

**Date:** June 10, 2011

**To:** Environmental Quality Commission

**From:** Dick Pedersen, Director

**Subject:** Agenda item L, Informational item: Director's dialogue  
June 15-17, 2011, EQC meeting

**DEQ's emergency response and cleanup programs**

DEQ's emergency response and cleanup programs have had a busy spring. As the commissioners may remember, DEQ has been involved with the response to the decrepit *Davy Crockett*, a WWII-era Liberty Ship, on the Columbia River. Ballard Diving and Salvage, a salvage crew from Seattle, has mostly dismantled the barge, and the cleanup could be done by the end of June. The cleanup has removed or recovered 1.7 million gallons of oily water, about 500,000 pounds of oily debris, 4,850 pounds of asbestos and 2.3 million pounds of steel. The funds for cleanup came from a federal oil spill cleanup fund, and have totaled over \$14 million to date.

In early May, a rail car carrying ethanol derailed and caught fire on Highway 30 north of Portland. DEQ emergency response and cleanup staff responded to the derailment, and worked with the Oregon Department of Transportation and Federal Railway Administration to determine the environmental damage caused by the ethanol. DEQ monitored the marshlands near the crash site and determined that there were no significant impacts to that area or the Multnomah Channel from the ethanol.

The Oregon Legislature specifically directed DEQ's emergency response and cleanup these programs to work in collaboration with other agencies and industry to prevent and respond to spills of oil and hazardous materials, and the *Davy Crockett* and railcar incidents are great examples of the fast response and collaborative work that typifies these programs.

**Hermiston Foods and neighboring farms update**

Hermiston Foods irrigated approximately nine million gallons of stored water from its lagoon in April and May. The company reports that there are about one million gallons remaining in the lagoon, down from 10 million. DEQ received one odor complaint in early April.

The facility installed a second aerator during the first week of April and both aerators were operated when the lagoon was still full. DEQ anticipates that only one aerator will operate when the lagoon is low. Overall, DEQ expects that the second aerator has helped to reduce lagoon water odor.

DEQ will hold a hearing for the Hermiston Foods permit modification the evening of June 21. The modification replaces generic language prohibiting “leaching” with specific language prohibiting movement of moisture and wastewater constituents, mostly nitrogen, from the fifth foot of the soil column. The modification also includes a description of how soil moisture monitoring identifies violations.

DEQ continues to work with the Hermiston Foods staff, IRZ Consulting and the Reuse Consortium on the soil moisture based irrigation scheduling program. DEQ also continues to work with the Reuse Consortium on development of acceptable wintertime irrigation practices. Additionally, the Reuse Consortium is developing best management practices for monitoring and reporting, soil sampling and testing and nitrogen application rates.

### **Woodstove change-outs in DEQ’s program under federal stimulus funding**

As part of the federal stimulus funding program in Oregon, DEQ has administered a woodstove change out program in areas of the state with air quality issues associated with particulate emissions. The program has facilitated, through local agencies working directly with residents, the change out of 305 stoves, of which 263 were full replacements for low-income residents. Klamath Falls has replaced 176 stoves, Lakeview has replaced 70 stoves, Oakridge has replaced 35 stoves and Harney County has replaced 24 stoves

Oakridge estimated that it needed to change out 40 to 50 stoves to meet its particulate emissions goal, and the program has been successful in getting the community much closer to its goals in the past 18 months. DEQ has received many letters from residents who are very happy about the change out program, and the Oregon Department of Energy is pleased with the program’s progress. DEQ is gearing up for the next push to make sure all project funds are spent by the end of the year in accordance with the program requirements.

### **Graywater rulemaking update**

DEQ is currently responding to public comments received on proposed rules for graywater reuse and disposal systems. The proposed rules were available for public comment from late January through March 11, 2011. At four public hearings held in Portland, Bend, Eugene and Ashland, DEQ presented an overview of the proposed rules and provided an opportunity for oral testimony. DEQ received oral and written comments from 47 individuals or organizations, and will make appropriate revisions to the proposed rules based on those comments. DEQ will ask the commission to consider adoption of rules for graywater reuse and disposal systems at the August 2011 meeting.

