

Clean Water Services Advisory Commission

Meeting Minutes

April 20, 2011

Attendance

Commission members Molly Brown, Alan DeHarpport, Lori Hennings, John Kuiper, Victoria Lowe, Mike McKillip, Deanna Mueller-Crispin, Judy Olsen, Stephanie Shanley, Jerry Ward, and Julie Wilson, and Clean Water Services District General Manager Bill Gaffi attended the meeting.

Commission Chair Tony Weller and Commission member Bill Young were unable to attend.

The meeting was also attended by Bruce Roll, Rich Hunter, Mark Jockers, Laura Porter, and Peter Ruffier, all of Clean Water Services.

1. Call to Order

The meeting was called to order by Vice Chair Lori Hennings at 6:33 PM in the conference room at the Clean Water Services Administration Building.

2. Introduction of New Advisory Commission Member

Mark Jockers, Clean Water Services Government and Public Affairs Manager, introduced Sandy Webb, who was appointed by the Clean Water Services Board of Directors on April 19, 2011 to the Environmental 2 position on the Commission. Ms. Webb is an attorney who has worked in municipal water law, including water and wastewater issues, for the City of Frederick, Maryland. She has lived in Oregon for two years and is in private practice specializing in land use planning, estate planning and business law.

3. Review/Approval of Meeting Minutes from February 16, 2011

Mark Jockers, Clean Water Services Government and Public Affairs Manager, noted one correction to the minutes. Near the top of page 3, the description of an ESU (equivalent service unit) as “approximately 640 square feet” should read “2,640 square feet.”

Victoria Lowe moved to approve the minutes as corrected. Molly Brown seconded the motion. Motion passed.

4. Watershed Management Overview and Healthy Streams Plan Update

Clean Water Services Watershed Management Department Director Bruce Roll, along with Rich Hunter and Laura Porter, presented an overview of Department activities, including accomplishments under the Healthy Streams Plan. Mr. Hunter is Water Resources Program Manager and Ms. Porter is Water Resources Analyst for the Department (presentation attached).

Showing a map of the Tualatin River watershed, Mr. Roll said it is rare for a whole watershed to be inside the boundaries of a single jurisdiction and the fact that the Tualatin watershed is almost

entirely within the Clean Water Services District is one of the reasons for the District's success. He said the District must accommodate rapid urban population growth in the watershed while keeping up with a variety of regulations such as the Clean Water Act, the Endangered Species Act, and Metro Title 13, just to name a few. These challenges provide opportunities to work within the regulatory framework to maximize environmental benefits and save money at the same time. He said the Healthy Streams Plan is one of the best efforts he has seen in integrating varied regulatory and other objectives under one project initiative.

Ms. Brown asked about Metro Title 13. Ms. Hennings, who works as an Ecosystem Program Monitoring Coordinator for Metro, explained that Title 13 refers to a regional fish and wildlife habitat program with voluntary and regulatory components; the regulatory part addresses "highest value" riparian corridors and jurisdictions can use a variety of approaches to comply.

Mr. Roll shared the Watershed Department's mission statement, "We build and strengthen innovative and resilient partnerships to enhance the benefits that natural resources provide to the community." He noted the emphasis on partnerships and the broad vision of natural resources, not just water alone. The Department has stayed relatively small with 10 full-time staff but has accomplished big things because of its emphasis on innovation and partnerships with other agencies and private groups, and its prudent use of contractors and seasonal staff. Its work has expanded from assessment, planning, and monitoring activities to include active stewardship and implementation of various projects in the watershed.

Mr. Roll said the biggest priorities for the Watershed Management Department right now are to continue developing water quality trading opportunities, identifying ecological needs of the Tualatin River Basin to provide for the greatest benefit at lowest cost, and participating in planning for the Tualatin Basin Water Supply Project. The Department works closely with the nonprofit Willamette Partnership in tracking state, regional, and national watershed issues, particularly water quality trading, and is involved in implementing the Healthy Streams Plan. The Department also has begun sharing expertise in resource recovery and restoration work with others through the recently-established Clean Water Institute.

