auto mercury switch group example
- Write a letter of support to the appropriate person regarding the DEA exemption for the EXP reverse distributor in California
- Get the consumer products and over-the-counter groups involved

### Attending the meeting was:

- Jack Geisser (by phone)-PhRMA
- Rebecca David-Oregon State Police
- Monica Hubbard-Oregon State University
- Sego Jackson- Northwest Product Stewardship Council / Snohomish County Solid Waste Management Division (by phone)
- Bill Etter-DEA
- Kevin Masterson-DEQ
- Dave Leland-Department of Human Services – Drinking Water Program
- Tom Penpraze-City of Corvallis
- Tonya Drayden-Oregon Poison Center
- Abby Boudouris-DEQ



- Jane Thompson-City of Springfield
- Karen DeBaker-Clean Water Services
- Jim Hill-City of Medford/ACWA
- Gerry Migaki-Oregon Society of Health System Pharmacists
- Brenda Bateman-Tualatin Valley Water District
- Marney Jett-Clean Water Services
- Brett Hulstrom-City of Portland BES
- Janet Gillaspie-ACWA

*Notes taken by LD Michaelis, 3/09/07*

## 10.2.4 MEETING 4: APRIL 13, 2007

**Oregon Pharmaceutical Drug Take Back Stakeholder Meeting****13 April 2007****Salem, Oregon****MEETING SUMMARY****INTRODUCTIONS**

Tom Penpraze and Tony Burt co-chaired the meeting. Janet Gillaspie asked if there were any changes to be made to the agenda; no changes were requested. The meeting participants introduced themselves.

There are two more meetings of this stakeholder group scheduled for May 11<sup>th</sup> and June 8<sup>th</sup>. The group needs to determine what happens after the last meeting.

The sub-committees formed at the last session presented their findings regarding the three take back groups:

- Adult Care Facilities
- Hospitals
- Public

**Adult Care Facilities**

Brenda Bateman presented the information for the Long Term Care Facilities group. She stated that there are three types of long term care facilities:

- Residential Care
- Assisted Living
- Nursing Homes

The group recommended that the preferred model for a drug take back program for this group is one where an entity, such as law enforcement or a reverse distributor, came to the facility to collect the unwanted medicines. After discussion, the group wanted additional information about the use of reverse distributors for the larger residential care, assisted living, and nursing homes. Perhaps, these facilities will operate more similar to hospitals, and the smaller residential care facilities would operate more similar to a public program.

In the state of Oregon there are approximately 600 facilities with the capacity to care for over 35,000 individuals. All of these facilities are licensed by the state and disposal of drugs is handled by nursing staff with the pharmaceuticals being sorted into controlled and noncontrolled bins. They typically flush the noncontrolled drugs. Some of the facilities with a direct relationship with a pharmacy have the ability to send back unopened, noncontrolled drugs to the pharmacy for reuse.

There are established protocols for disposal of drugs, controlled and noncontrolled, at each facility. A mail back program would be difficult to administer at this level given the volume of the unused drugs. The preferred model for a take back program would be one where an entity, law enforcement or a reverse distributor, came to the facility to collect the discarded medicines.

Education and outreach would be easier to implement with this group since they are generally licensed by the State of Oregon. Bateman agreed that the preferred option for the long-term care facilities is probably not the best one for the public.

A reverse distributor would need an exemption from DEA to be able to go directly to a care facility to collect drugs for disposal.

Tony Burt stated that once drugs are out of the hands of the professional staff, the drugs cannot be returned to the pharmacy. There would be less professional, medical care at the home hospice and foster home level. Hill supposed that the more involved professional care would be provided by the more expensive centers.

Penpraze asked if there are impediments to a take back program being implemented through reverse distribution in a facility. Gerry Migaki stated that there can be costs to have the drugs taken back by a pharmacy, but in other cases there could be offset credits given.

Gillaspie asked about the cost of establishing programs in facilities. The Portland Police Bureau does not likely have the resources to tackle a drug collection system for long-term care facilities in Portland.

Jim Thompson stated that the variation in sizes of facilities - adult foster homes versus large, institutional care centers - could be a problem. Mom and pop facilities will be harder to monitor. Becky David said that smaller group homes would likely fall under the public/residential guidelines. Bateman agreed that the preferred system for long-term care facilities would be best for the larger centers.

Burt said that the larger the institution the more likely there will be a protocol in place to send back drugs. Many of the larger facilities may already have a relationship with a reverse distributor. Education about the availability of reverse distributors should be implemented. In the Newberg take back program, Bateman said that the facilities involved purchased lock boxes with their own funds. There was concern that there might be funding concerns at the lower level facilities.

Jim Hill asked if perhaps having an established drug take back system could be required by the accreditation process. Gillaspie agreed that Oregon Health Services could establish this requirement. If this is a requirement, then pharmacy policies should be in alignment.

There was a recommendation that *Health Care Without Harm* be invited to participate in this endeavor.

## Hospitals

Kevin Masterson presented the findings for the Hospital Sub-committee. The sub-committee will be doing a survey involving a larger number of hospitals, in the near future. The group will be asking the Oregon Hospital Association for help with distribution of the survey.

All larger hospitals currently use reverse distributors and/or hazardous waste contractors. There may be gaps in drug disposal at the smaller community hospitals, as well as gaps in education and training. There are 300-400 hospitals around the state. It appears that there may be gaps in practices to correct but there is no need to establish a separate hospital-focused drug take back program from the ground up. A mentorship program, with larger hospitals mentoring smaller hospitals or smaller hospitals pooling their knowledge and resources may be workable options.

Hill stated there are concerns with liquid drugs and infrequent incidents when drug dispensing is interrupted by an event. Penpraze emphasized that these situations are exceptions. There was a discussion regarding hospital accreditation policies and procedures.

Kristan Mitchell discussed the difference between capture of hazardous vs. medical wastes. There were questions regarding the licensing and procedures of the growing number of surgi-centers. What group would they belong in? Migaki stated that these centers are licensed and run by physician groups. Migaki, Hill and Masterson will draft a survey to present to the hospitals. They will see if they can get the Oregon Hospital Association to assist them. Masterson will lead the effort.

## Public

Tonya Drayden was not available to present the public group recommendations. Gillaspie polled the group and asked them to provide their ideas for the best public drug take back system. The responses included:

- Make it as easy as possible for consumers to use. The mailer option would be easiest to use.
- There are issues with a mailer – who should the drugs be mailed to. We need to first determine a system as to who receives the returned drugs. Patients don't know what a controlled drug is versus a noncontrolled drug. Need to establish a program where this is not a concern. Also, consider mailing the drugs to the DEA
- The program must be simple to use. Expecting consumers to deliver drugs to a law enforcement office is unrealistic. The mail back program appears to be best.
- Skeptical of a mail back program; it may put postal workers at risk. Drop boxes owned and administered by a private company would work best.
- Placing drugs in the garbage is a sensible solution; mailing will be too expensive. The public is only concerned about the costs to them. Review the priorities; is this truly a major concern?
- A drop box system is best. In rural areas, mailers would be needed – and might be teamed with a collection event
- Mail drugs directly to a reverse distributor, if DEA exemption can be obtained.
- ~~Drop boxes will create more work for law enforcement. If drugs are returned to police offices, each item may need to be checked in and accounted for. OSP stressed that their internal procedures and controls must be followed~~
- Drop boxes at pharmacies serviced by a reverse distributor would be the best solution. A mail back system should also be established as an alternative option and all drugs should be handled as controlled to avoid the sorting issue. Consider the priorities, not every pill can be accounted for. Garbage may be the correct disposal method for some materials.
- Pharmacists would likely be agreeable to distribute envelopes, but they will not agree to a drug take back system that would require them to devote time to counting drugs. Pharmacies do not have room for a 20-gallon container; their storage facilities are limited. To buy in, pharmacists must be involved a minimal amount of time and have no additional costs levied on them. A mailer makes the most sense as well as handling all drugs as controlled substances.

- A drop box with the DEA waiver for a reverse distributor is best. Providing mailers to rural areas would be too expensive.
- Law enforcement should not be involved. The DEA exemption for reverse distributors is necessary. Drop boxes would be most efficient.

The DEA exemption is necessary. With the exemption, drop boxes at pharmacies would be the best program. Set up pilot collection events to determine public interest and provide education.

Drop boxes at pharmacies similar to the BC system would be best – maybe add a mail back system.

The system needs to be simple. There should be mailers and drop boxes. Make this program as easy as 'Netflix'

Gillaspie asked for three volunteers to work with Burt and Penpraze to establish a "go" hierarchy. Hill, Boudouris, and Sharon Olson volunteered.

Thompson suggested that there needs to be a centralized warehouse to receive the returned pharmaceuticals. How will that be done? The group is putting too much emphasis on the potential of using a reverse distributor.

Lis Houchen asked how the program would be funded. That is an important question that has not been answered yet.

### **Draft Report**

Gillaspie asked if there were any suggestions regarding what needed to be added to the draft report. Suggestions included:

- Costs of not having a drug take back program
- Break down the funding options between generic and other prescription drugs
- Costs of having a centralized receiving warehouse
- Need more details on contribution of small groups
- Case studies of drug take back programs, such as the City of Vacaville

Gillaspie asked that comments on the report be e-mailed to her.

### **White House Drug Take Back recommendations**

Group members discussed the White House recommendations. There were questions as to why certain drugs were emphasized and others ignored. Why were some drugs supposed to be flushed? One item on the White House list stated that consumers should follow the prescription label that lists the drug should be disposed of by flushing; no one has seen such a label. Boudouris felt that the document built awareness, but did not answer any questions.

Overall, the group felt that the White House message was focused on drug abuse, and not environmental issues. For instance, no one, including the pharmacists, could recall ever seeing a prescription that indicated a drug should be flushed down the toilet. The White House Statement builds awareness of the problem without adequately offering a solution and does not appear to understand the emerging environmental issues.

The group discussed the issues associated with disposing of drugs at a landfill. Penpraze discussed how drugs that are sent to a landfill get into the water system because the drugs percolate through the landfill and into the leachate. The majority of landfill leachate in Oregon is disposed of at municipal wastewater treatment plants, and these plants are not designed to remove microcontaminants such as pharmaceuticals. Disposing of drugs in a landfill is just another pathway for the drugs to get to the treatment plant and therefore into Oregon rivers and streams. The details regarding how leachate gets to a wastewater treatment plant should be stated in the report.

Penpraze emphasized that source reduction is the best way to tackle the problem. outcome.

### **Costs of not having a Drug Take Back Program**

The group suggested that the report should incorporate the costs of not having a drug take back program. The group's suggestions included:

- Higher costs of wastewater treatment technology
- Higher costs of drinking water treatment technology
- Social cost of diversion of drugs
- Accidental poisonings
- Environmental costs – fish issues
- Loss of confidence in municipal water supplies.

PhRMA is coming to the next meeting. Gillaspie stated that the next meeting should be longer as funding issues and establishing priorities still have not been tackled. The May meeting will be from 9:30am to 3:00pm. Boudouris asked what happens after the June meeting. This will be discussed in the May meeting, as well as the June meeting.

### **Meeting follow up 'to do'**

#### *Contact Hospitals Without Harm*

Penpraze and Hill to determine the costs of wastewater treatment technology without an established drug take back program

Inventory day surgeries and Urgent Care Centers in Oregon – learn more about drug disposal practices

Learn more about the long term care pharmacies and their ability to take returned drugs from long term care facilities

Add information on a central warehouse owned by the Board of Pharmacy to the options

Small group – Penpraze, Burt, Boudouris, Olson, Hill

### **Draft Agendas for Next Meetings**

May 11, 2007 Meeting

Time extended from 9:30 am – 3:00 pm (30 minute break for lunch)

Presentation by Pharmaceutical Research and Manufacturers of America (PhRMA)

Product Stewardship preferences

Agreement on final program options

Volunteer group will develop 'strawman option'

Additional discussion on funding options

Review of second draft report

Focus on next steps - brainstorm

### **June 8, 2007 Meeting**

Final Recommendations

Program Option

Funding

Final report signing

Next Steps

Celebration

### **Attending the meeting was:**

- Leslie Wood-Pharmacy Research and Manufacturer's of America (PhRMA) (by phone)
- Rebecca Gold-Consumer Healthcare Products Association (CHPA) (by phone)
- Tony Burt-Oregon Board of Pharmacy
- Jim Thompson-Oregon Board of Pharmacy
- Rebecca David-Oregon State Police
- Michael Stupfel-Oregon State Police
- Monica Hubbard-Oregon State University
- Sejo Jackson- Northwest Product Stewardship Council / Snohomish County Solid Waste Management Division (by phone)
- Kevin Masterson-DEQ
- Tom Penpraze-City of Corvallis
- Abby Boudouris-DEQ
- Karen DeBaker-Clean Water Services (by phone)
- Jim Hill-City of Medford/ACWA
- Gerry Migaki-Oregon Society of Health System Pharmacists
- Brenda Bateman-Tualatin Valley Water District
- Sharon Olson-City of Eugene
- Teresa Huntsinger-Oregon Environmental Council
- Kristan Mitchell- Oregon Refuse & Recycling Association
- Janet Gillaspie-ACWA

*Notes taken by LD Michaelis*

*3/09/07*

10.2.5 MEETING 5: MAY 11, 2007

## Oregon Pharmaceutical Drug Take Back Stakeholder Meeting

11 May 07

Salem, Oregon

### MEETING SUMMARY

Attendance at end

#### INTRODUCTIONS

Janet Gillaspie facilitated the meeting. She asked if there were any questions about or changes to the agenda; none were voiced. The group introduced themselves.