### **Revising water quality standards for the West Division Main Irrigation Canal near Hermiston**

DEQ is developing revised water quality standards for the West Division Main Irrigation Canal near Hermiston. Some beneficial uses for the canal were over-generalized in the standards development, and resulted in inappropriate standards for the canal. The West Division Main Canal near Hermiston is a fabricated irrigation canal that carries water from the Umatilla and Columbia Rivers to area farms. The City of Hermiston wastewater treatment plant, which is permitted to discharge to the Umatilla River, has requested to discharge highly treated effluent to the canal where it can be re-used for irrigation. The city prefers this alternative to discharge to the Umatilla River, where it would be difficult to meet temperature and other water quality standards.

DEQ concurs that canal discharge is a better alternative for the environment. As such, DEQ will start a rulemaking process to revise the water quality standards for the canal. This entails removing or changing inappropriate designated beneficial uses, and establishing modified criteria. DEQ plans to propose a draft rule for public comment in October and recommend EQC action in February 2012. In support of this goal, DEQ initiated the rule making process in late May for this standards modification.

### **Klamath Falls updates**

DEQ, the city of Klamath Falls and Klamath County are working together on a number of air, water and land quality projects, and this update is a comprehensive look at the projects, the relationships between the agency and the city and future concerns for the city and its neighbors.

### ***North Ridge Estates - Update on Superfund status***

During September 2010, Oregon used its one-time pick to place North Ride Estates on the Superfund National Priorities List. In March 2011, EPA initiated the listing process to place North Ride Estates on the National Priorities List. EPA did not receive any comments in response to the listing's public notice and comment period. DEQ expects the final listing in late summer or fall 2011. When the listing is final, EPA will prioritize North Ride Estates for U.S. Congressional funding. It should be noted that, once the site is placed on the National Priorities List, the site remediation costs may require Oregon to contribute a match that could total several million dollars. This match obligation will not be required, however, for several biennium and can be spread over several additional biennia. The National Priorities Panel will evaluate and recommend remedial funding for the North Ride Estates project. DEQ does not know the timeline for that consideration.

EPA is planning to take interim removal action measures at North Ridge Estates, starting in June. These measures include the excavation of asbestos-containing materials from four selected properties, hauling the materials to a selected onsite repository, and covering the materials with a

temporary cap. EPA will notify residents and local officials before of these activities. DEQ will have a field presence in support of EPA during this interim removal measure. EPA hopes to conduct additional interim removal measures during 2012.

DEQ has worked very closely with EPA, congressional members, state legislators, and city and county elected officials. DEQ has also involved the public at appropriate junctures along the way. DEQ anticipates that EPA will arrange for public outreach, possibly to include a public meeting, when it releases a final, signed record of decision on the property's Superfund listing. That could reasonably occur by late summer, but it is more likely to be fall 2011. Typically, these meetings include broad community outreach to local officials, media, stakeholders, and interested parties and DEQ will participate in this process.

### ***Status of air quality in Klamath airshed***

Klamath Falls area is currently in violation of the short-term, 24-hour, federal standard for fine particulate pollution. This pollution is typically associated with smoke produced by burning activities, including woodstoves, industrial sources, mobile sources, agricultural burning and forest management activities. Fine particulate pollution can cause respiratory and cardiac health problems, particularly for the elderly and young children.

Recently the American Lung Association gave Klamath County an "F" grade for short-term, 24-hour, air quality. This grade was based on 2007-2009 monitoring data that demonstrated the Klamath Falls area exceeded the federal fine particulate standard more than three days per year on average during this time. The American Lung Association also gave Klamath County a "passing" grade for demonstrating compliance with the annual federal fine particulate standard during the same time period.

In response to Klamath Falls' failure to meet the short-term fine particulate standard, DEQ must prepare a study and develop an attainment plan to demonstrate how Klamath Falls will comply with the federal health standard. DEQ must submit this plan to EPA by December 2012 and show compliance with the standard by 2014. DEQ has a strong partnership with Klamath County Environmental Health. Together, the agencies formed an advisory committee as a way for the people who will be affected by the plan to help shape it. Meetings are well underway and the next is planned for June 22 and will be aired live on local community access television. The plan is to continue airing these meetings live on local television.

