



# INSIDER



A MONTHLY DIGEST OF ENVIRONMENTAL MANAGEMENT & REGULATORY NEWS

*Inside...*

## OREGON WATER QUALITY ISSUES

WATER QUALITY 2007: EMERGING CHALLENGES & SOLUTIONS  
CONFERENCE HIGHLIGHTS

by Gregg Bryden, Kennedy/Jenks Consultants

□ The 2007 Oregon Water Quality Conference held 8 June in Portland highlighted the emerging challenges and solutions to water quality issues in Oregon. The conference provided a spectrum of viewpoints from regulatory agencies, environmental activists, consultants, attorneys, dischargers, and creative problem solvers.

### REGULATORS AND THE REGULATED

#### News from EPA Region X

Christine Psyk, Associate Director of the Office of Water and Watersheds at US Environmental Protection Agency (EPA) Region X provided an overview of federal initiatives in the region. Ms. Psyk described new challenges for water quality regulation under the Clean Water Act, including: climate change; nutrient impairments; aging water and wastewater infrastructure; mercury; and dams.

Ms. Psyk predicted that climate change will have significant and increasing impacts on water resources in terms of: temperature; the amount and distribution of rainfall; storm intensity; water chemistry; and sea level rise. These impacts will compel adaptation to the new circumstances.

#### SOME CLIMATE CHANGE ASSOCIATED ADAPTATIONS WILL INCLUDE:

- Policy adjustment
- Significant capital investment in stormwater infrastructure
- More storage reservoirs to replace diminishing snowpack
- Protection of wastewater treatment plants because they are often located in floodplains.

Nutrients are also a continuing concern for EPA Region X. Many Pacific Northwest waterbodies — including the Spokane River, Boise River, Snake & Portneuf Rivers, and Puget Sound — are exceeding their assimilative capacity for nutrients. There are approximately 1,000 waterbodies in the region that are listed as water quality impaired due to nutrients. Nitrogen and phosphorus are typically the nutrients of concern. These pollutants can cause algae blooms and subsequent oxygen depletion. Stringent water quality standards for phosphorus, as low as 50 micrograms per liter, are often required to maintain healthy streams and rivers. Stringent water quality standards for nutrients often force wastewater treatment plants to install advanced treatment systems, which, according to a recent survey of treatment plants, can cost ratepayers an additional \$18 to \$46 per month. [More information on advanced phosphorus treatment is available at the Region X website: <http://www.epa.gov/region10/phosphorus-technologies.htm>]

Aging infrastructure and rapid growth are posing challenges to the ability of municipalities to fund necessary expansion and repairs of plants and piping originally constructed in the 1970s. According to a gap analysis conducted by EPA in 2002, over five hundred billion dollars (\$500,000,000,000) will be needed over the next twenty years to repair and expand existing water and wastewater infrastructure. This estimate does not include potential impacts associated with climate change.

**Water Quality  
Issues**

According to Ms. Psyk, an infusion of new federal funding to meet these growing needs is unlikely. Instead, EPA plans to rely on collaborative efforts toward sustainable infrastructure. These efforts may include: better management; water efficiency; full cost pricing (i.e., user fee based funding); and watershed based approaches to managing resources. An example of the “full cost pricing” approach is EPA’s plan to fund State Revolving Funds (SRFs) through 2011, and thereafter requiring the SRF program to be self-sustaining through loan repayments and interest.

**Mercury**

Mercury continues to be a vexing water quality issue largely because of difficulty controlling some sources. This is especially true concerning air deposition from global sources. EPA is working across its environmental programs and collaborating with States and regions to find solutions. Meantime, EPA is recommending the voluntary approach for States that have a comprehensive mercury reduction program with elements recommended by EPA. These States may separate their waters impaired by mercury predominantly from atmospheric sources in a subcategory of their impaired waters list (“5m”) and defer the development of TMDLs for those waters. [For more information on this proposed regulatory change, see EPA’s website: [www.epa.gov/owow/tmdl/mercury5m](http://www.epa.gov/owow/tmdl/mercury5m)]

**Dam  
Operations**

EPA is also looking at the impacts that dam operations have to water quality. These include impacts to temperature; nutrient loads; and fish passage issues. EPA is continuing to work with dam operators to find operational solutions. Solutions, however, remain elusive. Ms. Psyk noted the recent or planned removals of a number of smaller dams in the region as one potential solution.

Ms. Psyk summed up by highlighting current regulatory developments, regional priorities in Oregon, and changes in Region X funding programs.

**Regulation  
Developments**

## REGIONAL REGULATORY DEVELOPMENTS INCLUDE:

- EPA has made changes to the Permit Fee Rule that require state programs to meet a target of 75 percent self-support through user fees to qualify for CWA section 106 grant monies
- EPA has issued a final rule on aquatic pesticides that exempts pesticide application from NPDES permit requirements if they are applied according to Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) requirements
- EPA has responded to a recent court decision on Confined Animal Feeding Operations by updating the program to include public review of nutrient management plans and making the plans part of the permit
- EPA proposed a water transfer rule that will exempt water transfers from NPDES requirements provided pollutants are not introduced
- EPA is looking at regulating ship ballast, bilge, and deck runoff water by September 2008
- EPA is looking at how to incorporate compliance schedules into permits when the schedule spans a period of time greater than the five-year permit cycle

**Regional  
Priorities**

## REGIONAL PRIORITIES INCLUDE:

- Updating fish consumption rates or otherwise protecting populations that consume higher than average amounts of fish (see Article, *Insider* #416/417)
- Finding alternatives to litigation as a means to resolving water quality issues
- Making the Columbia River a national priority, and supporting market based ecosystem solutions

**Funding**

Regarding funding, while Region X’s federal Clean Water Act (CWA) Section 106 funding to States and Tribes has grown from about \$14 million in 2004 to about \$16 million in 2007, the base operating funding has actually declined against inflation. At the same time, there has been a shift to increase monitoring funding. Funding for State Revolving Funds and CWA 319 non-point source programs have actually declined over the last three years.

## FOR MORE INFORMATION ON EPA REGION X WATER QUALITY INITIATIVES, CONTACT:

Christine Psyk, EPA Region X Office of Water and Watersheds, 206/ 553-1906 or email: [psyk.christine@epa.gov](mailto:psyk.christine@epa.gov)

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**The State of Oregon Perspective**

**Water Quality Issues**

**DEQ Priorities**

**Permits**

**TMDLs**

**Effluent Trading**

**Fish Consumption**

**MS4s**

**SB 737**

**Budget**

**UIC Program**

**Standards Updating**

**Policy Shift**

Lauri Aunan, Water Quality Administrator for the Oregon Department of Environmental Quality (DEQ) provided insight on State water quality initiatives. DEQ priorities in water quality continue to focus on permit backlogs and completing Total Maximum Daily Loads (TMDLs — see Bryden/Shojinga, *Insider* #410/411). DEQ is also making progress with: stormwater permits; standards development; trading programs; and water reuse programs — all while facing budget constraints and increasing workloads.

Ms. Aunan cited specific efforts to improving the NPDES permit process, including making investments in information technology to streamline permit processing. DEQ makes quarterly progress reports on the NPDES permit backlog to the Environmental Quality Commission (EQC). At this time, 81 percent of all state issued NPDES permits are current. DEQ’s goal for 2007 is to push that number to 90 percent.

DEQ is on-track with completing TMDLs as scheduled in its Consent Decree. A total of 872 TMDLs have been completed statewide and approved by EPA. These include the very complex TMDLs for the Willamette (see Wolf, *Insider* #402/403) and Umpqua basins. DEQ plans to have 982 TMDLs done by 2008, and all 1150 complete by 2010. Some TMDLs have been challenged, including the Willamette TMDL (see Maffei, *Insider* #408/409). However, DEQ hopes to resolve some of the contentious issues through the development of practical implementation plans.

RECENT DEQ INITIATIVES MS. AUNAN DESCRIBED INCLUDE:

- DEQ is actively supporting effluent trading programs, using the Clean Water Services permit as a model.
- DEQ is holding a series of workshops on fish consumption rates, which are used to set human health based water quality standards (see Article, *Insider* #416/417). The next workshop is in Portland on 17 July, check the DEQ website for details: <http://www.deq.state.or.us/wq/standards/toxics.htm>.
- DEQ has issued 15 Phase II Municipal Separate Storm Sewer System (MS4) permits this year, and is gearing up to renew Phase I permits. DEQ has also completed renewal of the industrial 1200-Z and Columbia Slough (1200-COLS) permits; however these permits, developed in response to litigation, are or are likely to be challenged again.

On the legislative front, DEQ is watching Senate Bill 737, which originally proposed to ban mixing zones. Proponents of the bill have reached a compromise with municipal dischargers and the bill now proposes to focus on monitoring, persistent bioaccumulative substances, and toxics reduction. This bill was in the Ways and Means Committee, but has not been scheduled for a vote at the time of writing.

DEQ had some success with funding support from Oregon state legislature this year. DEQ’s budget, set for a floor vote soon, would create 41 new full time positions in water quality, phased in over the next few years. The new positions will be dedicated to core work including groundwater protection (including keeping state primacy of the Underground Injection Control Program (see Light, *Insider* #395)) and water quality assessments. The positions are dependant upon successful revamping of fee structures which will require rulemaking and approval by EQC. DEQ plans to use some of these new staff to help implement the Part II recommendations of the Blue Ribbon Committee on streamlining permit processes, to develop green infrastructure initiatives, and to improve enforcement.

DEQ requested six additional positions for water quality standards and assessment, but only received authorization for three positions. These new positions will work on updating water quality standards, including the outdated turbidity standard. DEQ is also developing a new toxics monitoring program that will involve ten new positions. The effort will develop the monitoring program and a website that will provide monitoring data to stakeholders. The monitoring program will initially focus on the Willamette Basin.

FOR MORE INFORMATION ON DEQ’S WATER QUALITY PROGRAM, CONTACT: Ms. Aunan, DEQ Water Quality Administrator, 503/ 229-5327 or email: [aunan.lauri@deq.state.or.us](mailto:aunan.lauri@deq.state.or.us).

**Regulated Community Viewpoint**

Charles Logue, Director of Regulatory Affairs for Clean Water Services, provided perspectives from the regulated community. Mr. Logue highlighted the evolution of the CWA from technology based performance standards in the 1970s and 1980s, to water quality based permitting in the 1990s and early 2000s. There is now movement toward watershed-based solutions. This watershed-based approaches parallels our understanding that simple end-of-pipe regulation will not meet the needs of complex ecosystem health.

**Water Quality  
Issues****Treatment  
Challenges****Aging  
Infrastructure****Uncertainties****Creativity****Act of Congress?****Federal  
Jurisdiction****SWANCC**

Mr. Logue explained that the regulated community is looking to watershed-based approaches to help solve the many challenges municipal water treatment managers are facing.

**CURRENT WATER TREATMENT CHALLENGES INCLUDE:**

- Aging infrastructure
- Demands for clean water
- Resistance to rate increases
- Regulatory uncertainty
- Lack of coordination of regulatory programs.

As also indicated in Ms. Psyk's presentation, much water and wastewater infrastructure is reaching the end of its useful lifespan. At the same time, federal funding for infrastructure projects is being reduced. Meantime, environmental groups and the general public are calling for more action to improved water quality in lakes, streams, and oceans. Lack of funding and increased litigation over water quality standards and permits has led to uncertainty about how to plan for discharge treatment options. Mr. Logue cited a number of factors contributing to this uncertainty, including: lack of timely decisions by regulators; few incentives for pioneering new solutions; lack of reasonable prioritization; a gap between science and policy; and an overall aversion to risk. All these act as barriers to effecting water quality solutions and managing municipal discharges.

Uncertainties regarding ammonia, bacteria, and toxics standards are specific examples of current challenges that Clean Water Services has to plan for and manage. This planning is made more difficult by having to comply with uncoordinated regulatory "silos" such as the CWA, Safe Drinking Water Act, and Endangered Species Act.

However, Mr. Logue noted that creative thinkers within the regulated community have successfully begun to meet these challenges by employing new tools.

**THESE CREATIVE APPROACHES INCLUDE:**

- Watershed-based permitting
- Water quality credit trading
- Low impact development
- Toxics source reduction through take back programs and product bans
- Merging regulatory frameworks, such as coordination with air and water quality programs to reduce mercury deposition.