#### Product Stewardship Program

Sego Jackson with Northwest Product Stewardship Council / Snohomish County presented a PowerPoint presentation "*Proposal to Include Product Stewardship Program and Financing as Option in Oregon Report*". A copy of the presentation is posted on the ACWA web site at [www.oraacwa.org](http://www.oraacwa.org). There is only one ongoing program for drug take back in the region, in British Columbia. It has been in operation since 1996. Drug manufacturers provide funding for the program; 123 manufacturers are billed for the operational costs. The costs are distributed using a tiered system based on annual sales or market share. The companies involved are 35% from generic manufacturers, 45% from name brands and 20% over-the-counter product manufacturers. Most of the companies involved in the take back program in British Columbia sell their products in Oregon and Washington.

Jackson stated that the pilot program he is involved with in Washington is moving towards a stewardship model.

Jim Hill asked about the viability of national legislation to set up a national drug take back program. Jackson stated that it would not happen. More entities need to apply pressure to the federal Drug Enforcement Administration (DEA) to get them to approve exemptions for reverse distributors or others to handle returned controlled drugs.

There was a discussion regarding the attempts to establish a national program for disposal of used electronic equipment. After approximately 4 years of trying, a national concept could not be agreed upon. States are now passing their own legislation for proper disposal of electronic equipment. California, Maine, and Minnesota have passed legislation; new legislation looks likely in Oregon and Texas.

Tony Burt reminded the group that the BC program costs are low in part because there is no differentiation between controlled and noncontrolled drugs. He asked if there was any information regarding illegal drug diversion in the BC program. Also, what were the drivers that made the manufacturers take a stewardship role in building the BC program. Jackson indicated that he was told there have been no drug take back buckets lost or diverted. He was unsure what motivated the manufacturers to fund the take back program; however, the threat of establishing legislation is often a good motivator.



Leslie Wood said that PhRMA has concerns with litigation and liability of pharmacies in the US regarding a drug take back program. David Stitzhal stated that the risks needed to be managed at a minimal cost.

Gillaspie asked how the Washington pilot program would be moving toward a stewardship model. Jackson stated that they are currently looking for corporate sponsors. There will be legislation presented in the Washington 2009 Legislature regarding a drug take back program, he added.

Jackson advocates an industry financed stewardship program that is totally constructed by and managed by the manufacturers. Drug manufacturers could gain a lot of positive publicity mileage by establishing this type of program, he said. Scott Klag said that in the BC program all drug manufacturers that sell in BC must participate in a stewardship program.

### PhRMA Presentation

Leslie Wood, Director of State Policy for PhRMA, presented PhRMA's position on a drug take back program in Oregon. A copy of her presentation is posted on the ACWA web site at [www.acwa.org](http://www.acwa.org). She stated that PhRMA has been rigorously studying the issue of pharmaceuticals in the water and how they affect patients, citizens and aquatic life. Their studies have determined that 99% of the substances found in the water are there due to human excretion. 1% of the pharmaceuticals in the water are due to direct application and 60 to 80 % of that amount comes from generic drugs. The effect of this small amount of drugs in the water would be the equivalent of one sugar cube dropped in a body of water equal to the water in four Olympic sized swimming pools. Patient use is the primary pathway of drugs in the environment. PhRMA follows the EPA in recommending that discarded drugs not be flushed, but mixed with water or kitty litter and deposited in the landfill.

PhRMA, in its studies, has used a human health screening analysis for 26 different types of pharmaceuticals. The studies did not include hormones in the evaluations. The results of the assessments determined that residues of drugs in the water present no appreciable risk to human health. Wood named five different studies that cited that environmental exposure presents little human health risk.

PhRMA stated that their preferred Drug Take Back option would be the method where all pharmaceuticals were returned to local law enforcement agencies. Law enforcement would provide the manpower and a hazardous waste vendor would pick up the discarded drugs. They have concerns with using identifiable mailing envelopes and the possibility of theft of drugs or fraud. The US Postal service does not allow for the mailing of drugs out of the chain of custody.

Wood said that a take back program would not be an effective use of resources if protecting the environment is the goal. Historically, there is only a 20% participation rate in other types of take back programs.

Burt asked why the manufacturers would be supporting the British Columbia model if they felt the pollution from pharmaceuticals was insignificant. Wood stated that she did not have an answer. Stitzhal said that a drug manufacturer's representative from British Columbia had told him that the responsibility was spread evenly across the industry, due to concerns with drug diversion, abuse, and pollution issues. The BC program started voluntarily, but is now backed by legislation.

Wood emphasized that consumer education is important in disposing of drugs effectively and that consumers should be informed of the EPA-approved methods of disposal. Klag asked Wood if PhRMA knew what their consumers wanted. She advised that she did not know. PhRMA's position is that drug abuse is a community problem, not a manufacturer's responsibility. Take back programs should be funded at the community level, she said.

Stitzhal reminded the group that the makers of OxyContin have to pay a fine due to abuse of their product. Wood stated that there are bad players that have to abide by the rules and re-emphasized that EPA has rules for proper drug disposal. Group members offered that garbage disposal technology is changing so drug disposal to a landfill may not be prudent in the future.

There was discussion regarding other industries that are involved in recycling or take back programs. The PhRMA presentation advocated using a system similar to battery returns, and battery recycling programs are funded by the manufacturers. Klag said that Metro is looking at paint manufacturers to fund a paint take back program nationally.

Gillaspie said that the group had determined that using law enforcement would not be a good drug take back option. She asked how Oregon could partner with PhRMA to find an agreeable solution. Wood stated that the generic and consumer products industries need to be represented in this discussion. There is also the ongoing concern about DEA regulations on controlled substances. There are also concerns with abuse in a mail back program if DEA waivers can be obtained.

Kristan Mitchell would like PhRMA to provide information on their studies that show landfill leachate is not a factor in pollution. She agreed that education of the consumer is paramount.

Wood stated that PhRMA's members are very focused on providing prescriptions to the uninsured. PhRMA has toxicologists studying the issue of drugs in the water, but the science shows that there is little risk to human health. They are using studies to determine if there is a problem. There is a task force established by PhRMA and staffed by the manufacturers that evaluates the toxicology reports. Burt asked how the issues are funded. Wood stated that she did not know.

Burt suggested that perhaps drugs in the environment are a burgeoning problem that we could head off; industry should react proactively.

PhRMA is trying to determine how many drugs are being stock piled in homes across the US. Wood will provide info on their research on this issue. PhRMA's position is the stockpiling of drugs is a community issue.

Hill asked if there was a risk to aquatic life would PhRMA be involved in finding a solution. Wood stated that research is needed to confirm there is a problem. Jackson asked how long PhRMA had been involved in researching the issue of drugs in the water; Wood did not know.

Gillaspie asked if a product stewardship option should be added to the draft report; no opposition was voiced. Also, what do studies show about drugs in leachate? Gillaspie suggested spending part of the task force's funds to have someone review research and analyze data. She will hire a grad student, with Hill, Mitchell, and Brenda Bateman's input, to review data on landfill leachate. The group agreed.

Gillaspie proposed writing a letter to PhRMA, the generic manufacturers' group and the consumer products group asking for their recommendations for an Oregon drug take back program. Jackson asked if the letter should be more of an invitation to the groups to help set

up a pilot program in Oregon. Teresa Huntsinger also suggested finding partners – other states – to help promote the cause and share ideas and/or responsibilities.

Burt asked Wood to e-mail responses to the questions asked today:

1. PhRMA data on percentages of drugs in water excreted vs. flushed.
2. Social science data/research
3. What program would work best for the manufacturers
4. PhRMA data on leachate

### Straw Proposal

Gillaspie revisited the Drug Take Back Program group's charter and refreshed the groups' memory about the goals of the group. The Stakeholder Group scope of work includes... "4) *Develop stakeholder group consensus on the best drug take back program for Oregon that is effective, includes both controlled and routine drugs, and is as economical as possible*". She reminded the group that they set their decision making process as "modified consensus minus one".

She highlighted some of the key issues for the group to consider in reviewing the straw proposal:

1. Is legislation necessary?
2. Does the group agree that it should be staged, with a mail back option first and collection in the second phase?
3. Is the correct state agency to host this program the Oregon Department of Human Services – Oregon Public Health Division?
4. Does the group agree with the funding mechanism?
5. Are the interim actions (hospital survey, development of Best Management Practices - BMPs) reasonable?

Hill reviewed the straw proposal that was distributed to the group prior to the meeting. The key part is getting the DEA exemption for the reverse distributor. The first phase of the program would be a mail back program; the second phase a collection box system at the pharmacies. Funding would be a fee on the drug manufacturers and suppliers. Hospitals and larger long term care facilities would be required to use BMPs.

Huntsinger asked why the mail back option first, then collection boxes. Hill stated that the mail back system is easier to implement, cheaper and more available to rural areas. Bateman asked where the mailers would be sent. The mailers would go directly to a reverse distributor or hazardous waste incinerator, if the DEA exemption is in place. Liquid drugs are not likely to be returned in a mail back program.

Jackson asked if wastewater treatment plant effluent could be treated to remove pharmaceuticals. Hill stated that wastewater treatment plants would be required to use a microfiltration followed by a reverse osmosis system. This type of system requires a very high use of energy and generates a salty brine that is difficult to dispose of.

Jackson stated that the reverse distributor in the Northern California case has received a verbal okay from the DEA to receive mailed back pharmaceuticals. The physical letter is expected shortly.

Establishing a fee on drug manufacturers that is collected by the Board of Pharmacy will require legislation. It is likely that legislation will take years to pass; additional taxes will most likely not be approved, added Burr. One suggestion was that manufacturers and suppliers wishing to sell in Oregon would have to have a program in place to deal with discarded drugs. Klag said that the electronics manufacturers recycling bill took three attempts before it passed.

Opinions on the straw proposal from the group included:

- Product stewardship model can work. It should focus on any company that ships drugs into Oregon and require an environmentally safe, convenient disposal system. Some performance standards for the program will be needed. To ensure the program is put in place, a legislative backdrop that puts a state-operated program in place if the manufacturers and suppliers do not step up is needed. (Many members of the group agreed with this approach as being superior to that included in the straw proposal)
- Political pressure is needed to ensure the product stewardship model moves forward.
- Find a champion in the industry that is interested in building a product stewardship program.
- Discuss this issue with legislators and learn their ideas.
- The "call to action" needs to be improved; there needs to be a more compelling case made in the final report.
- There needs to be a "Plan B" if there is no DEA exemption forthcoming.
- Company shareholder resolutions are an effective tool to get manufacturer's to address issues of concern.

The group agreed to recommend that the drug manufacturers and suppliers operating in Oregon be asked to institute a product stewardship program to handle the unwanted or unused drugs in Oregon.

Ann Jackson of the Oregon Hospice Association said that the industry has concerns on the drug take back issue. She suggested applying for grants to get the program started. The national hospice groups are not involved in the issue; state organizations are more concerned. 60% of all hospice care is in individual homes. It was suggested that hospice groups could place political pressure on pharmaceutical manufacturers to participate in a drug take back program.

The group discussed what the recommendation should be if there is no DEA exemption for the programs currently moving forward in Washington, California, and Maine. The group concluded that a program that relied on law enforcement involvement, and that followed the current EPA recommendations to put unwanted drugs in the garbage with an education and outreach campaign would be the only other alternative.

### Report Review

The group discussed the current draft report. Items to be revised or added in the report included:

- Add product stewardship option (Sego Jackson will assist in the writing)
- Hire a qualified individual to complete a literature review regarding the presence or absence of pharmaceuticals in landfill leachate
  - Gillaspie will draft a scope of work and work with Hill, Mitchell, and Bateman to review

- A section on hospice care should be added. Ann Jackson can assist with this.
- Gillaspie should sent a letter to PhRMA, the generic manufacturers, and the consumer products group inviting them to suggest what a model product stewardship system might be and reflecting that many of their members currently participate in the BC system
- Improve the “call to action” aspects of the report – this might be accomplished in the Executive Summary or other tools to “tell the story”

### Next Steps

The strategy of promoting a product stewardship model for the Oregon Drug Take Back program was agreed to by the group. Tony Burt will take the lead in revising the straw proposal to reflect the will of the group.

The final report will be distributed at the June 8<sup>th</sup> meeting. All stakeholders will have between June 8 and July 13 to vet the report and its recommendations with their group, driving towards an agreement from their group to sign the final report. After the report is finalized, other groups will be asked to endorse the recommendations of the report.

Other items that need to be accomplished:

- Develop a lobby strategy
- Inform and involve the Oregon congressional delegation
- Get John Horton, Associate Deputy Director for State and Local Affairs White House Office of National Drug Control Policy involved
- DEQ will take the lead on the BMP survey for hospitals
- BMPs need to be developed for long term care facilities

### Next meeting

Friday, June 8, 2007

9:30am to Noon

Willow Lake Treatment Plant meeting room

The group set one additional final meeting for July 13, 2007 from 9:30 am – noon at the City of Salem Treatment Plant.

### Attending the meeting was:

- Leslie Wood-PhRMA
- Abby Boudouris – DEQ (by phone)
- Dave Leland – Oregon DHS, Drinking Water Program
- Tony Burt-Oregon Board of Pharmacy
- Rebecca David-Oregon State Police
- Scott Klag - METRO
- Sego Jackson- Northwest Product Stewardship Council / Snohomish County Solid Waste Management Division
- Karen DeBaker-Clean Water Services (by phone)

- Jim Hill-City of Medford/ACWA
- Brenda Bateman-Tualatin Valley Water District
- Teresa Huntsinger-Oregon Environmental Council (OEC)
- Kristan Mitchell- Oregon Refuse & Recycling Association
- David Stitzhal - Northwest Product Stewardship Council
- Janet Gillaspie-ACWA
- Laura Michaelis – ACWA

*Notes taken by LD Michaelis  
05/11/07*

10.2.6 MEETING 6: JUNE 15, 2007

**Oregon Pharmaceutical Drug Take Back Stakeholder Meeting**

**15 June 07**

**Salem, Oregon**

**MEETING SUMMARY**

Attendance at end

**INTRODUCTIONS**

Tom Penpraze and Tony Burttt co-chaired the meeting. Janet Gillaspie facilitated the meeting. She asked if there were any questions about or changes to the agenda; none were voiced. The group introduced themselves.