As noted in an earlier update, DEQ is currently managing a woodstove change-out program in the Klamath Falls area utilizing federal stimulus funds. DEQ is administering this program in partnership with the South Central Oregon Economic Development District. Monitoring data suggests replacing inefficient woodstoves with efficient certified heating devices may improve the air quality within Klamath Falls. As noted in my report on the Heat Smart Program 176

woodstoves have been replaced in the Klamath Falls area under this program. Klamath County operates an air quality advisory program that advises residents when it is safe to use their woodstoves.

### ***Air quality improvements in Klamath Falls***

Overall air quality has dramatically improved in the Klamath Falls area since 1991, when EQC adopted the Klamath Falls particulate matter, or PM10, attainment plan. Klamath Falls met the particulate matter standard in 1994 and has continued to meet the standard since that time.

EPA initially set standards for fine particulate matter, or PM2.5, in 1997 and DEQ began monitoring for this pollutant in Klamath Falls in 1999. Klamath Falls met all federal fine particulate matter standards until 2006, when EPA reduced the federal short-term, 24-hour, fine particulate standard by approximately 46 percent. It is important to realize Klamath Falls' fine particulate pollution levels, defined as concentrations on a 98th percentile basis, have been fairly consistent since monitoring began in 1999, but the federal standards have been tightened, thus triggering the violation.

### ***General and ongoing outreach and relationship building***

DEQ regularly meets with Klamath County commissioners and local legislators regarding air quality concerns and program work. DEQ worked very closely with the county to support its proposed alternative non-attainment boundary proposal to EPA, which was mostly successful. DEQ also provides regular updates on the woodstove project, progress on the Air Quality Advisory Committee, and other issues as needed.

The Klamath Air Quality Advisory Committee is composed of 12 citizens representing multiple interests within the community. The committee meets monthly for one year to develop pollution reduction strategies. At the end of the process, the committee will provide plan recommendations to DEQ. These meetings are open to the public, who are notified through state-issued press releases. The committee meetings are broadcast on the local public access TV.

Once the plan is formulated by DEQ, it will go through the standard rulemaking process, which includes public hearings and EQC approval. DEQ's representative to the South Central Economic Revitalization Team is the DEQ Eastern Region Air Quality Program Manager, who keeps the group informed of the air quality activities within Klamath Falls.

### ***Arsenic concerns in Klamath Falls***

The City of Klamath Falls is very concerned about arsenic effluent limits that DEQ may place in its NPDES permit at renewal. Influent to the city's wastewater treatment plant contains unusually high arsenic concentrations, likely a result of high concentrations in groundwater that infiltrates into the system and possibly other sources. Achieving the low concentrations required by DEQ's

water quality standards may be very costly and the city is concerned this may overwhelm other wastewater improvements. DEQ is working to alleviate these requirements through its new arsenic standard for human health, variance and background rules. DEQ has met with the city to address this issue and to plan for the future of toxics reductions from their plant.

***Upper Klamath and Lost Rivers Total Maximum Daily Loads***

DEQ issued the Upper Klamath and Lost Rivers Total Maximum Daily Loads, or TMDLs, Dec. 21, 2010. This TMDL responded to known violations of water quality standards for temperature, dissolved oxygen, pH, ammonia toxicity and chlorophyll-a. Other than temperature, high concentrations of phosphorus affect the parameters in Upper Klamath Lake, which largely controls conditions downstream in the Klamath and Lost Rivers. A 2002 TMDL for Upper Klamath Lake estimated that a significant proportion of available phosphorus was from human activities, but the larger proportion was natural and would challenge water quality even without the human component. Some people have criticized the TMDL as unachievable. DEQ based pollutant limits for both Upper Klamath Lake and Upper Klamath and Lost Rivers on estimates of the best natural conditions achievable with all human sources of pollutants removed. This natural conditions criterion and small pollutant additions allowed by water quality standards formed the expected water quality conditions that would flow in the Klamath River downstream to California. The TMDLs for Upper Klamath Lake, Upper Klamath and Lost Rivers, and Klamath River in California, a California TMDL, represent a comprehensive budget of pollutants from the lake to the Pacific Ocean and were developed in cooperation with California and Regions 9 and 10 of the USEPA.