Mr. Logue put forth an intriguing idea to help integrate regulatory programs and provide more effective holistic solutions to ecosystem health restoration. He proposed development of a federal "Watershed Restoration and Protection Act" that would replace Clean Water Act, Safe Drinking Water Act, and Endangered Species Act and integrate their purposes and implementation to better allow for the creativity needed to address both water quality and broader environmental concerns in a coordinated fashion.

**LITIGATION AND REGULATION****Legal Overview**

Michael Campbell, partner in Stoel Rives' Resources, Development, and Environment Practice Group, provided an overview of recent legal decisions that have affected the ability to regulate activities under the CWA. As Mr. Campbell explains, CWA jurisdiction relies on the definition of "navigable waters" and "waters of the United States." EPA has taken an expansive view of the meaning of "waters of the United States" to include surface water bodies that can be used for interstate commerce, and wetlands adjacent to these waters. Historically, the US Supreme Court has upheld this broad definition of navigable waters, until the "SWANCC" decision in 2001 (*Solid Waste Agency of Northern Cook County v. United States Corps of Engineers*), when certain isolated wetlands (ponds) were ruled not to be waters of the United States.

Following the SWANCC decision, there was speculation that a broad range of waters that are not navigable in fact would no longer be regulated under the CWA. However, subsequent lower court decisions retained jurisdiction over most wetlands and most other waterbodies as long as they have a connection, or nexus, to navigable waters, even if they are not "navigable" in fact. Recent Supreme Court decisions in the combined cases of *Rapanos* and *Carabell* resulted in a split decision with Justice Kennedy's controlling opinion that the cases should be remanded to the lower courts to determine "whether the specific wetlands at issue possess a significant nexus with navigable waters" (see Bricker, *Insider* #395)

**Water Quality  
Issues****Oregon Wetlands****CWA  
Developments**

In his opinion, Justice Kennedy suggested a solution to litigating wetland nexus question on a case-by-case basis. He also invited the Army Corps of Engineers and EPA to define by rule what constitutes a significant nexus to traditionally navigable waters. Mr. Campbell speculated that adoption of such a rule by these agencies in the near future is unlikely. However, Congress is considering acting to clarify the intent of CWA coverage.

In Oregon, state wetland regulations do not exclude isolated wetlands, so this is not an issue on the state level.

Mr. Campbell went on to provide overviews of other recent legal and rulemaking decisions that have affected the scope of CWA administration.

RECENT CWA DEVELOPMENTS INCLUDE:

- EPA has proposed a “Water Transfer Rule” which would exempt NPDES permit requirements for water transfers that are not used for intervening uses and do not add pollutants. These discharges would still be subject to CWA Section 401 water quality certification to the extent that they require a federal permit.
- Courts continue to hold that stormwater point sources other than those included in Phase I and II stormwater regulations are not subject to NPDES permitting.
- In *NEDC v. Brown* (2007) the US District Court of Oregon relied on the EPA regulations that state a silviculture point source does not include non-point source activities such as road construction and maintenance to decide that stormwater runoff from forest roads does not require NPDES permitting.
- In 2005, the Ninth Circuit Court of Appeals found that a pesticide applied to water to kill non-native fish which does not leave a residue is not a pollutant, and therefore does not require an NPDES permit. EPA recently promulgated rules exempting certain pesticide applications from NPDES permitting provided they are applied according to FIFRA requirements.
- A 2006 US District Court order (*Northwest Environmental Advocates v. EPA*) held that EPA’s exemption of ship discharges from NPDES permitting is inconsistent with the CWA, and has vacated the exemption as of 30 September 2008. The EPA is currently considering how to address the court’s decision (see Brief, this *Insider*).

FOR MORE INFORMATION ON CWA DEVELOPMENTS AND OTHER WATER QUALITY ISSUES, CONTACT: Michael Campbell, Stoel Rives, 503/ 294-9657 or email: [mrcampbell@stoel.com](mailto:mrcampbell@stoel.com).

**Conservation Community Strategies**

Brent Foster, Executive Director of Columbia Riverkeeper, described his organization’s current priorities in the water quality arena. Columbia Riverkeeper has been a strong supporter of legislation aimed at banning mixing zones from Oregon water quality regulations. After a failed legislative effort to ban mixing zones last session, Columbia Riverkeepers and other conservation advocates are backing Senate Bill 737, which has morphed from an outright ban on some mixing zones to a currently proposed bill that will only affect municipalities. As currently proposed, the bill would require DEQ to study persistent bioaccumulative substances and prioritize chemicals of concern. DEQ would have to develop a plan for pollution reduction that would be used by municipal dischargers to develop individual pollution reduction plans.

Mr. Foster commented that this bill focuses on municipalities because conservation groups feel that industries “opted out” of negotiations on crafting a compromise bill. Mr. Foster stated that conservation groups may craft a ballot measure aimed at banning mixing zones for industries only, which could lead to a costly defense effort on the part of industry.

Columbia Riverkeepers and other environmental advocates have been active on the litigation front, including continuing to press for more rigorous municipal separate storm sewer system (MS4) permits. Mr. Foster contends that current MS4 permits developed by DEQ are inadequate because they fail to require dischargers to comply with water quality standards, and that some permits fail to comply with TMDLs for the Columbia Slough and the Tualatin River.

The Northwest Environmental Defense Center and Columbia Riverkeepers are also challenging general industrial stormwater permits (1200-Z and 1200-COLS) in court. These groups feel that DEQ did not adequately address terms in the original settlement agreement. They contend that the new permits (the new 1200-COLS is in effect, the 1200-Z will be effective 1 July 2007) are insufficient because they: do not require collection of sufficient data on industrial discharges; have benchmarks rather than water quality based effluent limits; fail to require compliance with technology based limits; and fail to control all known stormwater pollutants.

**Mixing Zones  
& SB 737****Another Bill?****MS4 Litigation****Industrial  
Permits  
Challenged**

**Water Quality  
Issues**

Mr. Foster also mentioned Willamette Riverkeeper lawsuit against the Blue Heron paper company because of failure to comply with the State standards for turbidity. This is a matter of some contention, because the current turbidity standard, based on percent increase, is outdated. Efforts to update the standard have stalled because of funding and technical issues.

Mr. Foster indicated that environmental advocates have several issues on the horizon that they are tracking for possible legal challenges.

**Possible  
Litigation**

POTENTIAL ENVIRONMENTAL GROUP ACTIONS AREAS INCLUDE:

- Opposition to drinking water fluoridation
- Challenging new DEQ water quality standards if approved by EPA
- Assuring protective fish consumption rates are used to develop water quality standards
- Halting changes to turbidity rules which lessen stringency
- Opposing liquefied natural gas terminals on the Columbia.

Columbia Riverkeepers has also been busy with stormwater pollution prevention demonstration projects at its offices and other facilities. Columbia Riverkeepers is willing to consider supporting other stormwater quality projects in the basin.

FOR MORE INFORMATION ON COLUMBIA RIVERKEEPERS ACTIVITIES, VOLUNTEER OPPORTUNITIES, OR DEMONSTRATION PROJECTS, CONTACT: Brent Foster, Columbia Riverkeeper Executive Director, 541/ 380-1334 or email: [brentfoster@ecoisp.com](mailto:brentfoster@ecoisp.com).

**TECHNICAL & POLICY SOLUTIONS****Stormwater Best Management Practices**

Eric Strecker of GeoSyntec discussed stormwater quality strategies and creative ways to improve water quality. Mr. Strecker emphasized that stormwater quality is not just about percent pollutant removal. Reducing runoff to mimic more natural systems is necessary to protect streams from erosion and habitat destruction. A more sustainable stormwater management strategy must include hydrological and pollutant source control. This can be achieved using a combination of onsite treatment, regional treatment and stream stabilization/function restoration, where most appropriate.

Damage to stream systems often occurs when development results in: tree/shrub canopy removal; removal or compaction of moisture absorbing soils; and creation of turf landscapes and impervious surfaces. Mr. Strecker cited Northwest studies that found that streams in watersheds that have as little as 5-to-10 percent impervious cover have significantly reduced coho salmon populations. Association of Clean Water Agencies (ACWA) stormwater data indicate that runoff from residential, commercial, transportation, and industrial frequently exceed water quality criteria for copper, zinc, and other metals, compared to runoff from undeveloped lands.

These urban runoff problems have led to lawsuits and regulations that focus on pollutant removal and a move toward "lower impact development." These efforts often include source controls, including use of more inert building materials (e.g., using coated steel instead of galvanized steel roofs). However, lower impact development must also reduce runoff quantity and mitigate high peak flows to ensure healthy streams.

The International Best Management Practices database — a project Mr. Strecker pioneered — provides a tool to gather and analyze stormwater BMP performance. Analysis of the database (now funded by the Water Environment Research Foundation and located at [www.bmpdatabase.org](http://www.bmpdatabase.org)) suggest that the best performing BMPs address: hydrologic source control to reduce the amount of runoff leaving a site as well as the amount of runoff actually treated; the actual final concentrations of pollutants in treated effluent (not just percent removal); and whether the BMP addresses downstream erosion impacts.

These findings are beginning to lead to design standards for non-point sources that target pollutants of concern based on 303(d) listings and TMDLs and provide hydrologic controls. The BMP database suggests a rigorous means of assessing the effectiveness of new design standards that include empirical data and modeling efforts. Mr. Strecker provided examples of how these criteria are being used to prioritize stormwater projects in Los Angeles County.

FOR MORE INFORMATION ON THE BMP DATABASE AND LOWER IMPACT DEVELOPMENT PERFORMANCE, CONTACT: Mr. Strecker, GeoSyntec, 503/ 222-9518 or email: [estrecker@geosyntec.com](mailto:estrecker@geosyntec.com).

**Appropriate  
Measures****Development  
Impacts****Urban Runoff****BMP Database****Assessing  
Effectiveness**

**Water Quality Issues**

**“Cap & Trade”**

**Generating Allowances**

**Advantages & Drawbacks**

**Water Quality Trading**

Bruce Aylward of Ecosystem Economics addressed an emerging tool in the water quality toolbox: water quality trading. Mr. Aylward described what it takes to create a successful water quality trading program. As we move from traditional command and control to market-based instruments “cap and trade” programs have proven to be effective means to reach pollutant reduction goals. A cap and trade program sets an aggregate, rather than individual, cap on pollution. Tradable allowances are generated in the form of individual shares of the aggregate cap. A system of marketable pollution allowances typically involves: some sort of scale or cap that determines the overall level of pollution (e.g., a TMDL); distribution of pollution allowances (Waste Load Allocation); and a market where dischargers can buy and sell the allowances. Some cap and trade programs also have a mitigation or offset program that slowly reduces the allocations. In some instances, third parties can create credits by doing projects that reduce overall loads and can sell these credits. Examples of current cap and trade programs include air pollution trading, exchange of surface water rights, and wetland mitigation banking, to name just a few.

Advantages of cap and trade systems include: creation of firm pollution load targets; reduced cost for pollution abatement; and market driven — rather than regulatory driven — price setting. Disadvantages include price uncertainty and complexity of administration. Successful programs require monitoring and enforcement to ensure compliance with the allocation limits to provide an incentive for dischargers to buy credits. Having a market intermediary can minimize transaction costs of trades and balance supply and demand. Long term policy stability is also required to make investment in credits worthwhile. Simplicity also assures that some progress will be made. Perfection should not be the enemy of “good enough.”

FOR MORE ON MARKET BASED RESOURCE TRADING PROGRAMS, CONTACT: Mr. Aylward, Ecosystem Economics, 541/ 318-8655 or email: [bruce@ecosystemX.com](mailto:bruce@ecosystemX.com).

**Stormwater Quality Trading on Portland**

Dan Vizzini, principle Financial Analyst at the City of Portland Bureau of Environmental Services, described efforts at the City to evaluate the feasibility of creating a stormwater marketplace within the City. Mr. Vizzini described the situation the City of Portland faces regarding stormwater. Between 80 and 100 billion gallons of precipitation falls within the City annually. The City has a history of over 100 years of urbanization that produces 20 billion gallons of urban runoff in five watersheds. The public systems consist of about 860 miles of combined sewer and 930 miles of separate stormsewer conveyances that are aging, complex, and still growing. The City has spent over \$1.4 billion in combined sewer system improvements, and yet increased development is anticipated to result in over 2 billion gallons of additional stormwater runoff by 2040.