**Drug Take Back Program Proposal**

Gillaspie asked for comments on the proposed stakeholder recommendations from the industry representatives – Pharmaceutical Researcher and Manufacturers of America (PhRMA) and the Consumer Healthcare Products Association (CHPA). The Generic Pharmaceutical Association (GPhA) did not respond to the Group's request for feedback.

Leslie Wood of PhRMA stated that her organization does not agree with the recommendation that Oregon institute a drug take back program using the British Columbia program as a model; they do not believe that the costs in the Oregon program would be the same. Also, it is unlikely Drug Enforcement Administration (DEA) would allow such a program to be operated due to concerns with controlled drugs.

Holly Sears of the Oregon Refuse & Recycling Association stated that she felt there was not enough information for her organization to endorse the recommendations of the group. She stated that one-half of Oregon's refuse goes to the Arlington landfill where the leachate is handled by evaporation and not discharged to Oregon waterways. Drugs in the water are most likely there through excretion. Tom Penpraze of the City of Corvallis reminded the group that leachate at other refuse sites, especially in wet Western Oregon, is piped or trucked to wastewater treatment plants.

Wood was asked if the DEA changed its policy for handling of controlled drugs, would PhRMA change their position. She stated that PhRMA's position would not change; the science does not support it. The group questioned PhRMA about a variety of issues incorporated in a landfill leachate report prepared by PhRMA and forwarded to the Drug Take Back Program group.

Gillaspie asked when PhRMA's comments regarding the recommendation proposal would be ready. Wood responded that some definitions in the report are unclear and need to be better defined. There are also some facts that are incorrect and need to be corrected. The report needs to reflect the dissension of some of the participants involved and the problem statement should be more clear and concise. Gillaspie stressed that she was interested in PhRMA's comments to ensure that the report was as accurate as possible.

Paul Larsen of the Consumer Healthcare Products Association stated that his organization represents many companies and they are committed to being involved with the Oregon

Drug Take Back Program group. However, they are just now getting input from their member companies. He requested an extension of time past the July 13<sup>th</sup> date for CHPA to respond. They would be unable to endorse the recommended proposal without more input from their members.

Larsen and Wood both were unable to comment as to why the Generic Pharmaceutical Association has not participated in this process. The group agreed that Gillaspie should make another phone call and send another letter to GPhA requesting their involvement.

Penpraze asked for additional comments on the *"Proposal for Drug Take Back Program"* report. The report recommends and outlines a manufacturers' stewardship model with Best Management Practices (BMPs) crafted for hospitals and long term care facilities. There were concerns that there will be no forward progress of this program for 2 years if the group waits for the 2009 Oregon Legislature to be in session. Members questioned how to motivate the private sector. Retailers have been interested in this issue because their customers have asked for ways to dispose of unwanted drugs.

The group discussed the parallels between product stewardship in the drug industry and the electronics industry. The electronics industry is now facing different versions of a product stewardship program in many different states. Faced with that, the electronics industry is now taking the lead in developing programs to recycled unwanted electronic products.

Tony Burt, Oregon Pharmacy Board, said that this proposal makes some assumptions, but there is insufficient science to back those assumptions. There are concerns with the amount of drugs in the water from excretion versus disposal by flushing. He also questioned if landfill disposal was perhaps an acceptable practice for unwanted drugs. Perhaps more data needs to be collected to verify that drugs are entering the waterways from flushing and landfill leachate.

Penpraze stated that it is possible that wastewater treatment plants would stop accepting leachate from refuse sites if there are concerns about it containing drugs.

Scott Klag, METRO, suggested that the issues of prescription drug addiction and accidental poisonings should be emphasized in the report. Gillaspie reminded the group that this program will not solve the water quality concerns with pharmaceuticals; it is just a part of the solution.

Jim Thompson with the Oregon State Pharmacy Association asked how consumers would be motivated to participate and suggested that a significant education effort would be required. Would consumers truly go out of their way to dispose of drugs in an alternative way? It is possible that the program will be expensive to establish and then consumers will not participate. People have been taught for years to flush their unwanted drugs, now they will have to be "un-taught".

Members stated that consumers can be "un-taught". Cities have been successful in changing habits about putting oil in storm drains, for example. Kevin Masterson, DEQ, said that switching drug disposal from flushing to landfill could switch the contaminants from the waterways to landfill leachate. Klag emphasized that in order for the program to be successful, it must be convenient to use.

It was suggested that the report needs a stronger statement that education will need to be statewide and will need to be collaborative. Wood said that more information on the BC take back program model should be included in the recommendations portion of the report. Gillaspie agreed and said that the report would be amended to include more information.



In response to a question, the group discussed how the take back program in King County Washington began as a cautionary action, motivated from the hazardous waste angle. The group discussed whether expected social outcomes should be listed in the report. The group agreed that they should be listed.

Sears cautioned that there could be a lot of money spent on a program that may not achieve any change in water quality and suggested that education would be a better way to spend funds. For her group, the science needs to be there before a large amount of money is spent to establish a take back program. Thompson suggested setting up and polling consumer focus groups to determine how people are disposing of their unwanted drugs and how they feel about drug disposal. Gillaspie reminded all that the funds for the group are limited and taking on such a poll is outside the scope of this project.

Burt said that more scientific information might be needed in order to get more stakeholders to endorse the proposal. Gillaspie stated she felt that the group was losing momentum and needed to finalize a report. Brenda Bateman, Tualatin Valley Water District, echoed this opinion by stating that the report should reflect the concerns held in the beginning, emphasize that this is just a beginning, but that also, a lot has been accomplished.

Brett Hulstrom, City of Portland BES, said that hazardous waste issues are historically a parallel to this issue. Having a place to properly dispose of unwanted drugs is the right thing to do. We may not know, with today's technology, that there are problems in our soil and water.

## Changes to the report

Gillaspie will edit the report to add/amend:

1. A stronger problem statement
2. More information on water quality issues
3. A paragraph on expected social outcomes.

The revised recommendations will be distributed on Monday, 6/18/07 and comments will be due back by Friday, 6/22/07.

## Literature Review

Dr. Jeff Nason of OSU has proposed a cost of \$2,700 for the leachate literature review; Gillaspie had budgeted \$1,500. She questioned what the will of the group was. Is the research still valuable? There was discussion regarding the structure of the report. The group agreed that the information is still valuable and relevant and agreed with the proposal to spend \$1,500 for a report to be delivered in the next 30 days. Sears will ask her national counterpart organization if they have any leachate research that is applicable.

The group wanted the report to be sorted by active and inactive landfill sites, and those sites with leachate collection and without leachate collection.

## Final Report

The group discussed the final report. Gillaspie welcomed editorial comments to be submitted to her.

After the discussion, the Group asked that these changes be made:

- Clarify anticipated water quality impacts
- Include the OSU landfill study
- Include Final Recommendation and Executive Summary

### Executive Summary

Gillaspie distributed a draft executive summary prepared by a professional writer. The group asked that these changes be made:

- Study references should be in the text; the source from the full report should be referenced
- Use "pharming" instead of "phishing"
- Establish a compelling reason why the 3% water quality issues must be addressed

### Next Steps

Gillaspie distributed a draft PowerPoint presentation and asked for comments. She has prepared the presentation to assist group members in making presentations on the draft recommendations to their organization or others.

Gillaspie also asked for additional groups that might be likely to endorse the group's recommendations. The suggestions included:

- Columbia and Willamette Riverkeepers
- Farm Bureau
- Water 4 Life
- Oregon Water Resources Congress
- Oregon Trout
- Save Our Wild Salmon
- Watershed Councils
- Oregon Department of Fish and Wildlife (ODFW)
- Drug Enforcement Administration (Bill Etter)
- Oregon Poison Center
- Drug Prevention Coordinators
- US Fish & Wildlife
- NOAA Fisheries
- PTAs in Oregon
- AARP

The Executive Summary is what supporters will be endorsing. Comments on the final report are needed by June 29<sup>th</sup>.

### Next meeting

Friday, July 13, 2007

9:30am to Noon

Willow Lake Treatment Plant meeting room

**Attending the meeting was:**

- Leslie Wood-PhRMA (by phone)
- Paul Larsen-CHPA (by phone)
- Dave Leland – Oregon DHS, Drinking Water Program
- Tony Burt-Oregon Board of Pharmacy
- Rebecca David-Oregon State Police
- Scott Klag-METRO (by phone)
- Ann Tweedt-Bristol Meyers Squibb (by phone)
- Jim Hill-City of Medford/ACWA
- Brenda Bateman-Tualatin Valley Water District
- Tom Penpraze-City of Corvallis
- Holly Sears- Oregon Refuse & Recycling Association
- Kevin Masterson-DEQ
- Jim Thompson-Oregon State Pharmacy Association
- Brett Hulstrom-City of Portland Bureau of Environmental Services (BES)
- Jennifer Seely-Kaiser Permanente
- Janet Gillaspie-Oregon Association of Clean Water Agencies (ACWA)
- Laura Michaelis – Oregon Association of Clean Water Agencies (ACWA)

*Notes taken by LD Michaelis*

*06/15/07*

10.2.7 MEETING 7: JULY 13, 2007

## Oregon Drug Take Back Stakeholder Meeting

13 July 07

Salem, Oregon

### MEETING SUMMARY

Attendance at end

#### INTRODUCTIONS

Co-chair Tom Penpraze chaired the meeting; Co-Chair Tony Burt participated by phone. Janet Gillaspie facilitated the meeting. She asked if there were any questions about or changes to the agenda; none were voiced. The group introduced themselves.

#### Trade Associations Comments

Gillaspie asked for input from Paul Larsen, Consumer Healthcare Products Association (CHPA), regarding the Stakeholders' recommendation. He stated that the organization was not in a position to endorse the program, as they are unsure of all the details. They still have many questions and their endorsement would depend on the answers to the questions. Jim Hill, City of Medford/ACWA, asked Larsen if CHPA had been asked to endorse programs from other states – he said that he was unaware of any requests. Gillaspie requested Larsen find out if there are other states that have presented them with a similar approach. Paul Larsen will be replacing Rebecca Gold as the contact for CHPA.

Clement Cypra of Pharmaceutical Research and Manufacturer's of America (PhRMA) was asked what liability costs Leslie Wood of PhRMA was referring to when she said that the Oregon Drug Take Back program had no hard and fast costs available, and that liability costs were not included in the program cost estimates. He stated that she was referring to possible issues with fraud and theft due to substances being stolen at a point in the supply chain. PhRMA is concerned with drugs being diverted. The British Columbia program is not a valid comparison as Canada does not have product liability laws and there is no program like the federal Drug Enforcement Administration (DEA), he added. PhRMA advocates disposal of unwanted drugs in landfills as outlined by the EPA.

Gillaspie asked Cypra to provide a statement outlining PhRMA's position with emphasis on their liability concerns. He stated that the Oregon Drug Take Back program as outlined cannot be implemented under the current laws and regulations. Cypra stated that for the record PhRMA is opposed to the Oregon Drug Take Back program as outlined. The costs are prohibitive, especially if other states follow Oregon's lead. This is a personal conduct issue, not an issue of environmental concern. PhRMA will not endorse the program in any form. Gillaspie thanked him for his input.

Gillaspie asked the group for their comments on the final proposal. Brenda Bateman reminded the participants that this proposal will not address all the drug disposal issues. Tom Penpraze suggested making the program elements clearer. Assumptions and details should be transparent; nothing should be hidden or overstated, he said.

The group reviewed the proposal language. The recommendations included clarifying the water quality impacts of the program, and including a reference to the landfill study.

Meeting participants said that they were waiting for the final proposal to be completed before presenting it to their organizations. Hill stated the ACWA had already endorsed the proposal.

**Technical Literature Review**

Dr. Nason of OSU is reviewing existing technical information and is expected to present his report mid-August. His report will be an attachment to the final Drug Take Back program report.

**Executive Summary**

Gillaspie stated that the group needed to focus on the changes needed to the summary, as there is money in the budget for only one more draft from the technical writer. The consensus was there was redundancy in the summary and that there was no need for detailed citations in the summary as they would be in the final report. The term “avoidable” should be used instead of “accidental” when referring to poisonings as it implies that they are preventable.

There was discussion regarding clarifying the costs vs. benefits clearly in the summary. It was decided instead of emphasizing the costs, the summary should emphasize the societal gains. Examples of controlled drugs should be listed for comprehension.

SB 737 details will be added to the report and referenced in the summary.

The water quality and societal benefits sections will be rewritten by Gillaspie and sent to members for comments. The summary and report should reflect that PhRMA opposes the Drug Take Back program.