Though there are 37 sources named as responsible for reducing or controlling pollutants in the recent TMDLs, the most direct regulatory connection is permitted point sources. There are four sources with individual National Pollutant Discharge Elimination System permits, all centered in or near Klamath Falls. DEQ has had regular meetings with each of these four sources to discuss their options related to the new pollutant limits. The four sources are the City of Klamath Falls wastewater treatment plant, South Suburban Sanitary District wastewater treatment plant, Columbia Forest Products and Collins Products. All of the smaller communities in the basin have discontinued surface water discharges and found alternative means of discharging wastewater on land.

DEQ based the effluent limits for these four sources on the expected conditions of Upper Klamath Lake after full implementation of that TMDL. Though DEQ does not expect Upper Klamath Lake to achieve these conditions for decades, the federal Clean Water Act requires permitted effluent limits to reflect the water body meeting standards, which means the natural conditions in this case. The limits established by the TMDL are achievable but will require costly additions to the treatment processes of these facilities.

The City of Klamath Falls was assigned pollutant load limits in the recently issued TMDL for Upper Klamath and Lost Rivers. The most constraining of these limits requires significant reductions in phosphorus discharges, which will only be achieved through advanced treatment technology. Estimates of the costs of construction of this technology have ranged from about \$2 million to \$12 million. Aside from these limits, the city's treatment plant is very old and in need of substantial restoration simply to continue meeting minimum treatment requirements. The city has estimated that upgrade costs for the plant may be as high as \$85 million if discharge to the river continues and more if discharge is discontinued. DEQ recently awarded the city a low-interest state revolving fund loan for up to \$40 million, and the city has recently borrowed the first \$1 million of that amount to begin basic upgrades to the plant. DEQ has met individually with members of the city council, local legislators, the full Klamath Falls City Council and Klamath County commissioners numerous times.

### ***Reconsideration of the TMDL***

Following issuance of the TMDLs, DEQ received timely requests for reconsideration from three of the permitted sources named above, and four nonpoint sources. The requests reflected a variety of concerns ranging from excessive cost of implementation to criticism of the mathematical modeling used in the TMDL. Director Pedersen accepted the petitions and directed staff to look at each of the stated concerns and consider whether DEQ followed its rules and ensure that the conclusions are sound. At present, managers and staff are meeting individually with the petitioners to ensure that DEQ understands and addresses their concerns appropriately. DEQ plans to finish the reconsideration by September. In the meantime, EPA has placed approval of the TMDL on hold while DEQ completes the reconsideration process. DEQ may or may not change the TMDL, based on its findings through the reconsideration process.

### ***Ongoing water quality improvements for the Upper Klamath Lake Basin***

There have been significant projects in the Upper Klamath Lake basin that may, ultimately, improve water quality and achieve TMDL expectations. Many of these improvements attain multiple benefits of water quality restoration and habitat improvement. They include:

- Breached levees on Williamson River Delta
- Completing plans to reconnect 63,700 acres of former wetlands at Barnes and Agency Lake Ranches to Agency Lake
- Completion of studies to reconnect 16,000 acres of Wood River wetlands to Agency Lake
- Development of the Klamath Tracking and Accounting Program to track water quality benefits of restoration projects and allow for trading of water quality metrics,
- Completion of non-point source best management practices implementation and aquatic habitat restoration projects
- Completion of sediment source immobilization projects through fence construction and off-stream livestock watering

- Ongoing implementation of the Upper Klamath Lake Drainage TMDLs by designated management agencies such as the U.S. Forest Service, Bureau of Land Management and the Oregon Department of Agriculture

DEQ worked with a group of stakeholders and agencies to develop a trading program for the Klamath Basin. The intent is to provide a tracking and accounting program that will provide both a registry for environmental projects and a resource to guide possible pollutant trading options for point sources. EPA, DEQ, California North Coast Water Quality Control Board, PacifiCorp, with assistance from the Willamette Partnership, and consultants for EPA and PacifiCorp are leading the program development phase.