Mr. Hunter shared a handout about the Healthy Streams Plan (HSP) (*attached*). The HSP was developed in response to regulations covering water quality, fish and other endangered species habitat, land use, and more. These diverse regulations forced a more holistic view of the Tualatin Basin. Extensive surveys involving more than 500 site visits, data collection about fish and other species, and other information about ecological characteristics were integrated with GIS mapping to help understand how various agencies could meet diverse needs on a watershed scale. The Department has been involved with the HSP capital program, which focuses on "green infrastructure"—streams, wetlands, floodplains and upland buffers, stream-related conveyance systems such as culverts and stormwater outfalls which are directly connected to streams, and flow restoration.

Mr. Hunter shared a map showing the hundreds of stream and wetland enhancement or restoration sites throughout the Clean Water Services District. One of the most popular and successful aspects of the HSP is the "Stream Planting Challenge," a cooperative effort with cities and organizations to plant 2 million native trees and shrubs in 20 years. In the first seven years, more than 1 million plants have been planted at 250 sites by nearly 20 different environmental and community groups involving

more than 30,000 volunteer hours. Other types of stream and wetland capital projects include off-channel enhancements, channel reconfiguration to restore more natural form and improve stream flow and function, large wood placement in-stream for fish habitat, and even burning of vegetation from agricultural land to restore former prairie areas. One of the largest projects is a mile-long riparian planting along both sides of Gales Creek. Ms. Hennings observed very few projects appear to be along the Tualatin mainstem. Mr. Hunter said that there are some large rural projects managed by the SWCD and Metro along the mainstem, but most of the river is outside city limits, and the largest number of sites are urban community efforts.

Mr. Hunter said stream-related conveyance projects under the HSP so far have been mostly culvert retrofits for fish passage, but could also include installation of structures to create a more natural stream bottom or reduce erosion. Partnerships have been important in completing more than 100 culvert projects—Washington County did more than 90, Clean Water Services 10, and the Watershed Council about five. Cities have also contributed to the repair and retrofit of culverts. The criteria for prioritizing these projects varied with the agency responsible for them, with some sites being specifically targeted and others being done “opportunistically” in the course of other previously-scheduled work.

Ms. Hennings asked if the culvert projects included features for small mammal passage, such as ledges. Mr. Hunter said that would be an interesting addition and he would like to see information that would help determine where such features would be most useful. Ms. Porter noted that sort of work was included in some recent culvert upgrades in the McKay Creek area.

Mr. Hunter displayed a map showing flow restoration pilot projects and numerous other sites where flow is limiting the water quality of a stream. A Healthy Streams Plan survey of 516 streams that should have had water year-round found that 271 of them did not. The streams which are most impacted in terms of water rights and withdrawals also have significant salmonid habitat resources and are the highest priority for flow restoration. These include Gales Creek, upper Dairy Creek, upper McKay Creek, and Chicken Creek and Cedar Creek, both near Sherwood. Several sites have had direct flow augmentation during critical summer periods as part of the pilot project, and other sites are being studied with an eye toward developing a Flow Enhancement Master Plan.

Mr. Roll noted that Clean Water Services holds the nation’s first watershed-based NPDES (National Pollutant Discharge Elimination System) permit, which combines TMDL (Total Maximum Daily Load) requirements for wastewater and stormwater and allows for “trading” or “credits” toward the temperature standard for water quality. Under a conventional permit, Clean Water Services would have built capital- and energy-intensive chillers to cool treatment plant effluent to the required temperature and then discharged it into the warmer river. Under the watershed-based permit, Clean Water Services can implement a variety of practices to support overall stream health, including lowered temperature, in tributaries and the mainstem. The results are credited toward permit temperature requirements. Capital improvement resources can be directed to riparian plantings, flow enhancement, and other activities which restore a more natural cooling function to the watershed, improving not only water quality but water quantity and aquatic and riparian habitat. This provides greater environmental benefit for a longer time over a larger area at the same or lower cost than could be achieved by simply chilling effluent. Mr. Roll said the idea of redirecting resources from a single purpose to multiple coordinated efforts that result in an equal or greater outcome is also being developed for wetlands mitigation requirements, salmon habitat, and upland prairie restoration.