The city recognizes that public investment in stormwater pollution controls is not sufficient to meet the conflicting goals of high density growth and runoff quality and quantity management. Private investment will have to make up the majority of future investments. With this backdrop in mind, the City has been studying the potential for a stormwater marketplace as a vehicle to encourage private stormwater management investment. The study has looked at the factors that make a marketplace approach feasible.

**STORMWATER MARKETPLACE FEASIBILITY FACTORS INCLUDE:**

- Price differential between traditional public financed solutions and private financing sufficient to support a marketplace
- Adequate supply and demand to create an efficient marketplace
- Enough “tools” (policy and regulation) available to “animate the market”

The City is currently looking at case studies and projecting market and base scenarios to evaluate the market through 2040. The first phase of the study should conclude this month. Additional phases of the study are anticipated to commence in July. Initial analyses have resulted in both encouraging signs and daunting concerns.

**STORMWATER MARKETPLACE ISSUES INCLUDE**

- Documenting the true costs of stormwater BMPs is difficult
- There is significant variation in documentation of performance and benefits of BMPs
- Focus on small target areas requires more information than is currently available
- Quantification must precede policy to move from conceptual models to actual marketplace
- Non-market issues such as permits, cost of time, transaction time, and ease of use are important factors
- Collaboration with larger market initiatives such as the Willamette Partnership is helpful

**Portland’s System**

**Feasibility Studied**

**Marketplace Issues**

**Water Quality  
Issues****Addressing  
Impacts****Existing  
Markets****Strategic  
Investment****Data Needs****Nanomaterials****Precautionary  
Principal**

Mr. Vizzini reported strong interest and support from regulators.

FOR MORE INFORMATION ON THE CITY OF PORTLAND'S STORMWATER MARKET FEASIBILITY STUDIES, CONTACT: Mr. Vizzini, Portland Bureau of Environmental Services, 503-823-7740, or email: danv@bes.ci.portland.or.us.

**The Willamette Partnership: Putting Water Quality Trading to Practice**

David Primozych, executive director of the Willamette Partnership described how his organization is putting theory into practice through a pilot trading program supported by EPA grant funds (see LaRocco/Vickerman, *Insider* #416/417). The Willamette Partnership program arose from recognition that currently, natural systems are being impacted by water quality impairments and current regulatory approaches are not effective at fixing natural systems.

Cooperative investment is needed to restore our ecosystems, and marketplace solutions have a proved track record driving investments toward ecological goals. Examples of successful market-based environmental trading programs include carbon emission trading (currently a \$30 billion market) and wetland banking (currently valued at about \$285 million). However, there is a lack of coordination amongst ecosystem trading markets. Integrated ecosystem markets could provide the additional incentive to invest in trading programs that go beyond compliance.

A successful ecosystem market place requires integrated and strategic investment in programs that will have the most benefit. The exchanges have to rely on a transparent and trusted accounting system that provides a fair system of exchange and addresses risk. Current barriers to such systems include: the inefficiencies of "one-off" trades that have high transaction costs; a lack of incentives for ecological investment; and non-standardized accounting for performance.

The Willamette Partnership is seeking to provide a means of exchange that will reduce these barriers. The Partnership is seeking pilot trades to demonstrate the viability of marketplace based whole ecosystem based trading. Under the EPA grant, they are obligated to facilitate their first trade by June 2008.

FOR MORE INFORMATION ON WILLAMETTE PARTNERSHIP TRADING OPPORTUNITIES, CONTACT: Mr. Primozych, Willamette Partnership Executive Director, 503/ 434-8033 or email: primozych@willamettepartnership.org.

**EMERGING CHALLENGES: TOXICS AND PERSONAL CARE PRODUCTS**

A panel discussion on reducing discharges of toxics and other emerging contaminants was moderated by Janet Gillaspie, Executive Director of ACWA and included perspectives from: Bill Renfroe of Kennedy/Jenks Consultants; Kevin Masterson of DEQ; Marly Lou Soscia from EPA Region X; Peter Ruffier from the City of Eugene Wastewater Division (see Article, this *Insider*); and Teresha Huntsinger of the Oregon Environmental Council.

Mr. Renfroe kicked off the discussions with a big picture overview of the issues. He set the stage with this basic ecosystem fact: the earth is a closed system so there is no "away" to which we can discard wastes. He also reminded us that all things are poison, only the dose matters. Risk is a function of toxicity and the exposure dose. An overarching problem is that the toxicity and safe exposure levels of many emerging contaminants is unknown. Of increasing concern are new "nanomaterials" (materials less than 100 nanometers in size) for which little exposure data exists.

Nanomaterials are now being produced for a variety of consumer purposes including: colorless zinc oxide sunburn lotion; food products, clothing; and sports equipment. Pharmaceuticals and personal care products are constantly being developed. However, there is little understanding of the fate of these products in the environment, and the products are largely unregulated. Mr. Renfroe stressed applying the precautionary principal for new products, regulating their use until their effects in the environment are fully understood. He recommends continuing to improve the state of the science in understanding the fate of products in the environment, such as continuing or expanding US Geologic Survey monitoring programs. To help reduce release of materials, he urges the development of more "take back" programs by manufacturers. New or optimized treatment systems are needed to remove these compounds from wastewater.

Mr. Renfroe suggests that we need to reduce uncertainty about emerging contaminants by increasing our knowledge of their behavior. Specifically, we need to improve and standardize analytical methods and develop human health and environmental criteria for these materials. We need to understand the fate, transport, toxicology and effects on humans and the environment so we can address concerns on a scientific basis.

**Water Quality  
Issues**

**Expanded  
Monitoring**

**Unknowns**

**DEQ  
Partnerships**

**Columbia River  
Efforts**

**Municipal  
Treatment Issues**

**Pretreatment**

**Innovations**

Kevin Masterson provided his opinion on how to meet the challenges of toxics and water quality. He stressed that a more comprehensive monitoring and data sharing program is needed to help focus reduction efforts. Monitoring will help answer fundamental questions about where the elevated toxics occur in Oregon waters and what the sources are. To that end, DEQ has proposed a monitoring program to legislature that would initially focus on the Willamette basin. Mr. Masterson also proposes to use the Pacific Northwest Data Exchange and other database tools to consolidate and exchange water quality information.

Mr. Masterson lamented that there is a lag in the science linking biological findings and chemical exposure. Analytical techniques continue to improve, which provide very low levels of detection for many compounds; however, the criteria for human and ecological health protection are not available. Moreover, synergistic and additive effects must be considered.

Mr. Masterson named a several categories of emerging contaminants of concern, including: endocrine disruptors such as hormones, pharmaceuticals, detergent metabolites, and plasticizers that have effects at very low concentrations; Polybrominated diphenyl ethers, which are persistent in the environment and are accumulating in tissues; and pyrethroid insecticides, which have been shown to exhibit high levels of toxicity. Other constituents of concern such as mercury and DDT pose particular difficulties to regulate because they are globally distributed and are legacy or naturally occurring chemicals already present in the environment.

DEQ reports some success with programs that are outside the traditional regulatory toolbox. DEQ's Pesticide Stewardship Partnerships is one example (see Masterson, *Insider* #416/417). This program has cooperatively developed pesticide application methods that have reduced drift and runoff that impacts stream water quality. It is Mr. Masterson's opinion that programs like this need to be applied in a targeted manner. Such efforts should focus on geographic or source specific reduction in locations where toxic impacts are known and where state and local actions can effect measurable reductions. Broad "upstream" source reduction policies are needed to keep materials out of the ecosystem in the first place. Such policies should target constituents that are ubiquitous in the environment and not associated with point sources and for emerging contaminants that have unknown effects.

Mary Lou Soscia, EPA Oregon Office, discussed EPA's Columbia River Toxic Reduction Strategy. EPA has a long history working to solve Columbia River water quality problems, including completing dioxins and dissolved gas TMDLs, including the Lower Columbia in the National Estuary Program, and participating in Superfund cleanups at Hanford and in the Lower Willamette River. EPA has also been involved with fish consumption studies and contaminant surveys.

EPA recently made the Columbia River a National Priority, with goals to, by 2011, protect, enhance, or restore 13,000 acres of wetland and 3,000 acres of upland habitat in the lower Columbia basin; cleanup 150 acres of contaminated sediments; and demonstrate a 10 percent reduction in mean contaminants of concern in water and fish tissue.

OTHER EPA ACTIONS INCLUDE:

- Providing a "State of the River" report to tell the Columbia River story
- Conducting monitoring above Bonneville dam to add to the body of water and sediment quality data on the river
- Implementing TMDLs in tributary basins
- Continuing legacy pesticide collection programs

Ms. Soscia noted that about 800 pounds of DDT are collected under the latter program in the Pudding River basin alone.

Peter Ruffier discussed the role of pretreatment programs in addressing toxics and emerging contaminants (see Article, this *Insider*). Municipalities have a limited set of tools to address pollutant sources: local ordinances and pretreatment programs, technical assistance, and business and consumer outreach.

Examples of pretreatment programs/ordinances include: requiring pollution management plans for photoprocessors and restaurants; toxicity testing of high technology industries; and requiring erosion control best management practices.

Technical assistance includes: monitoring and evaluation programs for mercury and working with the Oregon Dental Association to reduce discharges from amalgams; supporting a drug take back program; and outreach on fats, oil, and grease and stormwater pollution prevention.

Business and consumer innovations include public education programs on car washing, fertilizer application, and paint waste disposal practices. Eugene also offers Green Business certifications and hazardous materials collections, including mercury thermometers.

**Water Quality  
Issues****OEC Programs****Improving  
Understanding**

Teresa Huntsinger described some of the efforts of the Oregon Environmental Council (OEC) is making to reduce toxics on Oregon's rivers. OEC, founded in 1968, is a non-partisan organization that seeks collaborative solutions to environmental problems throughout Oregon. [OEC's website and a link to their newsletter can be found at [www.oconline.org](http://www.oconline.org).]

OEC has published guidance for citizens seeking to reduce their impact on the environment, including "50 Ways to Love Your River" and "Tiny Footprints." OEC also certifies environmental stewardship of landscape and childcare providers. One novel OEC project involves testing 10 representative Oregonians for the presence of key toxic chemicals, including PCBs, mercury, pesticides, and other persistent bioaccumulative substances. The results of the testing are likely to evoke additional public awareness of how ubiquitous of these compounds in the environment and lead for further demands by the public for a cleaner environment.

The general consensus of the panel was that we need to improve our understanding of the types and behavior of emerging contaminants that are currently making their way into the environment. Until such time, releases to the environment should be carefully controlled, preferably at the source. This will require educating the public about their individual impacts, and providing consumers with the tools to evaluate the true environmental cost of the products we buy.

FOR MORE INFORMATION ON EMERGING CONTAMINANTS OF CONCERN, PANEL CONTACT INFORMATION IS PROVIDED BELOW:

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Mary Lou Soscia, EPA Oregon Office, 503-326-5873 or email: [soscia.marylou@epa.gov](mailto:soscia.marylou@epa.gov)

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Teresa Huntsinger, Oregon Environmental Council, 503/ 222-1963 x112 or email: [teresah@ecoonline.org](mailto:teresah@ecoonline.org)

FOR ADDITIONAL INFORMATION, CONTACT: Gregg Bryden, Kennedy/Jenks Consultants, 503/ 295-4911 or email: [GreggBryden@KennedyJenks.com](mailto:GreggBryden@KennedyJenks.com)

Mr. Bryden manages water quality projects for Kennedy/Jenks Consultants. He is currently working on permitting a new outfall on the Umpqua River for the City of Reedsport.

**Wetlands  
Guidance****Joint  
Guidance****"Significant  
Nexus"****CORPS/EPA WETLANDS POLICY**

POST-RAPANOS GUIDANCE ISSUED FOR WETLANDS DETERMINATIONS

by Richard Glick, Davis Wright Tremaine LLP (Portland)

■ One year after a fractured US Supreme Court decided *Rapanos v. United States* [126 S. Ct. 2208 (2006) (consolidated with *Carabell v. United States*)] the US Army Corps of Engineers (Corps) and the US Environmental Protection Agency (EPA) have issued a joint guidance memorandum for making wetlands jurisdictional determinations (see "*Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in Rapanos v. United States & Carabell v. United States*" (June 5, 2007; hereafter referred to as "Jurisdiction Memo")).