**Next Steps**

Members discussed who would approach which organizations for their endorsement of the Oregon Drug Take Back program proposal. The following contacts were agreed to:

**Named Members that Did Not Participate & Others**

ORGANIZATION	KEY CONTACT	ASSIGNED TO?
Oregon Sheriffs’ Assoc.	Dave Burright	Becky David – OSP
OR Association of Chiefs of Police	Kevin Campbell	Becky David – OSP
Covanta Marion	Kelly Champion	Brenda Bateman
Clackamas CO. Medical Examiner	Jeff McLennan	Jim Thompson
Oregon Water Utilities Council	Brenda Bateman	Brenda Bateman

## Other Stakeholders

## Oregon Congressional Delegation

	STAFF	ASSIGNED TO?
Wyden		Jim Hill
Smith		
Blumenauer	Hillary Barbour	Brenda Bateman
Wu	Ann Richardson	Brenda Bateman
DeFazio		Tom Penpraze
Walden		Jim Hill
Hooley		Teresa Huntsinger

## Federal/State/Local Agencies

## Federal

Agency	Key Staff	Assigned to?
Federal		
DEA	Bill Etter	Janet Gillaspie
EPA – OR Operations	Janet Gillaspie	ACWA
NOAA Fisheries		ACWA
US Fish & Wildlife		Jim Hill

## State

Agency	Key Staff	Assigned to?
DEQ/EOC		Abby Boudouris/Kevin Masterson
Board of Pharmacy		Tony Burt
Public Health Division	Public Health Advisory Board	Dave Leland
OSP		Becky David
Oregon Dept. of Fish & Wildlife		Becky David

## Local

ACWA Conference	Scheduled 7/27/07	Tom Penpraze
LOC Water/Wastewater Committee		Tom Penpraze
Oregon Water Utilities Council		Brenda Bateman
Council of Local Health Officials		Dave Leland
Oregon Water Resources Congress		Tom Penpraze
Watershed Councils / John Moriarty		Request presentation for fall OWEB conference, Teresa Huntsinger
OWEB		Jim Hill

**Environmental Public Interest Groups**

Columbia Riverkeeper		Teresa Huntsinger
Willamette Riverkeeper		Teresa Huntsinger
Save our Wild Salmon		Teresa Huntsinger
Oregon Trout		Teresa Huntsinger

**Other Groups**

PTA – Statewide Group		
Oregon AARP		Janet Gillaspie
Oregon Farm Bureau		Teresa Huntsinger
The Collaborative on Health & Env't		Teresa Huntsinger
Physicians for Social Responsibility		Teresa Huntsinger
Oregon Medical Association		Gerry Migaki
NW Prod Stewardship Council		Abby Boudouris, Sego Jackson, and Dave Stitzhal
OSPIRG		

The group also suggested that the tribal nations in Oregon be approached for their support. Also, the staff at Multnomah County and the City of Portland working on toxic reduction efforts should also be approached for their endorsements.

Gillaspie suggested that the way to approach the potential endorsees would be to inform them of the program first by using the summary, report, and recommendations. If possible, use the PowerPoint slide presentation, modified for the specific audience. Ask the group to endorse the concept by writing an endorsement letter. Emphasize that no financial resources are required. The endorsement letter should be addressed to the Oregon Drug Take Back stakeholder group c/o ACWA. Gillaspie will craft a letter template.

Boudouris asked what happens after the endorsements. Gillaspie stated that that is unknown, but will be addressed at the next meeting in October. A slide should be inserted into the PowerPoint presentation outlining what the next steps will be.

**Process Review**

Gillaspie reviewed the work of the Stakeholder group over the year and solicited comments from the group about how the process had worked. The comments included:

- The industry representatives should have been identified sooner. The process felt rushed.
- Things ran smoothly considering the group's change in focus.
- Having meetings during the Oregon Legislative Session hindered some people from attending.
- It was a good idea to have a graduate student do the research. Monica Hubbard helped a great deal.
- There was a good cross section of agencies involved.
- The collaborative nature of the process was a plus.

**Next meeting**

Friday, October 19, 2007

9:30am to Noon

Willow Lake Treatment Plant meeting room

Salem, Oregon

**Attending the meeting was:**

- Clement Cypra – Pharmaceutical Research and Manufacturers of America (PhRMA) (by phone)
- Jim Thompson – Oregon State Pharmacy Association
- Tony Burt – Oregon Board of Pharmacy (by phone)
- Brett Hulstrom – City of Portland Bureau of Environmental Services
- Abby Boudoirs – Department of Environmental Quality (DEQ) (by phone)
- Dave Leland – Oregon Department of Human Services (DHS), Drinking Water Program
- Jenny Seeley – Kaiser (by phone)
- Rebecca David – Oregon State Police
- Sego Jackson – Northwest Product Stewardship Council / Snohomish County Solid Waste Management Division (by phone)
- Paul Larsen – Consumer Healthcare Products Association (CHPA) (by phone)
- Jim Hill – City of Medford/ACWA
- Brenda Bateman – Tualatin Valley Water District
- Tom Penpraze – City of Corvallis
- Gerry Migaki – Providence Health Systems
- Janet Gillaspie – ACWA
- Laura Michaelis – ACWA

*Notes taken by LD Michaelis*

*07/13/07*



### 10.3 Appendix B: Literature Review: Occurrence and Fate of Pharmaceutical Compounds in Landfill Leachate

## Literature Review: Occurrence and Fate of Pharmaceutical Compounds in Landfill Leachate

Prepared for

**Oregon Association of Clean Water Agencies**

by

**Jeffrey A. Nason, Ph.D.**

**August, 2007**

#### ABSTRACT

In light of the recent guidance issued by the White House Office of National Drug Control Policy, directing consumers to dispose of unwanted prescription drugs in household trash, a review of the available research focused on the occurrence and fate of pharmaceutical compounds in landfill leachates and groundwater contaminated by unlined landfills is presented. Research, primarily outside the U.S., has detected and quantified pharmaceutical compounds in landfill leachate and in groundwater down gradient of leaking and unlined landfills at concentrations on the order of ng/L to mg/L. The highest concentrations (> 100 µg/L) have been found in instances where pharmaceutical production waste was disposed of at the site; concentrations on the order of ng/L to µg/L were more typical of municipal solid waste landfills. According to theoretical calculations and a limited amount of field data, the total load of all pharmaceutical compounds to surface water via landfill leachate is predicted to be small (< 1%). However, the likelihood that drugs disposed of in landfills will ultimately end up in surface water is compound specific.

#### INTRODUCTION

In February of 2007, the White House Office of National Drug Control Policy released guidance on the proper disposal of unused or unwanted prescription drugs (ONDCCP, 2007). The guidance directs consumers to dispose of the unused drugs in household trash or to take advantage of drug take-back programs, rather than flushing the drugs down the toilet. Although a great deal of research has focused on the fate of pharmaceutical compounds in municipal wastewater (Jones *et al.*, 2005), relatively little is known about the occurrence, transformation and fate of pharmaceutical compounds in landfills. Bellante *et al.* (2003) argue that the small number of studies is a result of the broad variety of pharmaceutical compounds and the relatively small amounts of pharmaceutical compounds present in municipal solid waste. This document is a review of available technical literature regarding the absence or presence of pharmaceuticals in landfill leachate and groundwater below unlined landfills. Previous literature reviews focused on pharmaceuticals in aquatic systems (Heberer, 2002), household drug disposal (Bellante *et al.*, 2003; Bound and Voulvoulis, 2005), household hazardous waste (Slack *et al.*, 2005) and pharmaceuticals in landfill leachate (Metzger, 2004), along with the U.S. EPA's new website focused on pharmaceuticals and personal care products (USEPA, 2007), were extremely useful in identifying the pertinent literature and placing it in the context with the larger problem of pharmaceuticals and personal care products in the environment.

## Occurrence of Pharmaceuticals in Landfill Leachate

To date, a limited number of studies have investigated the presence or absence of pharmaceutical compounds in landfill leachate and/or groundwater contaminated by landfill leachate. The work that has been done has focused on a wide variety of prescription and non-prescription drugs and their environmental metabolites. Studies have examined both active and closed landfills and those with and without leachate collection systems. As noted by Metzger (2004), comparisons of concentrations between landfills are impossible due to the varied nature of waste disposed of in municipal solid waste landfills, as well as leachate dilution by rainwater. What the available research does convey, however, is the range of concentrations that have been measured. What follows is a review of the pertinent literature in this area. A data table summarizing the specifics of each study (drugs, concentrations, landfill characteristics, etc.) is contained in Appendix A.

Eckel *et al.* (1993) re-analyzed gas chromatography/mass spectrometry data from a sample collected in 1984 as part of an earlier study. The sample was collected 300 m down gradient from an unlined Florida landfill that was active in 1968 and 1969, receiving waste from two large naval bases. It is believed that waste from a large hospital located on one of the bases contributed to the waste disposed of at the site. As a result of the analysis, the sedatives pentobarbital and meprobamate and the anticonvulsant phenuximide were identified (but not quantified) in the groundwater. The investigators drilled a new well adjacent to the 1984 sampling location and analyzed the groundwater for pentobarbital. The compound was found at a concentration of 1  $\mu\text{g/L}$ .

Holm *et al.* (1995) sampled groundwater at depths from 5.5 to 10 m down gradient (0-260 m) of an unlined Danish landfill that accepted approximately 85,000 tons of waste from pharmaceutical manufacturing over the course of 13 years prior to the closure of the landfill in 1977. Six sulfonamides (sulfanilic acid, sulfanilamide, sulfaguanidine, sulfadiazine, sulfadimidine, sulfamethizol) and three byproducts of their production (aniline, *o*-chloroaniline, *p*-chloroaniline), one barbiturate (5,5-diallylbarbituric acid), an analgesic (propyphenazone), an intermediate in the production of meprobamate (2-methyl-2-*n*-propyl-1,3-propanediol), and an anti-foaming agent used in pharmaceutical production (tri-(2-methylpropyl)-phosphate) were found in the groundwater; concentrations ranged from less than 1  $\mu\text{g/L}$  to 18 mg/L across the compounds, sampling locations and depths.

Ahel *et al.* (1998) sampled solid waste and underlying soil (1 m) from three different locations within an active unlined landfill in Croatia. Solids were analyzed for several different chemicals. The analgesic propyphenazone was found in the soil at concentrations up to 0.1 mg/kg in the soil and 10 mg/kg in the solid waste itself. Isopropylidene carbohydrate derivatives from the manufacture of Vitamin C were also found at concentrations in excess of 10 mg/kg in the solid waste and up to 1 mg/kg in the underlying soil. The authors link these concentrations to disposal of pharmaceutical production waste, rather than from disposal of municipal refuse.

In a subsequent study at the same site (Ahel and Jelacic, 2001) the authors also examined the concentrations of pharmaceutical compounds in the landfill leachate and groundwater underlying the landfill. Three phenazone analgesics (propyphenazone, aminopyrine, and antipyrine) were detected in the solid waste, leachate, underlying soil and groundwater. Propyphenazone was found at concentrations up to approximately 50  $\mu\text{g/L}$  in the leachate and in the groundwater, suggesting that the compound is highly mobile and persistent in the environment. Aminopyrine was also present in the leachate (up to 16  $\mu\text{g/L}$ ) and the groundwater (up to 36  $\mu\text{g/L}$ ). However, concentrations declined rapidly from "hot spots" of the compound within the landfill. Antipyrine was found in the leachate at trace levels (< 50 ng/L).

Paxeus (2000) quantified approximately 200 organic compounds from three landfills in Sweden. Landfill A, active since the mid 1970's, received mixed waste (incineration, wet screenings from a wastewater treatment plant, industrial) that did not appear to include household waste. Landfill B, active since 1964, received mixed waste (sewage sludge, industrial, construction, household). Landfill C, closed at the time of the study (operated 1938-1978) received all kinds of waste (household, industrial, chemical, construction, sludges, cadavers, etc.). While not explicitly stated, it appears that these three landfills were equipped with leachate collection systems as yearly leachate production rates were cited. Three antiphlogistics were found in leachate from these landfills. Ibuprofen was found at a concentration of 8 µg/L in leachate collected from landfill A, phenazone was found at concentration of 37 µg/L in leachate collected from landfill C, and isopropylphenazone was found at concentrations of 1.1 µg/L and 49 µg/L from leachate collected at landfill A and landfill C, respectively.

Schwarzbauer *et al.* (2002) took advantage of a breach in the liner of a landfill in Germany, sampling seepage (leachate) and leakage water (collected in a mining system below the landfill, but above the water table) for a wide variety of organic compounds. Two analgesics (ibuprofen and propyphenazone) and the environmental metabolite of a blood lipid regulator (clofibrac acid) were detected in both of the leachate samples and the leakage sample. The concentration of propyphenazone ranged from 110-140 µg/L in the leachate and in the leakage water, again indicating the compound's persistence in the environment. Although detected in the leachate and the leakage water, ibuprofen and clofibrac acid concentrations were not quantified.

In a follow-up study at the same site, Heim *et al.* (2004) looked more in depth at the persistence of some organic chemicals in the groundwater surrounding the leaking landfill. Ibuprofen, propyphenazone and clofibrac acid were detected in the groundwater (up to 500 m from the edge of the landfill) and in the leakage water collected from the exit of the mine shaft running below the landfill (at a distance of approximately 2 km from the landfill). Propyphenazone was present at concentrations of up to 1.4 µg/L in the groundwater adjacent to the landfill and up to 100 ng/L in the leakage water. Clofibrac acid was found at concentrations up to 1.1 µg/L in the groundwater and up to 55 ng/L in the leakage water. Concentrations of ibuprofen in the groundwater were not reported, but the compound was present in all leakage water samples at trace levels (< 5 ng/L). Concentrations in the groundwater and leakage water were 100-1000 times less than the concentrations measured in the leachate (Schwarzbauer *et al.*, 2002), but their presence indicates that the compounds are mobile and persistent in the environment.