Mr. Hunter described the Half Mile Lane project as an excellent case study of how these principles can be effectively applied. A good project has not only the desired ecological uplift and improvements to water quality, water quantity, and habitat but can also quantify those benefits for credits toward meeting permit requirements so that it is more than just an acre-for-acre tradeoff. The Half Mile Lane project is on Roderick Creek, up Gales Creek past Forest Grove. Both creeks are important for steelhead habitat. The Half Mile Lane section of Roderick Creek was straightened sometime before the first aerial photos in 1938. The surrounding area is primarily in agricultural use, with a small urban area at the bottom of Gales Creek. The 60-acre site was identified for restoration about 10 years ago during the Watershed Council's first assessments on Gales Creek. The land has changed hands since then and the landowner's desire to consolidate nursery operations coincided with interest from several agencies and organizations with funding available to put some of the new approaches into practice. The project developed riparian shade along Gales Creek for temperature credits. Roderick Creek was reconfigured to a more natural channel configuration, native vegetation was re-established, and conservation easements put into place to protect the restoration site. The nursery can grow native wetland plants in the riparian area, which helps the environment, but can then offer them for sale, which helps sustain the business. The nursery is one of the first in the area to be certified as "salmon-safe."

Mr. Roll discussed some of the challenges of using an integrated approach for projects such as Half Mile Lane. A major challenge is getting to a regulatory framework which incorporates the concept of evaluating broad ecological benefits and overall environmental health rather than specific measurements for certain parameters. Also, it can be difficult to quantify the value of a project in terms of the ecological uplift, significant change in function, size of area and its relationship to the overall landscape. Another issue is "incentivizing" tradeoffs so resources are directed to places such as the Half Mile Lane site, where the relative benefit from the investment is very high, instead of to lower functioning sites where there may not be much natural value. The cost of compensating property owners when land is taken out of production for conservation easements is also a concern, as is ensuring the duration of those easements. It is also a challenge to keep programs relatively simple to administer, with so many different regulations and interested agencies. And there is always the knowledge that some projects will fail, and those costs will need to be covered through an insurance pool or by doing more projects than actually needed.

Bill Gaffi, Clean Water Services District General Manager, commented that it would be nice to keep costs low enough that small landowners can continue to participate—and the lower the unit cost, the more land that can be influenced.

Ms. Brown asked about the project work schedule. Mr. Hunter said the work was done last summer and planting is finished. Mr. Hunter will email a more recent photo. A new aerial photo will be taken this summer.

Mr. Roll said he recently heard a panel of representatives from several Federal agencies discussing buffers and pesticide application regulations. After each panel member described their agency's role, the first question from the audience was "How are you working together to make sense of all this?" and no one on the panel could provide an answer. Mr. Roll said for him, this underscored the need to step back and look at how we can address environmental issues in ways that make sense. Pilot projects like Half Mile Lane push us in new directions and that makes some agencies uncomfortable,

but meaningful success will require changes in our current approach.