In summary, the agencies will assert jurisdiction over "traditional navigable waters" and will analyze on a case-by-case basis other wetlands for their "significant nexus" to traditional navigable waters before asserting jurisdiction. The guidance will be in effect for six months to allow public input as to whether to conduct a formal rulemaking and what form the rules should take. The two agencies also issued a memorandum of agreement as to coordination of their post-Rapanos assessments (see "Memorandum for Director of Civil Works and US EPA Regional Administrators" (June 5, 2007)).

**Wetlands  
Guidance**

**Rapanos Ruling**

In the Rapanos case, land owners challenged the jurisdiction of the Corps under section 404 of the Clean Water Act over wetlands that were located several miles from a “navigable” waterway and thus, it was argued, did not constitute “waters of the United States” subject to regulation. The Supreme Court split 5-4 and issued five separate opinions (see Bicker, *Insider* #395). Five justices voted to vacate the decisions of the court below, holding that the record was not sufficiently developed to determine whether the wetlands at issue are jurisdictional. However, a plurality of the Court, led by Justice Scalia, held that wetlands must be of a semi-permanent nature and abut open water to qualify as jurisdictional. This is a test that many wetlands, previously thought to be jurisdictional, would fail to meet.

**SWANCC**

However, in his concurring opinion, Justice Kennedy focused on how the subject wetlands serve the Clean Water Act’s primary objective “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” 33 USC § 1251(a). Citing a previous Supreme Court ruling that there must be a “significant nexus” between the wetlands and a navigable water (*Solid Waste Agency of Northern Cook County v. United States Corps of Engineers*, 531 US 159 (2001)), Justice Kennedy would examine whether there is “a reasonable inference of ecological connection” between the wetlands and navigable waters.

**Ruling  
Application**

In trying to make sense of these competing viewpoints, the Corps and EPA cited the case of *Marks v. U. S.*, which holds that when the Court is divided, “the holding of the Court may be viewed as that position taken by those Members who concurred in the judgments on the narrowest grounds.” 430 US 188, 193 (1977). Applying the Marks case, the agencies conclude: “Thus, regulatory jurisdiction under the CWA exists over a water body if either the plurality’s or Justice Kennedy’s standard is satisfied.” [Jurisdiction Memo at 3]

**Wetlands  
Differentiation**

Under the Jurisdiction Memo, the agencies differentiate between wetlands that meet the Scalia plurality test and the Kennedy test. They will continue to assert jurisdiction over “traditional navigable waters” — which were previously defined in regulations as “[a]ll waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide.” 33 C.F.R. § 328.3(a)(1), 40 C.F.R. § 230.3(s)(1). Jurisdiction would also be asserted over “adjacent” wetlands, defined as “bordering, contiguous or neighboring.” Jurisdiction Memo at 5. The same is true for relatively permanent non-navigable tributaries of traditional navigable waters and adjacent wetlands with a continuous surface connection to the tributaries. All of these meet the Scalia test and require little analysis.

**Considerations**

The Corps and EPA will exercise judgment with respect to less obvious wetlands to determine whether there is a “significant nexus” to navigable waters, as Justice Kennedy would require. Thus, ephemeral tributaries or intermittent streams that do not typically flow year round would not meet the Scalia test, but may be jurisdictional under the significant nexus standard. The agencies will assess the flow characteristics and ecological functions of the tributaries and adjacent wetlands to see if they “significantly affect the chemical, physical and biological integrity of downstream traditional navigable waters.” *Id* at 7. Swales, gullies, washes and other features caused by erosion, as well as ditches, would not usually be subject to jurisdiction.

In analyzing for a significant nexus, the agencies will consider a range of hydrologic and ecologic factors. Hydrologic factors include the volume, duration and frequency of flow; proximity to a navigable water; the size of the watershed and average annual precipitation. Ecologic factors include the potential for tributaries to carry pollutants to navigable waters and the ability of adjacent wetlands to trap and filter such pollutants; wildlife habitat provided by the wetlands; and flood storage capability. The Corps and EPA will coordinate their assessments to make timely jurisdictional determinations and document their rationale for the record.

**Conclusion**

**Direct  
Relationship**

In conclusion, the main difference after *Rapanos* is the insistence of a direct relationship between the wetland in question and a traditional navigable water. The Corps and EPA will evaluate non-traditional navigable waters and wetlands on a case-by-case basis to discern whether a significant nexus exists. The time frames they have announced for making such jurisdictional determinations are ambitious and will prove challenging to implement. As the guidance documents described here do not have the force and effect of law, formal rules will still be needed.

**FOR ADDITIONAL INFORMATION:** Rick Glick, Davis Wright Tremaine LLP, 503/778-5210 or email: rick-glick@DWT.com

EPA WEBSITE: Copies of the guidance memoranda may be found at [www.epa.gov/owow/wetlands/guidance/CWAwaters.html](http://www.epa.gov/owow/wetlands/guidance/CWAwaters.html)

**Wastewater  
Treatment****TOXICS AND EMERGING CONTAMINANTS OF CONCERN**

MUNICIPALITIES PURSUE INNOVATIVE PRETREATMENT

by Peter Ruffier, City of Eugene Wastewater Division

**Focus Shift**

As water pollution control facilities get increasingly more efficient at controlling and reducing the discharge of conventional pollutants to the state's waterways, the focus is shifting to the **persistent bioaccumulative toxics (PBTs)**.

**Facility  
Design**

Wastewater treatment facilities serving the state's communities were designed, built, and have been upgraded under the auspices of the federal Clean Water Act, as administered by the Oregon Department of Environmental Quality (DEQ). These facilities are, for the most part, designed and operated to treat for biodegradable organics and solids. They are generally not efficient at removing the small and oft times variable concentrations of toxic substances present in typical municipal wastewaters. For this reason municipalities have had to explore expanded and innovative options for toxics control that go beyond the traditional direct treatment approach. The techniques that are being used for toxics control can be categorized into three areas: command and control; technical assistance; and business and consumer innovations — all discussed below.

**New Techniques****Introduction****Command and Control****Local  
Assessments**

Historically, cities have addressed the control of toxics through the development and implementation of pretreatment regulations, a federally mandated program for municipalities that requires limits on pollutants discharged to a public wastewater system by industrial or commercial users of the system. These limits are established both from national studies and at the community level. Across Oregon, wastewater treatment agencies conduct local assessments.

THESE LOCAL ASSESSMENTS INCLUDE:

- studying the presence of toxic substances
- evaluating safety issues related to sewer systems and workers
- evaluating how toxic substances might pass through a treatment process to the environment
- evaluating how toxic substances might damage wastewater infrastructure including pumps and pipes, concentrate in biosolids, or interfere with wastewater treatment processes,

**Pretreatment**

These local assessments inform the setting of appropriate discharge limits for businesses and industries discharging to sewers. Limits may often be met by industrial or commercial sources through: product substitution; recycle of materials; pretreatment of wastewater; or implementation of best management practices.

**Broadening  
Approach**

Pretreatment was initially very effective at reducing toxics. Pretreatment was especially effective at keeping metals from interfering with treatment processes or passing through to the receiving stream. However, accomplishing further reductions has become much more costly. With the attention now being given to additional pollutants of concern, a broader approach is becoming increasingly necessary.

**Pretreatment  
Permits**

The Metropolitan Wastewater Management Commission (MWMC), which provides wastewater treatment services to the cities of Eugene and Springfield, includes in its service area 35 businesses and industries that are regulated under a specific pretreatment permit. These permits include limits on the discharge of pollutants specific to the type of industry or commercial operation being regulated, along with self-monitoring and reporting requirements. In addition, the Eugene and Springfield City staff conduct annual or twice-a-year inspections and random monitoring to confirm compliance with permit requirements. To ensure that water quality standards were being met, these permittees collectively received 70 inspections in 2006 and over 2700 compliance water quality tests performed for 11 different metals, 141 different organic constituents, nutrients, pH, and oil and grease.

**Management  
& Testing**

In a further effort to control toxics using the pretreatment program the MWMC has also established pollution management plans that are required for photo processors to control silver, and instituted a toxicity testing program for wastewater discharges from a high-tech industry.

### Technical Assistance

#### *Wastewater Treatment*

Command and control approaches may work well in situations where there is a specific toxicant to be controlled, or where the toxic substance is used or produced in an industrial process that can be modified or treated prior to discharge to the sewer system. It is not the best approach to use where regulatory authority is unclear or when the sources of toxics are diverse and related to consumer behaviors.

#### *ACWA Efforts*

Public wastewater agencies have taken a leadership role in these situations by providing technical expertise and data to help inform legislators and decision-makers about effective toxics control measures. For example, the Oregon Association of Clean Water Agencies (ACWA), the professional organization of Oregon's wastewater and stormwater utilities has a number of activities addressing these issue.

ACWA ACTIVITIES INCLUDE:

#### *PBT Reduction*

- **ADDRESSING TOXICS:** Working with partners at the Oregon Legislature to develop a persistent bioaccumulative toxics monitoring, assessment, and control program to be administered by DEQ and ultimately implemented through PBT reduction plans by municipalities. This program is outlined in SB 737, currently pending in the 2007 Oregon Legislature.

#### *Mercury*

- **MERCURY CONTROL:** Working with the Oregon Dental Association (ODA) to develop best management practices for the control of mercury in wastewaters from dental offices and clinics. This has resulted in guidance that can be used by dentists for mercury control, and is being implemented state-wide through the cooperative efforts of the ODA and municipalities. A very successful program to collect mercury-containing wastes at the annual ODA convention has collected hundreds of pounds of mercury wastes in the past few years.

#### *Drug Take-Back*

- **DRUG TAKE-BACK PROGRAM:** Working with DEQ, the Oregon Water Utilities Council and others to outline how a state-wide drug-take back program might work in Oregon to safely and properly collect and dispose of unused or unwanted medicines (see Gillaspie, *Insider* #408/409). It is currently common practice to dispose of these drugs in the toilet, where they can pass through treatment plants unaltered and may have adverse effects of fish and other aquatic life.

### Business and Consumer Innovations

#### *Education*

The pace of development and distribution of drugs, personal care products, cleaning agents, and other consumer items is increasing much faster than the ability and time necessary to fully evaluate the effects of these products on the environment. As a result, municipal wastewater agencies are having to help educate businesses and consumers about the proper use and disposal of products containing toxic materials, or to interdict the disposal of these products before they get introduced into the wastewater system.

#### *P2 Programs*

FOR EXAMPLE, WASTEWATER AGENCIES HAVE:

#### *Waste Collection*

- Established Pollution Prevention (P2) programs to educate the public on methods for the proper disposal of paint wastes and lawn care chemicals.
- Cooperated in the set up and funding of household hazardous materials collection activities, including mercury-containing thermometer exchange programs, and the collection of dental amalgams and other mercury containing wastes.
- Developed "green" business certification programs to communicate and promote the use of environmentally friendly business practices. Programs are now being implemented for automotive repair shops, lube and oil businesses, restaurants, dental offices and clinics, and landscape maintenance businesses.

#### *"Green" Certification*

### Conclusion

Direct treatment of PBTs in municipal wastewater treatment plants is not very feasible or cost-effective as a toxics control option. As a result, municipalities are using a variety of methods, ranging from command and control procedures, technical assistance, and business and consumer innovations, to prevent toxics from reaching the state's waterways.

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**DEQ-Related  
Legislation****DEQ LEGISLATIVE UPDATE**

Edited/reformatted from Oregon Department of Environmental Quality document

**Introduction**

On Friday, June 22, 2007 Oregon Department of Environmental Quality (DEQ) Director Stephanie Hallock and DEQ Legislative Liaison Greg Aldrich reported to the Oregon Environmental Quality Commission (EQC) with an update on bills before the Oregon Legislature with bearing on DEQ operations. What follows was extracted from their report.

**DEQ Budget Bills****DEQ Budget**

DEQ APPROPRIATIONS BILL — House Bill 5022 is the main DEQ budget bill that includes the base budget as well as all the budget policy packages that are not supported by fee bills.