Barnes *et al.* (2004) tested for 76 organic wastewater contaminants in groundwater wells down gradient of a closed landfill in Norman, Oklahoma. The unlined landfill was operated from 1920-1985, at which point it was closed, capped with clay and vegetated. During operation, the landfill received residential and commercial waste, along with some hazardous waste. Wells varied from 3 ft to 584 ft away from the landfill. Of the 76 compounds that were analyzed, 21 were antibiotics or metabolites of antibiotics, and 18 were human prescription or non-prescription drugs or metabolites. One antibiotic (lincomycin) and one metabolite of a human non-prescription drug (cotinine) were detected in the wells. Lincomycin was found at concentrations ranging from < 0.05 to 0.1 µg/L and cotinine was found at concentrations ranging from < 0.05 to 0.13 µg/L.

Schneider *et al.* (2004) measured the concentrations of 28 different pharmaceutical compounds in the leachate from two active municipal landfills in Germany that received household waste. While not explicitly stated, the fact that leachate production rates were listed suggests that both landfills were lined. Concentrations of the various compounds ranged from ng/L to µg/L

levels, with the highest concentrations being found for several analgesics (e.g., ibuprofen, propyphenazone, and phenazone) and an anticonvulsant (primidone). Details of the chemical concentrations can be found in Appendix A. The distribution and quantity of these compounds in the landfill leachates was compared to the distribution and quantity in municipal wastewater influent. It was found that the distributions were quite different, and that the contribution of the leachate stream to the total load of pharmaceuticals in the influent of the wastewater treatment plant was small.

### Foreign Literature

The specifics of two studies published in German were summarized in a literature review in English by Metzger (2004). As reported in that article, Schneider *et al.* (2001) measured the concentrations of several pharmaceutical compounds in two municipal landfills in Germany. Quantified drugs included clofibrac acid, diclofenac, ibuprofen, indomethacin, pentoxifylline and primidone; concentrations ranged from 1 to 20 µg/L. Metzger did not report any details regarding the specifics of the landfills. Concentrations of specific compounds can be found in Appendix A.

Metzger also summarized the work of Breidenich (2003) who investigated the presence of several drugs in the leachate from five active municipal landfills in Germany. Of the twelve pharmaceuticals investigated, large concentrations (5-10 µg/L) of clofibrac acid, ibuprofen, carbamazepine, and phenacetin were found in the leachates. It is assumed that some of the landfills were lined as some were equipped with leachate treatment systems. Carbamazepine, clofibrac acid, ibuprofen and diclofenac were also detected in groundwater down gradient of a closed landfill at concentrations ranging from 0.19 to 2.1 µg/L. Concentrations for specific compounds can be found in Appendix A.

### Fate of Pharmaceuticals in Landfill Leachate

Tischler/Kocurek (2007) prepared a report for the Pharmaceutical Research and Manufacturers of America, estimating the potential for release of 23 active pharmaceutical ingredients (APIs) to surface waters through disposal in Subtitle D municipal solid waste landfills (*i.e.*, those with low-permeability liners and leachate collection and/or treatment systems). Using reported pharmaceutical sales and estimates of the fraction of sold drugs disposed of in landfills (5-15%), municipal solid waste production, leachate production rates, compound specific partitioning coefficients, rates of anaerobic degradation and hydrolysis in landfills, and fractional removal of the APIs in leachate treatment systems (assumed to be equivalent to secondary wastewater treatment) the authors estimated the annual load of each API to surface water. The calculated mass loadings were compared with the loads of APIs released to surface waters through patient use via wastewater treatment plant effluent. Literature estimates of the loss by human metabolism and the degradation during conventional wastewater treatment were used in that calculation.

Not surprisingly, APIs with high sales and low partitioning coefficients had the highest potential release rates in landfill leachate. Despite several conservative estimates (e.g., disposal of drugs free of their packaging, leachate rates based on high average precipitation, and no assumed leachate recirculation or other operation to promote degradation), the average contribution of landfill leachate to the total load of all APIs to surface water was predicted to range from 0.21 to 0.78%. In other words, only a fraction of one percent of all APIs discharged to surface water was predicted to originate from drugs disposed of in municipal solid waste landfills. It should be noted that the predicted contribution of some individual APIs were considerably higher than the aggregate values reported above. Examples of APIs with high relative percentages

were albuterol sulfate (3-9%), doxycycline (2-6%), enalaprilat (7-19%), ibuprofen (4-10%), and norfloxacin (9-22%). In these cases, landfill disposal resulted in a higher percentage of the total load because the compounds had low partitioning coefficients and a large fraction of many of these compounds are metabolized, reducing the load to surface water via the patient use pathway.

The theoretical prediction that pharmaceuticals in leachate from municipal solid waste landfills accounts only for a small fraction of the total load of pharmaceuticals to a wastewater treatment plant (assuming that the leachate is disposed of to a sanitary sewer system) has been confirmed in one instance. Although specific percentages were not given, Schneider *et al.* (2004) reported that the contribution of landfill leachate to the total pharmaceutical load at a municipal wastewater treatment plant was small. Further evaluation of the results of the Tischler/Kocurek report can be accomplished by comparing the theoretical leachate concentrations presented in the report with field measurements from the studies cited above. Unfortunately, the only API predicted in the report and measured in the field is ibuprofen. The Tischler/Kocurek report predicts ibuprofen concentrations ranging from 43 to 130 mg/L in landfill leachate while actual field measurements ranged from 4 to 21  $\mu$ g/L (Paxeus, 2000; Schneider *et al.*, 2001; Breidenich, 2003; Schneider *et al.*, 2004). This comparison is further evidence that the estimates made in the Tischler/Kocurek report are indeed conservative. Nevertheless, active pharmaceutical compounds disposed of via municipal solid waste landfills are expected to contribute to the total load of those compounds to surface waters, if only at a small percentage of the total load including the patient use pathway.

Finally, the Tischler/Kocurek report indicates that the potential for release of pharmaceutical compounds from Subtitle D landfills to the underlying groundwater are negligible, based on the EPA's estimates of liner integrity and estimated lifetime. However, failure of landfill liners have been reported (Schwarzbauer *et al.*, 2002; Heim *et al.*, 2004). Furthermore, the literature cited above has also shown that disposal of pharmaceutical compounds to unlined landfills has occurred in the past and poses a substantial risk to the underlying groundwater.

## Discussion

It is clear from the available literature that a variety of pharmaceutical compounds are being detected in the leachate collected in lined landfills and in groundwater contaminated by seepage from unlined landfills. In one instance, groundwater was contaminated by a leaking lined landfill (Schwarzbauer *et al.*, 2002; Heim *et al.*, 2004). Concentrations of a wide variety of prescription and non-prescription drugs in the leachate and contaminated groundwater have been found to range from less than 1 ng/L to approximately 18 mg/L (see Appendix A). Among the most commonly detected pharmaceuticals were the analgesics ibuprofen (up to 20.7  $\mu$ g/L in leachate, up to 0.19  $\mu$ g/L in groundwater) and propyphenazone (up to 120  $\mu$ g/L in leachate, up to 4 mg/L in groundwater) and clofibric acid, an environmental metabolite of a blood lipid regulator (up to 10  $\mu$ g/L in leachate, up to 1.3  $\mu$ g/L in groundwater).

The context for this report is the disposal of unused/unwanted drugs to solid waste landfills. As such, it is important to examine the potential source of the drugs quantified in these studies. In a few of the studies cited above, landfills received large quantities of hospital waste (Eckel *et al.*, 1993) or waste from pharmaceutical production (Holm *et al.*, 1995; Ahel *et al.*, 1998; Ahel and Jelacic, 2001). The highest concentrations (i.e., greater than approximately 100  $\mu$ g/L) of pharmaceutical compounds found in the groundwater down gradient of these unlined landfills is likely attributable to the large loads of pharmaceutical waste, rather than the disposal of unused/unwanted drugs. However, these studies do demonstrate the mobility and persistence of certain classes of pharmaceutical compounds in landfill, soil and groundwater environments.

In addition to landfills receiving large quantities of pharmaceutical waste, some of the sites were noted to have received sludge from municipal wastewater treatment plants (Paxeus, 2000). It is possible that some of the pharmaceutical compounds present in the leachate originated from that sludge via municipal wastewater treatment, rather than the disposal of unwanted/unused drugs directly to the landfill. Although the earliest detections of pharmaceutical compounds in landfill leachates and contaminated groundwaters were from sites receiving large quantities of pharmaceutical waste, more recent studies, focusing on landfills receiving primarily commercial and household waste have also revealed the presence of pharmaceutical compounds in landfill leachate.

### Lined vs. Unlined Landfills

In only one documented instance has groundwater been contaminated by a lined landfill. In that case (Schwarzbauer *et al.*, 2002; Heim *et al.*, 2004), a known leak in the landfill liner was the source of the subsurface contamination. On the other hand, several unlined landfills have been shown to have contaminated the underlying groundwater with pharmaceutical compounds (Eckel *et al.*, 1993; Holm *et al.*, 1995; Ahel *et al.*, 1998; Ahel and Jelcic, 2001; Breidenich, 2003; Barnes *et al.*, 2004). Although lined landfills are successful at containing pharmaceutically active compounds, those compounds must be treated, either at a dedicated leachate treatment facility, or at a municipal wastewater treatment plant. Any compounds that remain after that treatment are discharged to the environment. The report by Tischler/Kocurek (2007) predicted the partitioning, degradation, and treatment of several pharmaceutical compounds in leachate from lined landfills. That analysis required a great number of assumptions and it is clear that improved understanding of the fate of pharmaceutical compounds in lined landfills and leachate treatment systems is necessary. A current study is underway at the University of Florida (Townshend, 2003), but no results have been published at this time.

### Active vs. Closed Landfills

There does not appear to be any correlation between the presence or absence of pharmaceuticals and whether the landfill is active or closed. However, the majority of the closed landfills that were investigated were unlined (Eckel *et al.*, 1993; Holm *et al.*, 1995; Breidenich, 2003; Barnes *et al.*, 2004). In those cases, direct contamination of the groundwater with pharmaceutical compounds was the result. Clearly, disposal of pharmaceuticals to unlined landfills poses a significant risk.

### Conclusions

A wide variety of pharmaceutical compounds have been detected in landfill leachate from lined landfills and in groundwater down gradient of unlined landfills. The presence or absence of pharmaceuticals does not appear to be correlated with the operating status of the landfill (active vs. closed). However, a larger number of closed landfills were unlined and therefore posed a greater risk of direct contamination of the groundwater. Neglecting the sites thought to be contaminated with hospital (Eckel *et al.*, 1993) or pharmaceutical production waste (Holm *et al.*, 1995; Ahel *et al.*, 1998; Ahel and Jelcic, 2001), concentrations of pharmaceutical compounds in leachate ranged from less than 10 ng/L to as high as 120 µg/L. In contaminated groundwater, concentrations ranged from < 1 ng/L to as high as 140 µg/L. Much higher concentrations (up to 18 mg/L) were found in groundwater contaminated by unlined landfills that had received pharmaceutical production waste.

The potential benefits of disposing pharmaceutical compounds to landfills are the partitioning of some pharmaceuticals to organic matter and biological or chemical degradation within the

landfill. However, the fraction of the pharmaceutical compounds that end up in the leachate must be removed prior to surface water discharge; some fractions of those compounds can escape treatment and end up in the environment. Theoretical predictions (Tischler/Kocurek, 2007) and field data (Schneider *et al.*, 2004) suggest that drugs disposed of in municipal solid waste landfills contribute only a small fraction (< 1%) of the total load of pharmaceutical compounds discharged to surface water via municipal wastewater treatment plants and landfill leachate treatment systems. However, for individual compounds, this percentage is estimated to be as high as 20%. Although the total load of pharmaceuticals to surface waters is predicted to be small, it is not zero. Furthermore, the likelihood that drugs disposed of in landfills will ultimately end up in surface water is compound specific.

These preliminary studies provide a starting point, but further research is necessary to more completely understand the transformation and ultimate fate of pharmaceutical compounds in landfill leachate. To date, only a few studies have examined the concentrations of pharmaceutical compounds in leachate from lined landfills (Paxeus, 2000; Schneider *et al.*, 2001; Schwarzbauer *et al.*, 2002; Breidenich, 2003; Heim *et al.*, 2004; Schneider *et al.*, 2004) and all of those studies focused on landfills in countries other than the U.S. Additional study in the U.S. is necessary to more fully evaluate the occurrence and fate of pharmaceuticals in landfill leachates and the potential implications of the White House Office of National Drug Control Policy's guidance directing consumers to dispose of unused pharmaceuticals in household trash.

## References

- Ahel, M. & Jelicic, I. (2001) Phenazone analgesics in soil and groundwater below a municipal solid waste landfill. in Daughton, C. G. & Jones-Lepp, T. L. (Eds.) *Pharmaceuticals and Personal Care Products in the Environment: Scientific and Regulatory Issues*. Washington, DC, American Chemical Society.
- Ahel, M., Mikac, N., Cosovic, B., Prohic, E. & Soukup, V. (1998) The impact of contamination from a municipal solid waste landfill (Zagreb, Croatia) on underlying soil. *Water Science and Technology*, 37 (8), 203-210.
- Barnes, K. K., Christenson, S. C., Kolpin, D. W., Focazio, M. J., Furlong, E. T., Zaugg, S. D., Meyer, M. T. & Barber, L. B. (2004) Pharmaceuticals and other organic waste water contaminants within a leachate plume downgradient of a municipal landfill. *Ground Water Monitoring and Remediation*, 24 (2), 119-126.
- Bellante, L., Chiavola, A., D'aprile, L. & Poletti, A. (2003) Assessment of the environmental impacts from drug disposal. *Proceedings of the 17th International Conference on Solid Waste Technology and Management*, 224-230.
- Bound, J. P. & Voulvoulis, N. (2005) Household disposal of pharmaceuticals as a pathway for aquatic contamination in the United Kingdom. *Environmental Health Perspectives*, 113 (12), 1705-1711.
- Breidenich, N. (2003) Drugs in leachates. *Stuttgarter Berichte zur Siedlungswasserwirtschaft*, 173 (Organische Spurenstoffe im Wasser: Kleine Konzentrationen--Grosse Wirkung?), 25-35.
- Eckel, W. P., Ross, B. & Isensee, R. K. (1993) Pentobarbital found in ground water. *Ground Water*, 31 (5), 801-804.