DEQ is coordinating with other agencies on future pollutant reduction strategies. The Klamath Hydropower Settlement Agreement provides \$100,000 in funding to host a conference about implementation water quality pilot projects. The focus of this measure is to solicit expert input regarding feasibility of nutrient reduction technologies in the Klamath Basin above Iron Gate dam but including Upper Klamath Lake. Eight consensus-based project options have been identified for discussion at the workshop to be followed by feasibility studies:

1. Wetland treatment systems
2. Wastewater treatment systems
3. Algae / biomass removal
4. Ambient water treatment systems
5. Sediment nutrient sequestration
6. Sediment removal
7. Wetland restoration
8. Oxidation Technologies

### ***Klamath rulemaking for 401 certification of dam removal activities***

The Secretary of the Interior will determine if removal of dams on the Klamath River is feasible and desirable by spring 2012. If the Secretary makes the determination in favor of decommissioning, Oregon and California will have to concur before removal proceeds. Part of concurrence will be based on Oregon's ability to certify that water quality standards will not be violated by the removal of the sole Oregon dam, J.C. Boyle. DEQ expects that dam removal would cause short-term violations of the turbidity and dissolved oxygen standards, but water quality would be improved in the future with dam removal. DEQ is developing a rulemaking that would allow the agency to certify the removal of J.C. Boyle Dam despite the expectation that some water quality criteria would be violated in the short term. The rulemaking prepares for the possibility of dam removal, and is not a statement of support or opposition to any outcome. DEQ has recently seated a stakeholder advisory committee to provide input on the proposed rule and expects to finish the rulemaking by next spring. The advisory committee includes a cross section of stakeholders and agencies, including a county commissioner, representatives from the fishing community, an environmental group, a government representative from the Klamath Tribes, and



agency representatives from the National Marine Fisheries, the Bureau of Reclamation, and the U.S. Fish and Wildlife service.

***Falcon Heights community searches for wastewater management solution***

Falcon Heights, redeveloped in the mid 1990s into 290 privately owned homes, is located south of Klamath Falls and is surrounded by land zoned exclusive farm use. The development has a water sewer district that is proposing to build a new sewage treatment plant on exclusive farm use land to replace an aging eight-inch pressure transport pipe that currently connects to the Klamath Falls wastewater treatment system. Prior to redevelopment, the site was a military housing complex and initial construction most likely predated modern planning rules. Because the subdivision predates modern land use regulations which would have prevented treating sewage from outside of the Klamath Falls urban growth boundary, Klamath County has given them a conditional use permit to allow this plant on exclusive farm use land. DEQ has received over 70 letters of concern about the proposed plant from nearby residents.

The community is currently served by a three-mile-long pressurized pipe that carries sewage to the City of Klamath Falls wastewater treatment system. This pipe is in disrepair and the community is looking for a less expensive alternative than replacement of the pipe. The manager for the Klamath Falls wastewater treatment plant told DEQ that they have replaced their portion of the pipe and a pump station, but the remainder is private and the responsibility of the Falcon Heights community. He estimates the cost of the pipe replacement and pump station rebuild at something less than \$1.5 million, which may be less than the cost of a new treatment facility to treat nearly 300 homes and land application of wastewater for a portion of the year. The project would reportedly include two treatment lagoons, a storage lagoon for treated wastewater and land application. DEQ has not received an application for a permit, which would be required before a new treatment system can be constructed. A land use compatibility statement from the county is also required for DEQ permit issuance.

On March 22, the Klamath Board of County Commissioners held an appeal hearing on the conditional land use permit and remanded the matter back to the Planning Commission for further review. The commission's attorney made it very clear that the review was to only encompass the items noted in the appeal request and that both parties on the issue can weigh in. The matter has been placed on the Klamath County Commission's agenda for June 9 at 2 p.m. and DEQ staff, who attended the March 22 hearing, will attend the June 9 hearing.

***Southern Deschutes County and Northern Klamath County Groundwater Protection Project***

This project has an advisory committee comprised of residents from the two counties, and the purpose of the committee is to provide recommendations to the DEQ on how to best protect the groundwater and prevent contamination of surface water in South Deschutes and North Klamath counties. Currently, the committee is researching options to protect groundwater and hearing

informational presentations from experts including USGS hydrogeologists and representatives of companies that manufacture and install wastewater treatment systems.