Status on 6/22/07: Passed the House and Senate; awaiting Governor's signature

**Fees**

DEQ FEE RATIFICATION BILL — House Bill 5023 provides approval for the Water Quality permitting and Air Quality Oregon Low Emission Vehicle fees passed by the EQC since 2005 legislative session.

Status on 6/22/07: Passed the House and Senate; awaiting Governor's signature

**Bills Related to the Air Quality Program****Title V**

TITLE V FEES — Senate Bill 107 increases fees for major industrial permittees to equal the cost of the permitting program as required by federal law. While an existing statute allows annual adjustments to the fee based on changes in the Consumer Price Index, this bill is needed to align the fee to current costs. About two weeks before the first hearing, industry's "no position" on the proposed 24% fee increase changed to opposition. Industry was interested in concessions on both the fees and regulations that exceed federal requirements. Negotiations between stakeholders and DEQ resulted in a fee table that spreads the increase over three years (approximately 8% per year) and increased disclosure requirements when adopting a rule that affects Title V sources and is more stringent than federal requirements. The increased disclosure includes a description of alternatives considered and the reasons the alternatives were rejected, and groups affected by the rule can request a hearing directly in front of the EQC.

Status: Governor signed 6/20/07

**Diesel Programs**

CLEAN DIESEL — House Bill 2172 provides grants, loans and tax credits to retrofit, rebuild or replace older diesel engines and to reduce diesel idling. Incentives will be available for operators of all types of diesel engines, including trucking and construction companies, agricultural operations, municipalities, school districts, marine operators and railroads. This bill has broad support and no known opposition. This is currently proposed for funding with \$1,150,000 in General Fund, \$1,500,000 in Federal Funds and \$500,000 federal transportation funds.

Status on 6/22/07: Passed the House; under consideration in the Senate

**Wood Stoves****Open Burning**

HEAT SMART FOR CLEAN AIR — Senate Bill 338 provides funding to help homeowners replace old uncertified wood stoves with cleaner options and includes a requirement for removal of uncertified wood stoves upon sale of the home. The bill would fund the grant program by redirecting Asbestos and Open Burning penalties from the General Fund to the grant fund. The Associated Oregon Industries originally strongly opposed this funding mechanism, but we have negotiated a workable solution with them that preserves the funding. While the cost of the grant program was not included in the Governor's Recommended Budget or the Ways and Means Co-chairs Budget, it appears that funding may be restored.

Status on 6/22/07: Under consideration in the Ways and Means Natural Resources Subcommittee

LOW EMISSION VEHICLE REGISTRATION — House Bill 2272 would require proof of compliance with California emission standard when a new vehicle is registered in Oregon. It will protect Oregon consumers from unknowingly purchasing a noncompliant vehicle and Oregon dealers from unfair competition by violators. This approach is used by nearly all of the states that have adopted California's vehicle emission standards. It passed both chambers with strong supporting votes.

Status: Governor signed 6/12/07

***DEQ-Related  
Legislation***

***Ag Regulation***

AGRICULTURE AIR QUALITY — Senate Bill 235 introduced jointly by DEQ and the Oregon Department of Agriculture (ODA), would allow regulation of agriculture to the extent necessary to comply with the federal Clean Air Act. It would designate ODA as the lead implementing agency, and would authorize ODA to conduct research on best management practices to reduce emissions from agricultural operations. Environmental groups were not satisfied with the bill and were successful having their amendment passed by the Senate Environment and Natural Resources Committee. This amendment has a significant fiscal impact on DEQ and ODA as it would require setting ammonia and hydrogen sulfide standards. The agriculture industry is equally determined to undo the amendment. DEQ, ODA and the Governor's Office are working to develop a compromise amendment that could pass both chambers.  
Status on 6/22/07: Under consideration in the Ways and Means Natural Resources Subcommittee; several public work sessions have been held

**Bills Related to the Land Quality Program**

***HazWaste***

***USTs***

***Marine Spills***

***Heating Tanks***

LAND QUALITY FEE BILLS — Senate Bills 103, 104, 105 and 106: Four DEQ / Land Quality fee-related bills passed. SB 103 helps maintain adequate funding for DEQ hazardous waste work by increasing hazardous waste generator fees. SB 104 maintains adequate funding for DEQ underground storage tank (UST) work by increasing annual UST permit fees. The bill also makes permanent the pilot optional field ticket enforcement procedure. SB 105 maintains adequate funding for DEQ work related to marine spill prevention and also expands spill prevention planning requirements to liquefied natural gas (LNG) vessels and facilities. SB 106 provides funding to pay for auditing heating oil tank (HOT) decommissioning and cleanup work by increasing the fee charged for filing HOT contractor reports.  
Status: Senate Bills 103, 104, 105 and 106 have all been signed by the Governor

***E-Waste***

ELECTRONIC WASTE — House Bill 2626: Three comprehensive electronic waste management bills were introduced (HB 2395 by a legislative interim committee, HB 2626 by Representatives Dingfelder and Bruun, and SB 541 by Senator Morse). The three bills focused on the recycling of personal computers, monitors, lap tops and televisions through a system managed or financed by product manufacturers. The House Committee on Energy and the Environment Committee Chair Dingfelder formed a work group of interested parties including DEQ to reach consensus on bill language using HB 2626 as the vehicle. This bill was unanimously passed by both chambers.  
Status: Signed by the Governor 6/7/07

***Bottle Deposits***

BOTTLE BILL CHANGES — Senate Bill 707: There were at least three bills introduced addressing Oregon's Bottle Bill. They ranged from adding water bottles to the existing statute to an expansion of the Bottle Bill to include all beverages other than milk, raise the deposit to 13 cents with a refund of 10 cents, capture the unredeemed deposits and establish redemption centers as an alternative to returning containers to stores. SB 707 was the successful bill that includes adding a deposit on water bottles and setting up an interim committee to consider: future increases to the bottle deposit; expanding to other types of beverage containers; and consideration of redemption alternatives such as special redemption centers.  
Status: Signed by the Governor 6/7/07

***Invasive Species  
Study***

BALLAST WATER BILL — Senate Bill 643 creates the Shipping Transport of Aquatic Invasive Species Task Force to study and make recommendations for combating the introduction of aquatic non-indigenous species associated with shipping-related transport into the waters of the state. The DEQ director is authorized to appoint members of the task force and Portland State University staff may provide staff support or coordination support. In conjunction with this bill, one full time employee position (FTE) has been added to the Land Quality budget to support ballast water reporting and regulation efforts.  
Status on 6/22/07: Passed the House and Senate; awaiting Governor's signature

**Bills Related to the Water Quality Program**

***UIC Primacy***

UNDERGROUND INJECTION CONTROL (UIC) — House Bill 2118 is the result of joint stakeholder and DEQ efforts to secure statutory authority to establish fees to keep this program at DEQ. Last year DEQ initiated the process to return program primacy to EPA due to affordability issues (see Light, *Insider* #395). Stakeholders asked EQC to reconsider this action and as a result EQC asked that stakeholders and DEQ work to seek funding support during the 2007 Session.  
Status: Signed by the Governor 6/5/07

**DEQ-Related  
Legislation****PBT  
Control Methods**

WQ TOXICS REDUCTION — *This is a non-DEQ sponsored bill* — Senate Bill 737 is an agreement by municipalities to start reducing persistent bioaccumulative toxic pollutants (PBTs) through pollution prevention and toxics reduction by 2011. Statewide this bill effects 52 large wastewater treatment plants. It requires DEQ to develop a list of priority PBTs that pose a threat to waters, human health, wildlife and aquatic life by June 2009. By June 2010, DEQ must submit a report to the Legislature on the priority list of PBTs that includes identification of point, nonpoint and legacy sources of priority PBTs “from existing data” and source reduction and control methods that can reduce PBT discharges. By June 2011, the largest wastewater treatment plants statewide must submit to DEQ a plan for reducing their discharges of priority listed PBTs. Their plans can include (but are not limited to): collection of legacy pesticides; reducing mercury amalgam in dental offices; working with businesses to reduce PBT use and discharge; recycling fluorescent lamps; and similar efforts. This work will be funded by a municipal surcharge to fund the first two years of the program (beginning in July 2008). DEQ would hire appropriate staff as soon as possible after that, but program would probably not start until fall of 2008. There is ongoing work associated with this bill including the review of the reduction plans for the priority PBTs and incorporating those plans into permits.

To ensure that DEQ will be able to meet the deadlines set out in the bill, provide for public input into the process, and develop necessary guidance for permittees affected by this bill, DEQ will need two “Natural Resource Specialist 4” limited duration positions that will be funded by the surcharge. After DEQ submits its report to the Legislature by June 1, 2010, the positions funded by the surcharge will be eliminated. Beginning in June 2009, DEQ will need a permanent position to conduct the ongoing work for this new program. DEQ will need to request general funds for this position and associated Attorney General costs in the 2009 Legislative Session.

Status on 6/22/07: Forwarded to Senate from the Ways and Means Committee with a Do Pass recommendation (as amended)

**Environmental Enhancement Tax Credit Proposal****Tax Credit  
Proposal**

ENVIRONMENTAL ENHANCEMENT — *This is a non-DEQ sponsored bill* — HB 3500 provides an Environmental Enhancement Tax Credit for investments that provide substantial environmental benefits to Oregon under one of the following categories: base (required) and nonpoint source pollution controls; environmental enhancements; Environmental Management Systems (EMS); and environmental improvement processes successfully implementing an EMS project. The annual limitations are \$10 million for the program and \$5 million cap for a project with priority to environmental enhancements.

Status on 6/22/07: Referred to Ways and Means Committee. However, at this time, Ways and Means is closed and HB 3500 has not reappeared nor has it been found incorporated into any other bill.

**For Additional Information, Contact:** Greg Aldrich, DEQ Government Relations, 503/ 229-6345 or email: [aldrich.greg@deq.state.or.us](mailto:aldrich.greg@deq.state.or.us)

LEGISLATION WEBSITE: The status of bills before the Oregon Legislature may be checked online at: [www.leg.state.or.us/searchmeas.html](http://www.leg.state.or.us/searchmeas.html)

**Land Use  
Regulation****Task Force****Progress  
Report****Findings****Public  
Engagement****OREGON LAND USE PLANNING**

TASK FORCE ISSUES PRELIMINARY FINDINGS; PLANS FOR INCREASED PUBLIC OUTREACH

Edited/condensed from Oregon Task Force on Land Use Planning documents

■ The Oregon Task Force on Land Use Planning (also known as the Big Look Task Force) was created by Senate Bill 82 (2005). The Task Force is charged with conducting a comprehensive review of the Oregon Statewide Planning Program and make recommendations for any needed changes to land-use policy to the 2009 Legislature.

The Task Force has been meeting monthly since March 2006. In this time, it has heard testimony from experts from around Oregon, prepared a work program, completed extensive research, and began to create findings from this work. A draft version of the Task Force's second progress report is available at their website: [www.oregonbiglook.org/](http://www.oregonbiglook.org/) [follow: Task Force Meetings >> June 18-19, Bend]

The Draft Progress Report includes a list of preliminary findings and announces the Task Forces intention to begin engaging "the public in a meaningful and comprehensive dialog that builds on our initial findings related to the state's land use program. As one of the first steps of this public outreach, each member of the Task Force will be meeting one-on-one with key organizations throughout the state, and will participate in activities designed to spark the attention of the general public and organizations interested in our subject." These activities are set to begin in July, 2007 — though no specific dates were available before we went to print. The next meeting of the Task Force is set for July 16 in Lake Oswego, though specific time and place were likewise unavailable.