Ms. Porter said the flow restoration pilot projects are another good case study. She explained that flow restoration offers an additional mechanism for meeting permit temperature requirements through trading, and provides some flexibility in meeting requirements over the long term. The flow restoration projects involve moving water from Barney Reservoir and Hagg Lake through the Tualatin Valley Irrigation District (TVID) pipeline system and releasing it into the upper tributaries of the Tualatin River during the late summer and early fall when stream flows are low and peak need for the TVID system has passed. The first pilot project began in 2005 when two release points were established on McKay Creek downstream of Highway 26. The typical flow there is 1-15 cubic feet per second (cfs), so releasing another 2 to 2.5 cfs offered significant improvement. With the increase in flow during July through October, water temperature decreased and dissolved oxygen increased, resulting in improved aquatic habitat. Two more projects began in 2009 with the release of an additional 1 to 3 cfs into Gales Creek in August through October, with the same results. East Fork Dairy Creek was added as a pilot project in 2010 and West Fork Dairy Creek is being studied for addition this summer. The pilot project results will inform development of the Flow Restoration Master Plan.

Ms. Hennings asked where the water to increase flow is coming from, as this program is not based on buying back water rights, and Ms. Brown asked how the water actually gets into the streams. Ms. Porter clarified that the water for flow restoration projects is part of the amount allocated to the Clean Water Services District and stored in the Barney Reservoir and Hagg Lake. The District releases the water into the Tualatin River and it is pulled into the TVID system at the Springhill Pump Station. From there it can be directed to the desired release point through the TVID's 90 miles of pipeline. Clean Water Services works with the Tualatin Basin Watermaster to coordinate releases with irrigation withdrawals.

Ms. Webb asked about monitoring and if the Watermaster keeps track of how long the water stays in the stream and where it goes. Mr. Roll said it can be hard to accurately monitor a relatively small amount, but the Watermaster does use the USGS (United States Geological Survey) meters that are in place throughout the system. He said the Department is working on where and how to set up a monitoring network.

Ms. Porter said that like wetland and riparian restoration and enhancement, flow enhancement has its challenges. The regulatory framework must continue to evolve to acknowledge the success demonstrated through the pilot projects. Another challenge is dealing with the landowner contracts required for such projects, which could become labor-intensive as the program expands. Competing interests for the available water supply may become an issue, but may also present trading opportunities. It will be a challenge to balance the flow needs of the stream with instream water rights. The Department will need to look carefully for flow enhancement projects which can also be used for water quality trading credits.

With the meeting running behind schedule, information in the handout related to the Tualatin Basin Water Supply Project was not discussed.

Mr. Roll concluded by saying that the future for the watershed goes beyond the Watershed Management Department at Clean Water Services--it is many groups coming together with multiple

sources of revenue to meet multiple needs, embracing the Integrated Water Resources Management approach to put together sizable, meaningful projects that make sense ecologically as well as economically. He said the Department will continue working with other agencies and groups, including other departments at Clean Water Services, to expand flow restoration opportunities, identify and protect natural areas and habitat, address regional water supply issues, and maximize use of natural systems.

In light of discussion about coordinating efforts toward overall watershed health, Ms. Lowe mentioned to the surprise and interest of all present that she learned at a recent Joint Water Commission meeting that the State has just done a 695-acre clear-cut around Barney Reservoir. She said the person who gave the presentation at the meeting noted that a 100-foot buffer was left even though only a 25-foot buffer is required. Ms. Lowe said the State also plans to spray the area. She pointed out that not only is this a source of drinking water but these activities could cause sediment and temperature issues all the way down the Tualatin. She hopes Clean Water Services and others will join the City of Forest Grove in expressing concern about these activities. Mr. Gaffi observed that sediment in reservoirs reduces storage capacity in addition to the water quality issues it creates.

5. Announcements

Ms. Hennings noted the agenda includes a reminder of the Clean Water Services Budget Committee meeting on Friday, May 6. Mr. Jockers said the Committee includes Advisory Commission members Molly Brown, Alan DeHarpport, Lori Hennings, John Kuiper, and Tony Weller. Committee members will receive the draft budget Friday, April 29.

6. Adjournment

Ms. Hennings declared the meeting adjourned at approximately 8:20 PM.

(Meeting notes prepared by Sue Baumgartner)