- Heberer, T. (2002) Occurrence, fate, and removal of pharmaceutical residues in the aquatic environment: a review of recent research data. *Toxicology Letters*, 131 (1-2), 5-17.
- Heim, S., Schwarzbauer, J. & Littke, R. (2004) Monitoring of waste deposit derived groundwater contamination with organic tracers. *Environmental Chemistry Letters*, 2 (1), 21-25.
- Holm, J. V., Ruegge, K., Bjerg, P. L. & Christensen, T. H. (1995) Occurrence and distribution of pharmaceutical organic compounds in the groundwater downgradient of a landfill (Grindsted, Denmark). *Environmental Science and Technology*, 29 (5), 1415-20.
- Jones, O. A. H., Voulvoulis, N. & Lester, J. N. (2005) Human pharmaceuticals in wastewater treatment processes. *Critical Reviews in Environmental Science and Technology*, 35 (4), 401-427.
- Metzger, J. W. (2004) Drugs in municipal landfills and landfill leachates. *Pharmaceuticals in the Environment (2nd Edition)*, 133-137.
- ONDCP (2007) Proper Disposal of Prescription Drugs *Drug Facts*. Last updated: 20 March 2007. ONDCP. accessed: 8 August 2007. <[http://www.whitehousedrugpolicy.gov/drugfact/factsht/proper\\_disposal.html](http://www.whitehousedrugpolicy.gov/drugfact/factsht/proper_disposal.html)>
- Paxeus, N. (2000) Organic compounds in municipal landfill leachates. *Water Science and Technology*, 42 (7-8), 323-333.
- Schneider, C., Kuch, B., Braun, M. & Metzger, J. W. (2004) Pharmaceuticals in landfill leachates and receiving WWTP influents (Poster). *14th Annual Meeting of SEATAC Europe*. Prague.
- Schneider, C., Mohle, E., Stenz, G., Kraus, P. & Metzger, J. W. (2001) Arzneimittel in Siedlungsabfallen und in Deponiesickerwassern. *Mull and Abfall*, 33 (6), 362-369.
- Schwarzbauer, J., Heim, S., Brinker, S. & Littke, R. (2002) Occurrence and alteration of organic contaminants in seepage and leakage water from a waste deposit landfill. *Water Research*, 36 2275-2287.
- Slack, R. J., Gronow, J. R. & Voulvoulis, N. (2005) Household hazardous waste in municipal landfills: contaminants in leachate. *Science of the Total Environment*, 337 (1-3), 119-137.
- Tischler/Kocurek (2007) Potential releases of unused medicines in subtitle D landfill leachate prepared for Pharmaceutical Research and Manufacturers of America.
- Townshend, T. G. (2003) Determination of Selected Pharmaceutical Compounds and their Fate in Modern Lined Landfills *Soil and Hazardous Waste Studies*. Last updated: 6 September 2006. University of Florida. accessed: 15 August 2007. <<http://www.ees.ufl.edu/homepp/townsend/Research/Pharm/default.asp>>
- USEPA (2007) *Pharmaceuticals and Personal Care Products*. Last updated: 12 June 2007. USEPA. accessed: 15 August 2007. <<http://www.epa.gov/ppcp/>>



## APPENDIX A - SUMMARY OF DATA FROM LITERATURE REVIEW

Drug Classification	Compound	Concentration (i g/L) <sup>1</sup>		Liner <sup>2</sup>	Active <sup>3</sup>	Source <sup>4</sup>	Citation <sup>5</sup>	Notes	
		Leachate	Groundwater						
analgesic, antiphlogistic, anti-inflammatory, antipyretic	aminopyrine	0.06-16	<0.05-36	N	Y	PPW	Ahel and Jelicic (2001)	solid waste (0.005-0.02 mg/kg) soil (0.003-0.007 mg/kg)	
	antipyrene	<0.05		N	Y	PPW	Ahel and Jelicic (2001)		
		1.8			Y*		Schneider et al. (2001)	data from Metzger (2004)	
	diclofenac			0.26	N*	N		Breidenich (2003)	data from Metzger (2004)
			3.19		Y*	Y	HW	Schneider et al. (2004)	median concentration
			1.183		Y*	Y	HW	Schneider et al. (2004)	median concentration
	dimethylamionphenazone		4.764		Y*	Y	HW	Schneider et al. (2004)	median concentration
			2.668		Y*	Y	HW	Schneider et al. (2004)	median concentration
	ibuprofen		8			Y		Paxeus (2000)	no HW at this landfill according to the article
			20.7			Y*		Schneider et al. (2001)	data from Metzger (2004)
			N.Q.	N.Q.	Y	Y		Schwarzbauer et al. (2002)	
			9.5			Y		Breidenich (2003)	data from Metzger (2004)
				0.19	N*	N		Breidenich (2003)	data from Metzger (2004)
				N.D.	Y	Y		Heim et al. (2004)	
				<0.005		Y		Heim et al. (2004)	groundwater discharge to surface water
			9.362		Y*	Y	HW	Schneider et al. (2004)	median concentration
			4.894		Y*	Y	HW	Schneider et al. (2004)	median concentration
			1.6			Y*		Schneider et al. (2001)	data from Metzger (2004)
	indomethacine		0.017		Y*	Y	HW	Schneider et al. (2004)	median concentration
			0.141		Y*	Y	HW	Schneider et al. (2004)	median concentration
			0.697		Y*	Y	HW	Schneider et al. (2004)	median concentration
	ketoprofen		0.438		Y*	Y	HW	Schneider et al. (2004)	median concentration
			0.445		Y*	Y	HW	Schneider et al. (2004)	median concentration
	naproxen		0.288		Y*	Y	HW	Schneider et al. (2004)	median concentration
			4.7			Y		Breidenich (2003)	data from Metzger (2004)
	phenacetin		37			Y		Paxeus (2000)	
			5.507		Y*	Y	HW	Schneider et al. (2004)	median concentration
			1.761		Y*	Y	HW	Schneider et al. (2004)	median concentration
	piroxicam		0.481		Y*	Y	HW	Schneider et al. (2004)	median concentration
			0.931		Y*	Y	HW	Schneider et al. (2004)	median concentration
	propyphenazone			<10-4000	N	N	PPW	Holm et al. (1995)	depth = 5.5-10 m; distance = 0-260 m down gradient
					N	Y	PPW	Ahel et al. (1998)	<0.01-0.1 mg/kg (soil); 0.1-10 mg/kg (solid waste)
		1.1			Y		Paxeus (2000)		
		49			N		Paxeus (2000)		
		3.7-60	5-50	N	Y	PPW	Ahel and Jelicic (2001)	solid waste (0.05-22 mg/kg) soil (0.003-2.9 mg/kg)	
		110-120	140	Y	Y		Schwarzbauer et al. (2002)		
			<0.001-1.4	Y	Y		Heim et al. (2004)		
			0.002-0.1	Y	Y		Heim et al. (2004)	groundwater discharge to surfacewater	
antibiotic	lincomycin		<0.05-0.10	N	N		Barnes et al. (2004)		
	sulfadiazine		<20-1160	N	N	PPW	Holm et al. (1995)	depth = 5.5-10 m; distance = 0-260 m down gradient	
	sulfadimidine		<20-900	N	N	PPW	Holm et al. (1995)	depth = 5.5-10 m; distance = 0-260 m down gradient	
	sulfaguanidine		<20-1600	N	N	PPW	Holm et al. (1995)	depth = 5.5-10 m; distance = 0-260 m down gradient	
	sulfametizole		<20-330	N	N	PPW	Holm et al. (1995)	depth = 5.5-10 m; distance = 0-260 m down gradient	
	sulfanilamide		<20-300	N	N	PPW	Holm et al. (1995)	depth = 5.5-10 m; distance = 0-260 m down gradient	
	sulfanilic acid		<20-10440	N	N	PPW	Holm et al. (1995)	depth = 5.5-10 m; distance = 0-260 m down gradient	

Drug Classification	Compound	Concentration (l g/L) <sup>1</sup>		Liner <sup>2</sup>	Active <sup>3</sup>	Source <sup>4</sup>	Citation <sup>5</sup>	Notes
		Leachate	Groundwater					
anticonvulsant, antiepileptic	carbamazepine	5.2			Y		Breidenich (2003)	data from Metzger (2004)
			2.1	N*	N		Breidenich (2003)	data from Metzger (2004)
	phensuximide	1.415		Y*	Y	HW	Schneider et al. (2004)	median concentration
		0.202		Y*	Y	HW	Schneider et al. (2004)	median concentration
			N.Q.	N	N	MW	Eckel et al. (1993)	
		3			Y*		Schneider et al. (2001)	data from Metzger (2004)
		5.011		Y*	Y	HW	Schneider et al. (2004)	median concentration
2.002		Y*	Y	HW	Schneider et al. (2004)	median concentration		
valproic acid	0.205		Y*	Y	HW	Schneider et al. (2004)	median concentration	
valproic acid	0.122		Y*	Y	HW	Schneider et al. (2004)	median concentration	
anti-foaming agent	tris(2-methylpropyl) phosphate		<1-80	N	N	PPW	Holm et al. (1995)	used in pharmaceutical production
antineoplastic	cyclophosphamide	0.192		Y*	Y	HW	Schneider et al. (2004)	median concentration
		0.097		Y*	Y	HW	Schneider et al. (2004)	median concentration
	ifosfamide	0.042		Y*	Y	HW	Schneider et al. (2004)	median concentration
		0.032		Y*	Y	HW	Schneider et al. (2004)	median concentration
antitussiva	dihydrocodeine	0.101		Y*	Y	HW	Schneider et al. (2004)	median concentration
		0.014		Y*	Y	HW	Schneider et al. (2004)	median concentration
barbituate	5,5-diallylbarbituric acid		<10-205	N	N	PPW	Holm et al. (1995)	depth = 5.5-10 m; distance = 0-260 m down gradient
beta-blocker	atenolol	0.044		Y*	Y	HW	Schneider et al. (2004)	median concentration
		0.034		Y*	Y	HW	Schneider et al. (2004)	median concentration
	metoprolol	0.031		Y*	Y	HW	Schneider et al. (2004)	median concentration
		0.024		Y*	Y	HW	Schneider et al. (2004)	median concentration
	propranolol	0.01		Y*	Y	HW	Schneider et al. (2004)	median concentration
		0.01		Y*	Y	HW	Schneider et al. (2004)	median concentration
bronchiodilator	clenbuterol	<0.01		Y*	Y	HW	Schneider et al. (2004)	median concentration
		<0.01		Y*	Y	HW	Schneider et al. (2004)	median concentration
byproducts of sulfonamide production	aniline		<10-1100	N	N	PPW	Holm et al. (1995)	depth = 5.5-10 m; distance = 0-260 m down gradient
	o-chloroaniline		<10-110	N	N	PPW	Holm et al. (1995)	depth = 5.5-10 m; distance = 0-260 m down gradient
	p-chloroaniline		<10-50	N	N	PPW	Holm et al. (1995)	depth = 5.5-10 m; distance = 0-260 m down gradient
hypnotic/sedative	pentobarbital		1	N	N	MW	Eckel et al. (1993)	
intermediate in production of meprobamate	2-methyl-2-n-propyl-1,3-propanediol		<10-18000	N	N	PPW	Holm et al. (1995)	depth = 5.5-10 m; distance = 0-260 m down gradient
lipid regulator	clofibric acid (a metabolite)	2.9			Y*		Schneider et al. (2001)	data from Metzger (2004)
		N.Q.	N.Q.	Y	Y		Schwarzbauer et al. (2002)	
		10			Y		Breidenich (2003)	data from Metzger (2004)
			1.3	N*	N		Breidenich (2003)	data from Metzger (2004)
			<0.005-1.1	Y	Y		Heim et al. (2004)	
			<0.005-0.055	Y	Y		Heim et al. (2004)	groundwater discharge to surfacewater
	2.658		Y*	Y	HW	Schneider et al. (2004)	median concentration	
	2.879		Y*	Y	HW	Schneider et al. (2004)	median concentration	
	bezafibrate	1.353		Y*	Y	HW	Schneider et al. (2004)	median concentration
2.773			Y*	Y	HW	Schneider et al. (2004)	median concentration	
metabolite of nicotine	cotinine		<0.05-0.13	N	N		Barnes et al. (2004)	

Drug Classification	Compound	Concentration (i g/L) <sup>1</sup>		Liner <sup>2</sup>	Active <sup>3</sup>	Source <sup>4</sup>	Citation <sup>5</sup>	Notes
		Leachate	Groundwater					
phosphodiesterase inhibitor	pentoxifylline	2.1			Y*		Schneider et al. (2001)	data from Metzger (2004)
production of vitamin C	isopropylidene carbohydrate deriv.			N	Y	PPW	Ahel et al (1998)	<0.1-1 mg/kg (soil) <0.1->10 mg/kg (solid waste)
psychiatric drug	diazepam	0.453		Y*	Y	HW	Schneider et al. (2004)	median concentration
		0.192		Y*	Y	HW	Schneider et al. (2004)	median concentration
sedative	meprobamate		N.Q.	N	N	MW	Eckel et al (1993)	
			N.Q.	N	N	PPW	Holm et al (1995)	anecdotal evidence
vasodilator	pentoxifylline	2.875		Y*	Y	HW	Schneider et al. (2004)	median concentration
		1.116		Y*	Y	HW	Schneider et al. (2004)	median concentration
x-ray contrast media	amidotrizoic acid	0.242		Y*	Y	HW	Schneider et al. (2004)	median concentration
	iomeprol	0.092		Y*	Y	HW	Schneider et al. (2004)	median concentration
		0.042		Y*	Y	HW	Schneider et al. (2004)	median concentration
	lopamidol	2.485		Y*	Y	HW	Schneider et al. (2004)	median concentration
		2.944		Y*	Y	HW	Schneider et al. (2004)	median concentration
	lopromide	0.199		Y*	Y	HW	Schneider et al. (2004)	median concentration
		0.236		Y*	Y	HW	Schneider et al. (2004)	median concentration

<sup>1</sup> N.D. = not detected; N.Q. = detected but not quantified.