**Task Force Preliminary Findings**

The research completed by the Task Force's six working groups has been synthesized and integrated compiled, and several common themes are emerging, including:

- Oregon's land use system has protected and promoted the agriculture and forest economies.
- Oregon has contained urban sprawl and managed growth better than most other states while preserving wilderness areas, open spaces, and scenic vistas.
- Oregonians are generally pleased that we have a land use planning system to accommodate future growth, but they also believe strongly in private property rights.
- Oregon's land use program, including the DLCDC [Department of Land Conservation and Development], has evolved almost solely into a regulatory function with little ... role in supporting local and state land use planning and strategic planning. The Task Force has found a lack of coordination between Oregon's land use planning and its economic development and conservation initiatives.
- The land use program has become a complex morass of amendments, administrative rules, and specific exceptions; it does not have the flexibility needed to respond to a changing Oregon. The 'one size fits all' approach of the land use program has become incompatible with our state's diverse landscapes and economies.
- Future population and employment growth will significantly stress the ability to preserve prime agricultural and forest lands in seven of the state's counties – Clackamas, Multnomah, Washington, Marion, Deschutes, Jackson and Lane will experience the greatest impacts. Growth in the other 29 counties is not expected to place significant burdens on resource lands; i.e., growth can be accommodated within UGBs [Urban Growth Boundaries].
- The state will likely be challenged to accommodate this growth in terms of financing infrastructure, providing transportation, water, and preserving critical environmental resources.
- Many of the 19 state land use goals do not fit the standard definition of "goals"; rather, they are really tactics and tools to implement a few broader and understandable goals (e.g., a healthy environment or a prosperous economy).
- There are lessons to be learned from other states' land use planning approaching; some are doing a better job at accommodating growth, preserving environmental resources and growing economies; and are doing so more efficiently and effectively, and in some cases, without regulation.

**Next Steps (July 2007 through May 2008)**

The Task Force will continue meeting as a group on a monthly basis, and each member will be working to help raise awareness and gather input on the findings described above. In addition to the public monthly meetings and user-friendly website, the work by the Task Force will become increasingly more public between July 2007 and the spring of 2008.

**Land Use  
Regulation****Upcoming  
Activities**

A detailed public engagement program for Task Force work is provided in chapter VI of the Draft Report. Over the next year, the Task Force will be having meetings and discussions with interested parties, citizens and experts throughout every region of the state, to work towards evaluating new ideas, and anticipate being involved in the following specific activities:

- Fundraising (July 2007/March 2008)
- Attending stakeholder group meetings, et al (July 2007/May 2008)
- Kickoff with 15-30 targeted stakeholder meetings (July/August 2007)
- Reviewing input with Task Force (September 2007)
- Beginning a larger statewide public engagement program (November/February 2008)
- Synthesizing and summarizing input/refining recommendations (February/March 2008)
- Testing refined recommendations with stakeholders (March/April 2008)
- Preparing finished products (May 2008)

**FOR ADDITIONAL INFORMATION, CONTACT:** The Oregon Task Force on Land Use Planning is assisted in its work by four staff members at the Oregon Department of Land Conservation and Development.

THEY ARE:

Becky Steckler, Statewide Land Use Review Project Manager. She can be reached at 503-373-0050 x286, or via email at: [becky.steckler@state.or.us](mailto:becky.steckler@state.or.us).

Thomas Hogue, Statewide Economic Development Review Project Manager. He can be reached at 503-373-0050 x323 or via email at: [Thomas.Hogue@state.or.us](mailto:Thomas.Hogue@state.or.us)

Jody Haury, Administrative Support Specialist. She can be reached at 503-373-0050 x230, or via email at: [jody.d.haury@state.or.us](mailto:jody.d.haury@state.or.us).

Tracy Nelson, Administrative Support Specialist. She can be reached at 503-373-0050 x242, or via email at: [tracy.nelson@state.or.us](mailto:tracy.nelson@state.or.us).

TASK FORCE WEBSITE: [www.oregonbiglook.org/](http://www.oregonbiglook.org/)

**OREGON LAND USE REGULATION & PROPERTY VALUE**

OSU REPORT INFORMS TASK FORCE PROCESS

Excerpts from Oregon State University Extension Service Report

**Editor's Note:** What follows are excerpts from the "Executive Summary" and "Conclusions" sections of "How Have Land-use Regulations Affected Property Values in Oregon?" Special Report 1077 (June 2007), William K. Jaeger and Andrew J. Plantinga, authors. The 94-page document is available from the Oregon Task Force on Land Use Planning website: [www.oregonbiglook.org/](http://www.oregonbiglook.org/) [follow: Task Force Meetings >> June 18-19, Bend]

**From the "Executive Summary"**

This study examines the ways in which land-use regulations in general and Oregon's land-use planning system in particular may affect property values. The study is focused on Oregon, but it is framed within the broader context of research in economics. Our analysis of Oregon land value data finds no evidence of a generalized reduction in value caused by Oregon's land-use regulations, a result that is consistent with economic theory and with other research in the economics field.

Economists recognize three potential effects of land-use regulations on land values: restriction effects, amenity effects, and scarcity effects. The first effect likely will be negative for restricted properties, but in many cases amenity and/or scarcity effects have a positive and potentially offsetting effect. As a result, and despite the widespread belief that most land-use regulations have negative effects on property values, the opposite may be true in many cases.

**OSU Analysis****"No Evidence"  
of  
"Generalized  
Reduction"**

**Land Use Regulation**

**Data Used**

We collected data on samples of parcels indicating the levels and trends of land values in parts of Oregon over the past 40 years—beginning before Oregon’s land-use planning system was in place. By comparing land value patterns for regulated lands with those for unregulated lands, and by comparing patterns in Oregon with patterns for similar areas in Washington State (where land-use planning has only recently been enforced), we scrutinized the ways in which Oregon’s land-use planning system has affected property values. The analysis was based on land value data for a sample of parcels in five counties, three in Oregon (Lane, Jackson, and Baker) and two in Washington (Lewis and Kittitas). The data are for intervals between the mid-1960s or early 1970s (before the implementation of Oregon’s land-use planning system) until the early 2000s.

**Findings**

THE RESULTS OF THIS ANALYSIS INDICATE THAT:

- Land values (adjusted for inflation) have generally risen since the introduction of Oregon’s land-use planning system in 1973, both for rural lands zoned for farm and forest use and for developable lands both inside and outside of urban growth boundaries (UGBs).
- Since 1973, when Oregon’s land-use planning system was adopted, the rate of change in land values in Oregon has been about the same as for similar lands in Washington.
- The data indicate that over the past 40 years, lands with the most stringent development limits (e.g., those with exclusive farm or forest use zoning) have increased in value at about the same rate as lands without such restrictions.
- The value of lands outside the Eugene urban growth boundary in Lane County, Oregon grew slightly faster than properties inside the UGB.
- Finally, there is no evidence of slower rates of increase overall for the Oregon lands studied compared to lands in the Washington counties studied.

**Development Location**

The data presented here do not, therefore, support the belief that Oregon’s land-use system has systematically reduced the value of restricted properties. The results are consistent, however, with the design of Oregon’s land-use planning system and with economic principles. Oregon’s land-use planning system is not intended to limit the *amount* of development that occurs, but rather it is intended to influence the *location* of development in ways that are consistent with various land-use planning goals. Among those goals is an interest in concentrating the location of development within urban growth boundaries rather than allowing dispersed and fragmented developments. Sprawl or scattered development can raise costs for public services and infrastructure and produce adverse effects when incompatible land uses (e.g., farming and residential) are mixed.

**Farmlands**

In addition, our analysis finds that government programs such as Oregon’s special tax assessments for farmlands are likely to be “capitalized” into land prices, raising them by as much as 14 percent on average.

These findings are consistent with results from other economic studies. Studies from many other parts of the country, and some within Oregon, have found evidence of positive, negative, and neutral effects from land-use regulations, reflecting the fact that there are often substantial positive amenity and scarcity effects that can offset some or all of the negative restriction effects associated with land-use regulations.

**From the “Conclusions”**

**Measure 37 Assumptions**

Our analysis may surprise observers who witnessed the passage of Measure 37 in Oregon and the subsequent filing of thousands of Measure 37 claims based on the belief that land-use regulations have had large systematic and negative effects on property values.

Our analysis indicates that land values have generally risen since the introduction of Oregon’s land-use planning system in 1973. This trend has been true for rural lands zoned for farm and forest use as well as for developable lands inside and outside urban growth boundaries. Based on data for samples of parcels in three Oregon counties and two Washington counties, land values in Oregon have increased at rates similar to those for lands in similar counties in Washington. This has been true for farmland, for lands inside urban growth areas, and for lands outside urban growth areas. Based on our Oregon data, growth rates for land values inside and outside urban growth boundaries have been similar since the implementation of Oregon’s land-use planning system in 1973. Values for lands zoned for exclusive farm or forest use have risen at rates similar to, or higher than, lands zoned for residential use.

**Rising Land Values**

These results are consistent with other economic studies and with economic reasoning, as well as with the design of Oregon’s land-use planning system.

First, many studies have found that land-use regulations can have significant effects on property values. In many cases the net effects of regulations are positive, while in other instances there may be no effects or negative effects. ...Our results, which show no general reduction of market value for lands under restrictive land-use regulations, are consistent with these other findings.

**Land Use  
Regulation****UGBs****Range of Effects****No  
“Systematic  
Adverse Effects”****Confused  
Perceptions**

Second, our results are consistent with one key aspect of Oregon’s land-use planning system—the requirement that cities maintain a 20-year supply of vacant land within their UGBs. As populations grow, cities are expected to expand the boundaries of their UGB continually to maintain this 20-year buffer. Thus, the UGB does not necessarily impose a binding constraint on the amount of development, but instead is aimed at controlling its location and minimizing the amount of fragmented and dispersed development. It is noteworthy, for example, that although there are more than 2,000 Measure 37 claims in areas surrounding Portland’s UGB, there are an estimated 28,000 acres of vacant land inside the UGB (Jaeger and Plantinga 2007).

Although our results suggest that the average landowner was not adversely affected by regulations, the situation could be different for a particular landowner. For example, landowners with properties located just outside the UGB may have fared worse under regulations than they would have without regulations. On the other hand, some landowners may have done better with land-use regulations than without (e.g., those with properties just inside the UGB, but less desirable than other locations for reasons such as distance to downtown, elevation, etc.).

More generally, some landowners may experience negative “restriction effects” that outweigh the positive “amenity effects” or “scarcity effects,” while at the same time other landowners experience the opposite. Thus, as markets respond to amenity and scarcity effects, it is quite possible that a regulation that imposes no overall constraint on the amount of land developed will constrain some landowners from taking advantage of real opportunities for higher value uses. This situation also can arise in part because of the diversity of land characteristics, particularly the presence of open space near parcels just inside or outside the UGB.

Third, the perception that landowners have been denied large financial gains as a result of land-use regulations may be due in part to differences in land values that existed prior to the introduction of land-use regulations. Indeed, our analysis suggests that current differences across zoning types or location relative to the UGB do not reflect systematic adverse effects of land-use regulations. Rather, our data provide evidence that these differences in property values existed prior to the enactment of regulations. When these initial differences are accounted for, the growth rates in land values have been similar over the past 30 years for the different categories. Thus, the relationship between the per-acre values of lands near cities (inside the UGB) and those farther from cities (outside the UGBs) has remained largely the same. This seems to be the case when comparing land values in Oregon in the pre-1973 and post-1973 periods, and it also is true when comparing trends in Oregon with trends in Washington for similar counties.

In many cases, perceived opportunities for financial gain (those that seem to be blocked by a land-use regulation) would not exist if not *for* the land-use regulation (Jaeger 2006). For example, land-use regulations can create potential opportunities for some landowners because the regulations have restricted opportunities for others. Regulations can affect the scarcity of land in the marketplace and protect and preserve amenities such as open space surrounding a specific property. As a result, while it may seem that the regulation is denying a landowner an opportunity, in reality it may be creating the opportunity.

This confusion could be reduced by recognizing the fundamental distinction between (a) the effect of enacting and enforcing a land-use regulation on *many* properties, and (b) the effect of removing a land-use regulation from *one* property (see Jaeger 2006, Jaeger and Plantinga 2007). The latter often seems to provide a landowner with a large windfall, and this observation often is interpreted as evidence that land-use regulations generally reduce the values of affected properties. Indeed, if a land-use regulation has actually increased property values, an exemption for an individual property often will allow additional gains for that particular landowner.

...The two components of this study—the analysis of Oregon and Washington data and the review of economic literature—seem to reinforce our understanding that landuse regulations and other government actions affect property values in complex and interconnected ways. The economics literature includes studies that identified both positive and negative effects. Some studies examined cases where regulations restricted individual landowners from actions that would increase their property’s value, but where positive reciprocal effects outweighed the effect of the limitation. Finally, the evidence from Oregon is consistent with these perspectives, offering no evidence to support the view that land-use regulations have systematically reduced property values in Oregon.

**FOR ADDITIONAL INFORMATION, CONTACT:** William Jaeger, Oregon State University Department of Agricultural and Resource Economics, 541/ 737-1419 or email: [wjaeger@oregonstate.edu](mailto:wjaeger@oregonstate.edu)

## ENVIRO BRIEFS

**WQ PERMITS REVISION****DEQ SEEKING COMMENT****JULY PUBLIC MEETINGS**

DEQ is proposing to revise and renew five Water Pollution Control Facility (WPCF) general permits that control wastewater discharges from sand and gravel operations, wineries, food processors, petroleum hydrocarbon cleanup operations, and vehicle washing.

DEQ is proposing the revisions to clarify and update permit conditions to reflect current regulatory and recommended practices that ensure that surface water and groundwater in Oregon is protected. All five permits had expired by June 30, 2007.

DEQ is accepting public comments on the proposed changes through 5pm Monday, July 23. Information on the proposed permit changes is available on DEQ's website: [www.deq.state.or.us/wq/wqpermit/permitdocs.htm](http://www.deq.state.or.us/wq/wqpermit/permitdocs.htm).

DEQ will hold five public hearings across the state in mid-July to accept written and oral comments and to provide an overview of the proposed changes. All hearings will begin at 6pm. (See below & Calendar.)

PERMITS PROPOSED FOR REVISION INCLUDE:

**WPCF 1000 (Sand and Gravel**

**Operations)** — required for sand, gravel and other non-metallic mineral and mining operations that dispose of all process wastewater and stormwater by recirculation, evaporation, and/or controlled seepage. This permit also covers asphalt and concrete batch plants and their associated activities.

**WPCF 1400-A (Wineries and Fresh**

**Pack Operations)** — required for wineries and seasonal fresh pack/produce operations that discharge wastewater by land application only. Discharges are not to exceed 25,000 gallons per day.

**WPCF 1400-B (Wineries and Food**

**Processing Operations)** — required for wineries and food processors that prepare their product by cooking, pickling, slaughtering or by other mechanical or thermal processes. Wastewater may be disposed of by land application, evaporative pond or by an on-site wastewater treatment and disposal system. Dischargers are not to exceed 25,000 gallons per day.

**WPCF 1500-B (Petroleum****Hydrocarbon Cleanup Operations)**

— required for petroleum hydrocarbon cleanup operations that discharge contaminated groundwater or surface water. The permit also covers wastewater injection and bioremediation activities.

**WPCF 1700-B (Vehicle and Other**

**Washing Operations)** — required for vehicle, equipment, building and pavement cleaning activities that discharge wastewater by means of evaporation, seepage or irrigation. The permit applies to both mobile and non-mobile operations.

PUBLIC HEARINGS: Medford (7/10); Bend (7/11); Pendleton (7/12); Portland (7/16); Salem (7/17). (See Calendar)

CLOSE OF COMMENT: July 23, 2007

**For info, contact:** Scott Manzano, DEQ Surface Water Management Program, 503/ 229-5185

**HAZWASTE FINES****PERMIT VIOLATION****UMATILLA DISPOSAL FACILITY**

DEQ has issued three separate penalties against Washington Demilitarization Co. LLC, which operates the Umatilla Chemical Agent Disposal Facility in Hermiston along with the US Army. The facility, which operates under a Hazardous Waste Treatment and Storage Permit issued by DEQ, incinerates stockpiled chemical weapons from the Army-owned Umatilla Chemical Depot. The penalties are for a wide range of permit and hazardous waste violations that occurred in late 2006 through early 2007. Most of the violations were self-reported by Washington Demilitarization and others were discovered through DEQ investigations. The three combined penalties total \$284,600.

A penalty totaling \$206,400 covers violations that occurred during the last half of 2006. DEQ conducted an investigation of the violations after they were reported in Washington Demilitarization's Quarterly Self-Reported Noncompliance Reports.

VIOLATIONS INCLUDED:

- Failing to properly operate its Automatic Waste Feed Cut-Off systems while feeding hazardous waste into the facility's Deactivation Furnace System

and Metal Parts Furnace

- Exceeding the permitted waste feed rate to the Metal Parts Furnace
- Failing to properly operate one chemical monitor for a twelve hour period.
- Improperly operating exhaust filters in the Metal Parts Furnace
- Failing to determine whether waste generated at the facility was hazardous waste prior to shipment off-site for recycling.
- Failing to keep a container of hazardous waste closed
- Failing to follow the facility's Contingency Plan
- Failing to notify DEQ of changes in operation of equipment from approved designs and specifications within the time frame required by the permit.

After additional self-reporting from Washington Demilitarization and follow-up investigations by DEQ in January and February 2007, DEQ assessed another penalty, totaling \$22,200. Violations cited included improperly operating the Automatic Waste Feed Cut-Off System while treating hazardous waste, and failing to keep a container of hazardous waste (a 55-gallon container of personal protective equipment) closed.

In its March 1, 2007 Potential Noncompliance Report, Washington Demilitarization reported that it failed to conduct annual inspections of nine primary containment sumps and one secondary sump in the Munitions Demilitarization Building, as required by its permit. These violations led to a penalty totaling \$56,000.

"DEQ is concerned about the repeated violations at the facility involving improper operation and monitoring of incineration equipment," said DEQ Eastern Region Administrator Joni Hammond. "I know that Washington Demilitarization has taken major steps to correct these violations and is working to reduce the frequency of the violations. Overall, we are satisfied with the direction the facility is moving."

Washington Demilitarization and the Umatilla Chemical Depot have undertaken extensive investigations to determine the system limitations that led to these noncompliance events. Several procedural changes and system upgrades have been implemented, which have greatly

improved the facility's compliance performance during the second quarter of 2007.

Appeal procedures allow 20 days for Washington Demilitarization to appeal these most recently assessed penalties.

**For info, contact:** Rich Duval, DEQ Umatilla Chemical Demilitarization Program Administrator, Hermiston, 541/567-8297 x22;  
Les Carlough, DEQ Compliance and Enforcement, 503/229-5422

### VESSEL DISCHARGES

#### EPA DEVELOPING PROGRAM COMMENTS SOUGHT

EPA is seeking information as it considers how to develop a water permit program for pollutant discharges incidental to the normal operation of commercial vessels and recreational boats. Discharges may include ballast water, bilge water, deck runoff and gray water.

As a result of a court ruling currently under appeal, vessel owners or operators whose discharges previously have been exempt from federal Clean Water Act requirements will require a permit on Sept. 30, 2008. In developing this program, EPA will seek to ensure that control technologies or management practices enhance environmental protection and are practical to implement.

Approximately 143,000 commercial vessels and potentially more than 13 million state-registered recreational boats and more than 25 different types of vessel discharges could be affected. The exemption from permitting requirements has been in place for more than 30 years.

The changes are the result of a recent US district court ruling that found EPA exceeded its authority by excluding discharges incidental to the normal operation of a vessel from existing permitting requirements (*Northwest Environmental Advocates et al. v. EPA*, No. CV 03-05760 SI.). EPA is appealing that ruling.

EPA is seeking public comments and data to help the agency develop a permitting framework that recognizes various vessel characteristics and types of discharges. Specifically, EPA needs information about vessel identification and operations, owner notification, discharge impacts, pollution control equip-

ment and practices, and commercial and recreational vessel traffic patterns. The 45-day comment period began June 21.

**For info, contact:** Ruby Cooper, EPA, 202/564-0757 or email: cooper.ruby@epa.gov

EPA WEBSITE:

[www.epa.gov/owow/invasive\\_species/ballast\\_water.html](http://www.epa.gov/owow/invasive_species/ballast_water.html)

### PESTICIDES VIOLATION

#### EPA ENFORCEMENT

In early June, Aldis Manufacturing LTD., (Aldis) located in Wilsonville, Oregon, reached a \$3,120 settlement with EPA for importing improperly labeled pesticides, in violation of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).

According to EPA, on February 5, 2007, Aldis submitted a Notice of Arrival of Pesticides and Devices (Notice of Arrival) through their import broker declaring that they planned to import 95,400 kilograms of their recently registered pesticide, "Kull 62 MUP." "Kull 62 MUP" is a glyphosate-based chemical used in manufacturing other herbicide formulations and is produced in China.

FIFRA requires that importers submit a Notice of Arrival to EPA with information about any pesticide shipments due to enter the United States. EPA then reviews the Notice of Arrival to ensure that the pesticides comply with FIFRA and are properly registered and produced in EPA registered establishments before allowing them into the country.

Through conversations with Aldis and a February 13, 2007, inspection conducted by the Oregon Department of Agriculture on EPA's behalf, EPA discovered that the individual containers of "Kull 62 MUP" lacked the EPA accepted label, and therefore were in violation of FIFRA.

"By law, all imported pesticides intended for use in the United States must be properly labeled and registered," said Chad Schulze, EPA's Pesticide Enforcement Officer in Seattle. "This helps ensure that when used as directed, these pesticides do not pose a risk to human health and the environment."

EPA is pleased that Aldis updated the misbranded labels of "Kull 62 MUP"

quickly after they were told that the containers were improperly labeled.

**For info, contact:** Chad Schulze, EPA, 206/553-0505 or email: [schulze.chad@epa.gov](mailto:schulze.chad@epa.gov)

EPA PESTICIDES WEBSITE: [www.epa.gov/pesticides/](http://www.epa.gov/pesticides/)

### ANIMAL FEEDING OPERATIONS

#### EPA AIR EMISSION STUDY

EPA has announced the beginning of the first-ever nationwide study of air emissions from poultry, dairy and swine animal feeding operations (AFOs).

With EPA oversight, researchers from eight universities will take part in a two and one-half year, \$14.6 million study to measure levels of hydrogen sulfide, particulate matter, ammonia, nitrous oxide, volatile organic compounds and other gases from livestock facilities. The research began in June at 24 sites in nine states.

EPA concluded in the late 1990's that it did not have sufficient air emissions data for AFOs, which made it difficult to determine the compliance status of AFOs with existing air emissions requirements. EPA began discussions with AFO owners in 2001. Ultimately, EPA developed an innovative and voluntary consent agreement with the AFO industry. This agreement established a framework for farmers to participate in a monitoring study. Over 2600 agreements were signed, representing approximately 14,000 swine, dairy, egg-laying and broiler chicken (meat-bird) farms (an AFO can include more than one farm).

As part of the consent agreement, AFOs contributed to a fund to pay for the monitoring study. The study is being conducted by Purdue University and its partners.

EPA intends to use the data from the monitoring study to develop an improved method for estimating emissions from individual AFOs. EPA believes this innovative agreement will bring farms into compliance more quickly than could have been accomplished through traditional, case-by-case enforcement.

**For info, contact:** Dave Ryan, EPA, 202/564-4355 or email: [ryan.dave@epa.gov](mailto:ryan.dave@epa.gov)  
EPA Study website: [www.epa.gov/agriculture/airmonitoringstudy.html](http://www.epa.gov/agriculture/airmonitoringstudy.html)

**NANOTECHNOLOGY**

**TOXICITY RISKS**

**EPA FUNDS OSU STUDY**

EPA has announced the award of two grants totaling almost \$600,000 to Oregon State University (OSU) for nanotechnology research. These grants will evaluate whether some manmade nanomaterials could be toxic to human health.

Nanotechnology is the science of manipulating extremely small particles – those ranging in size range of 1 to 100 nanometers. The physical, chemical, electronic, and optical properties of these nanoparticles may be different from the same material in larger form.

The first OSU grant award, for \$400,000, will screen a wide range of commonly manufactured nanomaterials to determine their potential interactions with biological processes. If the OSU research team, led by Dr. Robert Tanguay, finds nanomaterials that produce adverse effects, they will identify the potential cellular and genetic targets of these nanomaterials and group the particles by composition and effects.

The second OSU grant award for \$199,993 will determine how manmade nanomaterials could damage or kill cells. Dr. Alan Bakalinsky is studying the relationship between specific characteristics of nanoparticles, like shape and structure, and their effects on cells. The work is expected to lead to the development of safety guidelines for industrial and environmental exposure to nanomaterials.

Manmade nanomaterials are currently found in hundreds of consumer products like cosmetics, clothing and personal care products.

**For info, contact:** Robert Tanguay, OSU, 541/ 737-6514; Dr. Alan Bakalinsky, OSU, 541/ 737-6510

EPA NANOTECHNOLOGY RESEARCH WEBSITE: [www.epa.gov/ncer/nano](http://www.epa.gov/ncer/nano).