<sup>2</sup> Y indicates that the landfill was lined, N indicates that the landfill was unlined. Entries with an asterisk were inferred. Blank entries indicate no data.

<sup>3</sup> Y indicates an active landfill; N indicates a closed landfill. Entries with an asterisk were inferred. Blank entries indicate no data.

<sup>4</sup> Column indicates the likely source of the pharmaceutical in the landfill. HW = household waste; MW = medical waste; PPW = pharmaceutical production waste.

<sup>5</sup> When more than one entry from the same reference for the same chemical, values refer to different landfills.

## 10.4 Appendix C: Potential Grant Options for Year 1 Funding

### 10.4.1 STATE

#### Program: Nonpoint Source Pollution 319 Grants

- Agency: DEQ
- Overview: Nonpoint source water quality and watershed enhancement projects that address the priorities in the Oregon Water Quality Nonpoint Source Management Plan.
- Award: Approximately \$2.7M available each year
- Link: <http://www.deq.state.or.us/bc/grants.htm>

#### Program: Solid Waste Grants

- Agency: DEQ
- Overview: Solid waste management and waste reduction programs
- Award: Approximately \$250,000 available each year
- Link: <http://www.deq.state.or.us/lq/sw/grants/index.htm>

#### Program: Opportunities for learning about watershed concepts

- Agency: Oregon Watershed Enhancement Board (OWEB)
- Overview: Must be used for education and outreach materials
- Award: Approximately \$500,000 total available each year
- Link: [http://www.oregon.gov/OWEB/GRANTS/education\\_grants.shtml](http://www.oregon.gov/OWEB/GRANTS/education_grants.shtml)

### 10.4.2 FEDERAL

#### Program: Pollution Prevention (P2) Grant Program

- Agency: EPA
- Overview: The grant program provides matching funds to state and tribal programs to support P2 activities across all environmental media and to develop state programs.
- Award: None listed
- Link: <http://www.epa.gov/oppt/p2home/pubs/grants/ppis/2007fpp2grant.htm>

#### Program: Source Reduction Assistance Grants: Program

- Agency: EPA
- Overview: To fund projects that support pollution prevention/source reduction and/or resource conservation activities.
- Award: Up to \$163,000 per region
- Link: <http://www.epa.gov/oppt/p2home/pubs/grants/srap06.htm>

**Program: General Matching Grants Program**

- Agency: National Fish and Wildlife Foundation
- Overview: Grants to projects that address priority actions promoting fish and wildlife conservation and the habitats on which they depend, work proactively to involve other conservation and community interests
- Award: Range from \$25,000-\$250,000
- Link: <http://www.nfwf.org/guidelines.cfm>

**Drug Free Communities Support Program**

- Agency: Substance Abuse & Mental Health Services Administration
- Overview: Program should achieve two major goals: Reduce substance abuse among youth and, over time, among adults by addressing the factors in a community that increase the risk of substance abuse and promoting the factors that minimize the risk of substance abuse.
- Award: \$100,000
- Link: [http://www.samhsa.gov/grants06/FEA/sp\\_06\\_003\\_dfc.aspx](http://www.samhsa.gov/grants06/FEA/sp_06_003_dfc.aspx)

**Strategic Prevention Framework State Incentive Grant Program**

- Agency: Substance Abuse & Mental Health Services Administration
- Overview: To build prevention capacity and infrastructure at the State/Tribal and community levels.
- Award: Up to \$2.3 million a year
- Link: [http://www.samhsa.gov/Grants06/FEA/sp06\\_002\\_sig.aspx](http://www.samhsa.gov/Grants06/FEA/sp06_002_sig.aspx)

**Program: Healthy Communities Grant Program Synopsis**

- Agency: EPA
- Overview: Funds projects that: Target resources to benefit communities at risk and sensitive populations, Assess, understand, and reduce environmental and human health risks, and Achieve measurable environmental and human health benefits.
- Award: Up to \$35,000
- Link: <http://www.grants.gov/search/search.do?oppId=12476&mode=VIEW>

**Program: Pollution Prevention Grants Program**

- Agency: EPA
- Overview: Grant dollars are targeted at State and Tribal technical assistance programs to assist businesses and industries in identifying better environmental strategies and solutions for reducing or eliminating waste at the source across all environmental media.
- Award: Up to \$200,000
- Link: <http://www.grants.gov/search/search.do?oppId=12426&mode=VIEW>

**Program: Prescription Drug Abuse**

- Agency: National Institutes of Health
- Overview: to address this issue are encouraged across a broad range of experimental approaches including basic, clinical, epidemiological, prevention, and treatment studies.
- Award: Funds available over \$500,000 per project per year
- Link: <http://grants.nih.gov/grants/guide/pa-files/PA-04-110.html>

**Program: Community Action For a Renewed Environment (CARE) Program**

- Agency: EPA
- Overview: The CARE program helps communities form collaborative partnerships, develop a comprehensive understanding of the many sources of risk from toxics and pollutants, set priorities, and identify and carryout projects to reduce risks through collaborative action at the local levels
- Award: \$2.7 million nationally
- Link: <http://www.epa.gov/CARE>

**10.4.3 PRIVATE****The Brainerd Foundation**

- Overview: Program grants may cover costs associated with a specific project of an organization, or be "general support" focused, meaning the grant may be applied to any portion of an organization's budget. Designated program areas: conservation policy, placed-based conservation and conservation capacity.
- Award: Usually range from \$20,000 - \$35,000 over two years
- Link: <http://www.brainerd.org/grants/intro.php>

**Bullitt Foundation**

- Projects to protect, restore, and maintain the natural physical environment of the Pacific Northwest for present and future generations.
- Link: <http://www.bullitt.org/grants>

**Pharmaceutical Trade Organization**

- As a NGO they are allowed to apply as well as give for grants

**M.J. Murdock Charitable Trust**

- The Trust makes grants primarily in five states of the Pacific Northwest in the areas of Interest of: Education, Scientific Research, Arts and Culture, Health and Human Services
- Link: <http://www.murdock-trust.org/>

**Meyer Memorial Trust**

- Overview: General Purpose Grants support projects related to arts and humanities, education, health, social welfare, community development, the environment and a variety of other activities.
- Awards: Up to \$200,000 a year
- Link: [http://www.mmt.org/grants\\_programs/gpp/](http://www.mmt.org/grants_programs/gpp/)

**Oregon Community Foundation**

- Overview: OCF provides a variety of charitable fund and gift options to help Oregonians make a difference.
- Link: [http://www.ocfl.org/grant\\_programs/grant\\_programs.html](http://www.ocfl.org/grant_programs/grant_programs.html)

## 11 References


- Ball, Judy K, Eric Johnson, and Elizabeth Foley. 2007. *Drug Abuse Warning Network, 2005: National Estimates of Drug Related Emergency Department Visits* [Report]. Office of Applied Studies 2005 [cited April 2007]. Available from <http://dawninfo.samhsa.gov/files/DAWN-ED-2005-Web.pdf>.
- Barber, Larry B., Sheila F. Murphy, Philip L. Verplanck, Mark W. Sandstrom, Howard E. Taylor, and Edward T. Furlong. 2006. Chemical Loading into Surface Water along a Hydrological, Biogeochemical, and Land Use Gradient: A Holistic Watershed Approach. *Environmental Science and Technology* 40 (2):475-486.
- Barnes, KK, SC Christenson, DW Kolpin, MJ Focazio, ET Furlong, SD Zaugg, MT Meyer, and LB Barber. 2004. Pharmaceuticals and other organic waste water contaminants within a leachate plume downgradient of a municipal landfill *Ground Water Monitoring and Remediation* 24 (2):119-126.
- Bateman, Brenda, Ralph Thonstad, and Daniel Danicic. 2007. Conflicting Public Policies: Why is it so difficult to keep pharmaceuticals out of the water? *Water Resources Impact* 9 (3):18-21.
- Bay Area Pollution Prevention Group. 2006. Report on the San Francisco Bay Area's Safe Medicine Disposal Days.
- Bound, Jonathan P., and Nikolaos Voulvoulis. 2005. Household Disposal of Pharmaceuticals as a Pathway for Aquatic Contamination in the United Kingdom. *Environmental Health Perspectives* 113 (12):1705-1711.
- Buzby, Mary E. 2007. *Pharmaceuticals in the Environment: PhRMA PIE Perspective* [Presentation], May 22 2007 [cited May 30 2007]. Available from [http://www.disc.ca.gov/AssessingRisk/PPCP/upload/04\\_Buzby.pdf](http://www.disc.ca.gov/AssessingRisk/PPCP/upload/04_Buzby.pdf).
- Carter, Thomas W. 2006. *Safe Drinking Water Act and Its Interpretation*. First ed. New York: Nova Science Publishers.
- Christensen, F. M. 1998. Pharmaceuticals in the Environment—A Human Risk? *Regulatory Toxicology and Pharmacology* 28 (3):212-221.
- Clark County Public Works. 2006. Medical Waste -- Unwanted Medications, edited by C. C. P. Works.
- Clark County Solid Waste. 2006. *Unwanted Medications Take Back Program*. Portland, OR. Power Point.
- Cocke, William. 2006. *Male Fish Producing Eggs in Potomac River*, November 3 2004 [cited October 10 2006]. Available from [http://news.nationalgeographic.com/news/2004/11/1103\\_041103\\_potomac\\_fish.html#main](http://news.nationalgeographic.com/news/2004/11/1103_041103_potomac_fish.html#main).

- Colliver, J D, L A Kroutil, L Da, and J C Gfroerer. 2007. *Misuse of prescription drugs: Data from the 2002, 2003, and 2004 National Surveys on Drug Use and Health* [Report]. Office of Applied Studies 2006 [cited June 3 2007]. Available from <http://oas.samhsa.gov/prescription/toc.htm>.
- Daughton, C. G. 2004. Ground Water Recharge and Chemical Contaminants. *Ground Water Monitoring and Remediation* 24 (2):127-138.
- Daughton, C. G., and T. A. Ternes. 1999. Pharmaceuticals and Personal Care Products in the Environment: Agents of Subtle Change? *Environmental Health Perspectives* 107 (Supplement 6): 907-938.
- Health Resources and Services Administration. 2007. *Poisoning in the United States* [cited Feb 3, 2007]. Available from <http://www.hrsa.gov/poisoncontrol/default.htm>.
- Henry F. Kaiser Family Foundation. 2007. *State Health Facts: Oregon Prescription Drugs* [Report], March 25 2007 [cited 2007]. Available from <http://statehealthfacts.org/cgi-bin/healthfacts.cgi?action=profile&ar...egon&category=Health+Costs+%26+Budgets&subcategory=Prescription+Drugs>.
- Hinkle, Stephen R., Rodney J. Weick, Jill M. Johnson, Jeffery D. Cahill, Steven G. Smith, and Barbara J. Rich. 2005. Organic Wastewater Compounds, Pharmaceuticals, and Coliphage in Ground Water Receiving Discharge from Onsite Wastewater Treatment Systems near La Pine, Oregon: Occurrence and Implications for Transport: USGS.
- Jackson, Jen. 2007. *Pharmaceuticals: an "Emerging" Contaminant* [Presentation], November 13 2006 [cited June 7 2007]. Available from <http://www.oracwa.org/files/news/179/Pharmaceuticals--Jen-Jackson.pdf>.
- Kolpin, D., E. Furlong, M. Meyer, E.M. Thurman, S. Zaugg, L. Barber, and H. Buxton. 2002. Pharmaceuticals, Hormones, and Other Organic Wastewater Contaminants in U.S. Streams, 1999-2000: A National Reconnaissance. *Environmental Science Technology* 36 (6):1202 - 1211.
- Kostich, Mitch, and Jim Lazorchak. 2006. *An informatic approach to estimating ecological risks posed by pharmaceutical use: Human prescription pharmaceuticals*. Power Point.
- Kuspis, D A, and E P Krenzelok. 1996. What happens to expired medications? A survey of community medication disposal. *Veterinary and Human Toxicology* 38:48-49.
- Mannina, George J. 2006. Medicines and the Environment: Legal and Regulatory Storms Ahead? *Washington Legal Foundation* 21 (11):4.
- Nagler, James J., Jerry Bouma, Gary H. Thorgaard, and Dennis D. Dauble. 2001. High Incidence of a Male-Specific Genetic Marker in Phenotypic Female Chinook Salmon from the Columbia River. *Environmental Health Perspectives* 109 (1):67-69.
- National Archives and Records Administration. 2006. *Title 21: Food and Drugs* [Statute], January 8 2004 [cited October 3 2006]. Available from [http://www.access.gpo.gov/uscode/title21/chapter13\\_subchapter1.html](http://www.access.gpo.gov/uscode/title21/chapter13_subchapter1.html).
- National Association of Chain Drug Stores. 2007. *Rx Sales 2006* [Report], June 9 2007 [cited June 12 2007]. Available from <http://www.nacds.org/wmspage.cfm?parm1=507>.



- NDWAC. 2007. *National Drinking Water Advisory Council Report on the CCL Classification Process to the U.S. Environmental Protection Agency* [Report]. National Drinking Water Advisory Council, May 18 2004 [cited June 3 2007]. Available from [http://www.epa.gov/safewater/ndwac/pdfs/report\\_ccl\\_ndwac\\_07-06-04.pdf](http://www.epa.gov/safewater/ndwac/pdfs/report_ccl_ndwac_07-06-04.pdf).
- NEMU. 2007. *Thermostat Recycling Corporation* [Information] 2007 [cited June 9 2007]. Available from <http://www.nema.org/gov/ebs/trc/>.
- Office of Diversion Control. *Controlled Substances in Alphabetical Order* 2006 [cited]. Available from <http://www.dea/diversion.usdoj.gov/schedules/alpha/alphabetical.htm>.
- Oregon Board of Pharmacy. 2007. OAR 855-041-0080 Returned Drugs and Devices.
- Oregon Department of Human Services. 2004. 24 Hour Residential Services for Children and Adults with Developmental Disabilities.
- Oregon Poison Center. 2006. *2004 Annual Report* [Annual Report]. Oregon Poison Center 2004 [cited October 3 2006]. Available from <http://www.ohsu.edu/poison/about/annualReports.htm>.
- Oregon Progress Board. 2007. *Benchmark Report to the People of Oregon* [Report], April 2007 [cited May 30 2007]. Available from <http://benchmarks.oregon.gov/>.
- Population Research Center. 2007. *Certified Population Estimates for Oregon and Its Counties* [Report]. Portland State University, December 15 2006 [cited January 15 2007]. Available from <http://www.pdx.edu/prc>.
- Post Consumer Pharmaceutical Stewardship Association. 2006. Medications Return Program Report: January 1, 2005 - December 31, 2005.
- Raloff, J. 2004. Contraceptive Ring Could Pose Risks After Its Disposal. *Science News*.
- RBRC. 2007. *Call2Recycle* [Information Piece] 2006 [cited June 9 2007]. Available from <http://www.rbrc.org/call2recycle/>.
- State of Maine 122nd Legislature. 2006. *Final Report of the Maine Drug Return Implementation Group* State of Maine 122nd Legislature, March 8 2005 [cited October 3 2006]. Available from <http://www.maine.gov/legis/opa/drugrpt.pdf>.
- State of Maine Legislature. 2006. *An Act To Encourage the Proper Disposal of Expired Pharmaceuticals* [Legislative Bill], April 16 2004 [cited October 3 2006]. Available from <http://janus.state.me.us/legis/LawMakerWeb/externalsiteframe.asp?ID=280012218&LD=1826&Type=3&SessionID=5>.
- Substance Abuse and Mental Health Services Administration. 2007. *Federal Report Shows New Nonmedical Users of Prescription Pain Relievers Outnumbered New Marijuana Users between 2002 and 2004*, November 2 2006 [cited January 3 2007]. Available from <http://www.samhsa.gov/newsroom/advosories/061102misuse5701.aspx>.
- U.S. Department of Health and Human Services. 2006. *Medical Privacy - National Standards to Protect the Privacy of Personal Health Information* [Regulation]. Office for Civil Rights, May 16 2006 [cited September 30 2006]. Available from <http://www.hhs.gov/ocr/hipaa/finalreg.html>.

- \_\_\_\_\_. 2005. 2005 National Survey on Drug Use and Health, Substance Abuse and Mental Health Services Administration. Available from <http://oas.samhsa.gov>
- U.S. Drug Enforcement Administration. 2006. *21 USC Sec. 822* [Code] 2002 [cited October 10 2006]. Available from <http://www.usdoj.gov/dea/pubs/csa/822.htm>.
- U.S. Environmental Protection Agency. *Pharmaceuticals and Personal Care Products (PPCPs) as Environmental Pollutants* 2006 [cited. Available from <http://www.epa.gov/nerlesd1/chemistry/pharma>.
- \_\_\_\_\_. 2006. *RCRA Online* 2006 [cited September 30 2006]. Available from <http://www.epa.gov/rcraonline/RCRA>.
- U.S. Fish & Wildlife Service, and American Pharmacists Association. 2007. *Improper Disposal of Unused Medications Sparks Creation of New Awareness Program* [Press Release], March 17 2007 [cited April 1 2007]. Available from <http://www.fws.gov/southeast/news/2007/r07-050.html>.
- U.S. Postal Service. 2006. *Mailing Standards of the United States Postal Service Domestic Mail Manual* 2006 [cited September 30 2006]. Available from <http://pe.usps.com/text/dmm300/pub268.htm>.

**Date:** November 30, 2007  
**To:** Environmental Quality Commission  
**From:** Dick Pedersen, Deputy Director   
**Subject:** Agenda Item R, Informational Item: Preliminary 2009 Legislative Agenda  
December 13-14, 2007 EQC Meeting

**Purpose of Item** At its Strategic Planning discussion in October, the Environmental Quality Commission (Commission, EQC) expressed interest in a number of topics that are considerations for the Department of Environmental Quality (Department, DEQ) 2009 Legislative Agenda. This presentation will inform the Commission of the ideas DEQ programs have been discussing since October as the Department prepares to develop firm legislative concepts and budget policy packages in early 2008. This information will allow Commissioners to provide guidance to staff as the development process continues into 2008.

**Background** Every two years, state agencies must develop legislative concepts and budget policy packages as part of the legislative and budget development process. The October 2007 Strategic Planning discussion began development of the 2009 Legislative Agenda. This development process will continue throughout 2008 in preparation for the 2009 Legislative Session. Key deadlines in this process include:

- Submittal of draft legislative concepts to the Department of Administrative Services (DAS) on April 4, 2008; and
- Submittal of the Agency Request Budget on September 1, 2008 to DAS and the Governor's Office. This submittal includes the base budget and the budget policy packages.

**EQC Involvement** At each of the 2008 Commission meetings, DEQ plans to bring updates and seek input on the development of the 2009 Legislative Agenda, with the goal of actively engaging the Commission in the development of legislative concepts, budget policy packages and the base budget. At the August 2008 meeting, the Commission Chair will need to certify the 2009-11 Agency Request Budget for submittal to DAS and the Governor's Office on September 1, 2008.

Approved:

Office of the Director: Gregory K. Aldrich

Report Prepared By: Gregory K. Aldrich  
Phone: (503) 229-6345

**DEQ's 2009-11 Legislative Agenda**  
December 14, 2007 EQC Talking Points - Greg Aldrich

Brief Presentation Outline

1. Overview of legislative concept and budget development process
2. Governor's Priorities
3. Preliminary legislative concepts and budget policy package ideas
4. Next steps

**1. Describe the legislative concept and budget development process:**

- October EQC Meeting – Strategic Planning discussion
  - Kick off to think about legislative agenda issues
  - DEQ programs considered your directions and priorities in developing the first ideas for legislative concepts and budget policy packages
- Provide an overview of the legislative agenda development process
  - Legislative Agenda
    - Continuing service level budget (base budget)
    - Restoration packages
    - Budget policy packages
    - Legislative concepts – changes to statute
      - To fix problems in current statutes
      - Incorporate new state or federal requirements
      - Modify statutory fees, or
      - Create new provisions to address environmental problems
      - Approved concepts become bills filed by the Governor
      - Some leg concepts, such as for fee increases, will have a budget policy package if it includes funding for staff.
  - 3 major stages to budget development:
    - Agencies submit their agency request budgets to DAS and Governor by September 2008
    - The Governor reviews the requests and may make changes to reflect his priorities and policies. He must submit a balanced state budget to the Legislature by January 2009
    - The Legislature debates the Governor's Recommended Budget through the Ways & Means Committee process, modifies the budget, and passes a bill to authorize the budget by June 2009.
- Refer to timeline handout and walk through it

## 2. Governor's Priorities:

### Governor's Top Priorities

- Health care
- Education
- Transportation

### Governor's Natural Resource Office Priorities

- Climate Change
- Toxics – current interagency collaborative efforts are underway
- Water Initiative – H2O – Headwaters to Ocean
- (Marine Reserves – seems to be emerging)
- *Sustainability – energy efficiency, reducing waste*

### Other Significant Activities

- Sen. Avakian's pesticides task force

## 3. Preliminary legislative concepts and budget policy package ideas:

Focus of today's presentation is on the preliminary ideas for legislative concepts and budget policy packages

- As noted earlier, these will be refined during the next several months
- Collaborative efforts are underway to coordinate with ODA, ODF, WRD, ODOT, DHS/Public Health, DOE
- To date, we have very little guidance from the Governor's Office and DAS regarding the development of legislative concepts and the budget

General Themes for 2009 – for both legislative concepts and budget policy packages are organized around the DEQ Strategic Directions

- Excellence
- Promoting Sustainable Practices
- Improving Oregon's Air & Water
- Protecting People and the Environment from Toxics
- Involving Oregonian's in Solving Problems

### Providing Excellence

- Electronic permitting and reporting
- Small business assistance
- Catastrophic and emergency response
- Streamlining business practices

### Promoting Sustainable Practices

- Climate change, particularly implementing the Governor's initiatives such as the Greenhouse Gas Reporting rule. Involves activities by AQ, LQ and WQ *Cap and trade system*
- Addressing impacts of transportation sector priorities, such as construction, improving movement of freight, analyzing greenhouse gases and toxics impacts for new projects, etc. (AQ and WQ)
- Bottle Bill enhancements (SB 707 in 2007) – stemming from the task force

### Improving Oregon's Air & Water

- Monitoring and assessment (AQ & WQ) – *available externally to public*
- Participating in the H2O Initiative
- Program fee increases
- Agencywide infrastructure and Information Technology (IT) upgrades, *costly, multi-year*
- Woodstoves (SB 338 in 2007) *change-outs, to deal w/ FP stds*
- NPS work
- WQ standards and assessment funding
- Addressing recommendations from the Dairy Air Task Force (SB 235 in 2007)
- *Marine reserves*

*BB: why here?  
A: because it's  
such a high  
priority for  
water programs*

### Protecting People and the Environment from Toxics

- Monitoring and analysis
- Clean Diesel (HB 2172 in 2007)
- Implementing WQ Toxics Reductions (SB 737 in 2007)
- Implementing federal air toxics requirements for small businesses *(1,000-5,000 new businesses)*
- Pesticide Stewardship Partnership
- Orphan sites funding – *more GF for this, maintenance after cleanup*
- Emerging chemical and toxics policy (earlier presentation)

### Involving Oregonian's in Solving Problems

- Making environmental data available to the public
- State Revolving Fund (clean water infrastructure) funding options
- Addressing pharmaceutical/drug take back options
- Risk communication and education outreach
- Staff support for local community decision making (AQ)
- *education about waste reduction, toxics*

*2007 Bill that will return: Environmental Enhancement Tax Credits*

#### 4. Next Steps:

- Ongoing conversations with the Governor's Natural Resource Office
- Ongoing collaborating with other state agencies
- Checking in with key legislators
- Public Involvement/Stakeholder Outreach

#### Moving Forward/EQC Involvement:

1. Do you have any questions or need clarification?
2. Are there issues that raise red flags for you or is there something missing?
3. Do you have specific requests for types of information to be presented at the February meeting?

#### Next meeting –February 21-22 – focus on budget development

- At that time, we will have better defined legislative concepts and budget policy packages to present and discuss.

#### Closing

- Are there questions about today's presentation?

Thank you!



## DEQ's 2009-11 Legislative Agenda Development Timeline

June 2007

- DEQ's 2007-09 Budget was adopted

October 2007

- 18-19 EQC Strategic Planning Session and Discussion

December 2007

- 14 – EQC meeting to share preliminary concepts for the legislative agenda

Late 2007 through February 2008

- Development begins on 2009-11 Budget
  - Determine cost of currently approved programs adjusting for 2009-11 costs
  - Estimate future revenues
  - Determine “restorations” needed to cover future costs
  - Develop budget package proposals for new work that DEQ anticipates doing
  - Develop legislative concepts

February 2008

- 21-22 - EQC Meeting – focus on draft legislative concepts and budget policy packages

March 2008

- 1 – Budget and Legislative Concept Instructions are released by DAS (may be sooner)
- Ongoing legislative concept and budget policy package proposal development

April 2008

- Stakeholder Outreach
- Ongoing legislative concept and budget policy package proposal development
- 4 – Legislative concepts are due to DAS
- 24-25 – EQC Meeting – focus on budget development

May 2008

- Ongoing budget development

June 2008

- 2– DAS submits approved legislative concepts to Legislative Counsel
- 19-20 – EQC Meeting – update on legislative agenda
- 30 – Budget request submitted to DAS for audit

July 2008

- Budget narrative development
- 14 – Last day to modify legislative concepts

August 2008

- Budget narrative development
- 21-22 – EQC Meeting – legislative agenda update and Chair signs the Budget Certification Form (part of the agency of budget request document)

September 2008

- 1 – Agency Request Budget due to DAS and Governor

Fall 2008

- DEQ works with Legislative Counsel on draft bills (legislative concepts)
- DAS and Governor review DEQ budget request
- Governor's Recommended Budget submitted to the Legislature
- Governor pre-session files approved bills

January 2009

- 12 – 2009 Legislative Session begins