**CALENDAR**

**July 10**

**Water Quality Permit Revisions Public Hearing, Medford.** Community Justice Center, Main Floor Conference Room, 1001 W. Main, Suite 101. RE: DEQ Revision/ Renew Water Pollution Control Facility (WPCF) General Permits for Wastewater Discharges: Sand & Gravel Operations; Wineries; Food Processors; Petroleum Hydrocarbon Cleanup Operations; and Vehicle Washing Operations. Comments accepted through July 23. (See Brief, this *Insider*) For info: Scott Manzano, DEQ, 503/ 229-5185, or DEQ website: [www.deq.state.or.us/wq/wqpermit/permitdocs.htm](http://www.deq.state.or.us/wq/wqpermit/permitdocs.htm)

**July 11**

**Water Quality Permit Revisions Public Hearing, Bend,** Health and Human Services Building, Lewis and Clark Room, 1300 NW Wall St., Suite 101. RE: DEQ Revision/ Renew Water Pollution Control Facility (WPCF) General Permits for Wastewater Discharges: Sand & Gravel Operations; Wineries; Food Processors; Petroleum Hydrocarbon Cleanup Operations; and Vehicle Washing Operations. Comments accepted through July 23. (See Brief, this *Insider*) For info: Scott Manzano, DEQ, 503/ 229-5185, or DEQ website: [www.deq.state.or.us/wq/wqpermit/permitdocs.htm](http://www.deq.state.or.us/wq/wqpermit/permitdocs.htm)

**July 11-12**

**Northwest Power & Conservation Council Meeting, Portland,** Council Offices: 851 SW Sixth Avenue, Ste. 1100. For info: NWPPC, 800/ 452-5161 or website: [www.nwcouncil.org](http://www.nwcouncil.org)

**July 12**

**Water Quality Permit Revisions Public Hearing, Pendleton,** City Hall, Community Room, 501 SW Emigrant Ave. RE: DEQ Revision/ Renew Water Pollution Control Facility (WPCF) General Permits for Wastewater Discharges: Sand & Gravel Operations; Wineries; Food Processors; Petroleum Hydrocarbon Cleanup Operations; and Vehicle Washing Operations. Comments accepted through July 23. (See Brief, this *Insider*) For info: Scott Manzano, DEQ, 503/ 229-5185, or DEQ website: [www.deq.state.or.us/wq/wqpermit/permitdocs.htm](http://www.deq.state.or.us/wq/wqpermit/permitdocs.htm)

**July 12-13**

**3<sup>rd</sup> Annual Emerging Northwest Tribal Economies Conference, Seattle.** For info: The Seminar Group, 800/ 574-4852, email: [info@theseminarargroup.net](mailto:info@theseminarargroup.net), or website: [www.these-minargroup.net](http://www.these-minargroup.net)

**July 12-13**

**Department of Fish & Wildlife Commission Meeting, Lincoln City.** For info: Director's Office ODFW, 503/ 947-6044, email: [odfw.commission@state.or.us](mailto:odfw.commission@state.or.us), or website: [www.dfw.state.or.us/agency/commission/minutes/](http://www.dfw.state.or.us/agency/commission/minutes/)

**July 16**

**Oregon Task Force on Land Use Planning Meeting, Lake Oswego.** RE: Review of Oregon Statewide Planning Program & Recommendations to Land-Use Policy to the 2009 Legislature. For info: Becky Steckler, Dept. of Land Conservation & Development, 503/ 373-0050 x286 or website: <http://centralpt.com/pageview.aspx?edit=1&id=15666>

**July 16**

**Water Quality Permit Revisions Public Hearing, Portland,** DEQ Headquarters, EQC-A Conference Room (10<sup>th</sup> floor), 811 SW Sixth Ave. (SW Sixth & Yamhill). RE: DEQ Revision/Renew Water Pollution Control Facility (WPCF) General Permits for Wastewater Discharges: Sand & Gravel Operations; Wineries; Food Processors; Petroleum Hydrocarbon Cleanup Operations; and Vehicle Washing Operations. Comments accepted through July 23. (See Brief, this *Insider*) For info: Scott Manzano, DEQ, 503/ 229-5185, or DEQ website: [www.deq.state.or.us/wq/wqpermit/permitdocs.htm](http://www.deq.state.or.us/wq/wqpermit/permitdocs.htm)

**July 16-17**

**Fundamentals of Air Dispersion Modeling Workshop, Portland.** For info: Trinity Consultants, 800/ 613-4473 or website: [www.trinityconsultants.com/Training/](http://www.trinityconsultants.com/Training/)

**July 17**

**DEQ Air Toxics Science Advisory Committee Meeting, Portland,** DEQ Hqtrs., 811 SW 6th Avenue, 8:30am-11:30 am. For info: Gregg Lande, Air Quality, 503/ 229-6411 or 800/ 452-4011 x6411

**July 17**

**Water Quality Permit Revisions Public Hearing, Salem,** Salem Public Library, Anderson Room B, 585 Liberty St. SE. RE: DEQ Revision/ Renew Water Pollution Control Facility (WPCF) General Permits for Wastewater Discharges: Sand & Gravel Operations; Wineries; Food Processors; Petroleum Hydrocarbon Cleanup Operations; and Vehicle Washing Operations. Comments accepted through July 23. (See Brief, this *Insider*) For info: Scott Manzano, DEQ, 503/ 229-5185, or DEQ website: [www.deq.state.or.us/wq/wqpermit/permitdocs.htm](http://www.deq.state.or.us/wq/wqpermit/permitdocs.htm)

**July 18**

**Global Warming Part 3, Seattle.** For info: Holly Duncan, Environmental Law Education Center, 503/ 282-5220, email: [hduncan@elecenter.com](mailto:hduncan@elecenter.com) or website: [www.elecenter.com/](http://www.elecenter.com/)

**July 18**

**Air Quality Permitting in Oregon Workshop, Portland,** Trinity Education Headquarters. For info: Trinity Consultants, 800/ 613-4473 or website: [www.trinityconsultants.com/Training/](http://www.trinityconsultants.com/Training/)

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**July 18-19**

**AERMOD Computer Modeling Laboratory, Portland.** RE: EPA's preferred computer model. For info: Trinity Consultants, 800/ 613-4473 or website: [www.trinityconsultants.com/Training/](http://www.trinityconsultants.com/Training/)

**July 19**

**Annual Northwest Environmental Business Council Cascade Golf Tournament, Aurora.** Langdon Farms Golf Course. For info: Sue Moir, NEBC, 503/ 227-6361 or email: [sue@nebc.org](mailto:sue@nebc.org)

**July 19**

**Managing Greenhouse Gas Emissions, Workshop, Chicago, IL.** RE: Preparing Effective Greenhouse Gas Inventories & Conducting Greenhouse Gas Emission Calculations According to WRI/ WBCSD Greenhouse Gas Protocols and Other State Registry Protocols, such as the California Climate Action Registry Protocols. For info: Trinity Consultants, 800-613-4473 or website: [www.trinityconsultants.com](http://www.trinityconsultants.com)

**July 19**

**Northwest Water Trading & Marketing Conference, Portland.** For info: The Seminar Group, 800/ 574-4852, email: [info@theseminar-group.net](mailto:info@theseminar-group.net), or website: [www.theseminar-group.net](http://www.theseminar-group.net)

**July 19-21**

**Rocky Mountain Mineral Law Institute 53rd Annual, Vancouver.** For info: RMMLF, 303/ 321-8100, email: [info@rmmlf.org](mailto:info@rmmlf.org), or website: [www.rmmlf.org](http://www.rmmlf.org)

**July 25-26**

**Stormwater Monitoring and Data Analysis Under New NPDES Phase I & II Regulations Workshop, Seattle.** NW Environmental Training Center HQ, 650 S. Orcas Street, Ste. 220. RE: Tools To Design & Implement Stormwater Monitoring Program for New Phase I and II Permit Requirements. For info: Renata Sobol, NWETC, 206/ 762-1976, email: [rsobol.nwetc.org](mailto:rsobol.nwetc.org), or website: [www.nwetc.org/](http://www.nwetc.org/)

**July 26**

**Board of Forestry Field Tour, Location TBD.** For info: Dan Postrel, ODF, 503/ 945-7420 or website: <http://egov.oregon.gov/ODF/BOARD/index.shtml>

**July 26-27**

**TMDLs in the Pacific Northwest, Seattle.** For info: Law Seminars Int'l, 800/ 854-8009, email: [registrar@lawseminars.com](mailto:registrar@lawseminars.com), or website: [www.lawseminars.com](http://www.lawseminars.com)

**July 27**

**Oregon Coastal Law 2007, Environmental and Natural Resources Section of the Oregon State Bar Presentation, Newport.** Hatfield Marine Science Center, 8am-5pm. RE: Law Affecting the Oregon Coast and Near Shore Ocean: Tribal Resources, Marine Protected Areas, Wave Energy, Measure 37 on the Coast, Marine Mixing Zones, More. For info: [www.osbenviro.homestead.com/](http://www.osbenviro.homestead.com/)

**July 30-31**

**Environmental & Natural Resources Litigation Conference, Seattle.** Washington State Convention & Trade Center. For info: Law Seminars Int'l, 800/ 854-8009, email: [registrar@lawseminars.com](mailto:registrar@lawseminars.com), or website: [www.lawseminars.com](http://www.lawseminars.com)

**August 3**

**Department of Fish & Wildlife Commission Meeting, Salem.** For info: Director's Office ODFW, 503/ 947-6044, email: [odfw.commission@state.or.us](mailto:odfw.commission@state.or.us), or website: [www.dfw.state.or.us/agency/commission/minutes/](http://www.dfw.state.or.us/agency/commission/minutes/)

**August 9-10**

**Land Conservation & Development Commission Meeting, Salem.** Agriculture Building, 635 Capitol St. NE, Basement Hearing Room, 8am. For info: Sarah Watson, DLCD, 503/ 373-0050 x271, or email: [sarah.watson@state.or.us](mailto:sarah.watson@state.or.us)

**August 9-10**

**Renewable Energy in the Pacific Northwest Conference, Seattle.** Sheraton Hotel. Includes Special Address by FERC Commissioner Jon Wellinghoff. For info: Law Seminars Int'l, 800/ 854-8009, email: [registrar@lawseminars.com](mailto:registrar@lawseminars.com), or website: [www.lawseminars.com](http://www.lawseminars.com)

**August 14-15**

**Introduction to ArcHydro: Managing and Mapping Hydrologic Data with ArcGIS Workshop, Olympia.** Evergreen State College, 2700 Evergreen Parkway NW. For info: Renata Sobol, NWETC, 206/ 762-1976, email: [rsobol.nwetc.org](mailto:rsobol.nwetc.org), or website: [www.nwetc.org/](http://www.nwetc.org/)

**August 14-16**

**Northwest Power & Conservation Council Meeting, TBA, Washington.** For info: NWPPC, 800/ 452-5161 or website: [www.nwcouncil.org](http://www.nwcouncil.org)

**August 16-17**

**Oregon Environmental Quality Commission Meeting, Western Region.** For info: Helen Lottridge, DEQ, 503/ 229-6725, or website: [www.deq.state.or.us/about/eqc/EQCagendas.htm](http://www.deq.state.or.us/about/eqc/EQCagendas.htm)

**August 29-30**

**Oregon Water Resources Commission Meeting, TBA.** For info: Cindy Smith, OWRD, 503/ 986-0876, or website: [www.wrd.state.or.us/OWRD/COMMIS/calendar.shtml](http://www.wrd.state.or.us/OWRD/COMMIS/calendar.shtml)

**August 30**

**Oregon Task Force on Land Use Planning Meeting, Albany.** RE: Review of Oregon Statewide Planning Program & Recommendations to Land-Use Policy to the 2009 Legislature. For info: Becky Steckler, Dept. of Land Conservation & Development, 503/ 373-0050 x286 or website: <http://centralpt.com/pageview.aspx?edit=1&id=15666>

**September 5**

**Board of Forestry Meeting, Salem.** State Forester's Hdqts. For info: Dan Postrel, ODF, 503/ 945-7420 or website: <http://egov.oregon.gov/ODF/BOARD/index.shtml>



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